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AN IDENTIFICATION OF THE NEEDS OF PRE-SERVICE PRIMARY  
TEACHER EDUCATION IN CROSS RIVER STATE, NIGERIA,  
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DISSERTATION

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By

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The purposes of this study are to (1) identify and classify the needs of pre-service primary teacher education in Cross River State, Nigeria; (2) establish a priority of identified needs by perceived importance; and (3) propose a model for the preparation of primary teachers in Cross River State, Nigeria, based upon the needs identified.

The population for the study consisted of 34 officials of the Ministry of Education, 44 teacher educators, 117 practicing teachers, 105 student teachers, and 20 citizens. Data were collected by questionnaires sent to the respondents relative to the preparation of primary teachers. The data from the responses were tabulated, compared, and summarized, using descriptive and inferential statistical procedures. A needs index was calculated by dividing the mean for each is item by the mean for each should be item so that, the smaller the quotient, the greater the need. A one-way analysis of variance was computed to determine whether the differences between group means were significant at the .05 level. To

determine how the groups differed in their responses, the Scheffé test was utilized.

The major findings of the study are the following. Thirteen of the 20 most important goals rated by the four combined professional groups relate to teaching strategies. Sixteen of the 20 goals rated highest by officials of the Ministry of Education are the same as those in the 20 most important goals of the four combined professional groups. Significant differences exist among the perceptions of the four combined professional groups regarding the importance that is currently attached to 18 of the 20 most important goals. However, the groups seem to agree on the importance that should be attached to these goals. Thirty-two of the 62 goals in the upper three quartiles of importance, as determined by the needs index, are teaching strategies, 15 are personal characteristics, and seven are teacher intellectual characteristics.

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## CHAPTER I

### INTRODUCTION

One of the objectives of primary education in Nigeria is "the inculcation of permanent literacy, numeracy, and the ability to communicate effectively," as stated in the Federal Republic of Nigeria's report National Policy on Education (11, p. 7). Although there is no statistical evidence to show that either this objective is or is not met, the rate of pupil dropout and lack of achievement in some Nigerian primary schools seem to indicate that the objective is not being met and that the ability of primary teachers may be in doubt.

Beeby (3, pp. 15-17) indicates that the report of UNESCO's World Survey of Education supports the above view. The report states that in Africa it is estimated that of every one hundred children who enter the primary schools only about forty complete the course of study. It might be argued that no minimum period of schooling is necessary to establish permanent literacy, but the failure of the school leaver to use what little skills were learned in school may suggest the failure of students' school experiences. In addition, Beeby identifies poor teaching as one of the contributing causes of pupil wastage in

schools in emergent countries; other causes are poverty, ill health, and irregular attendance. He goes on to say that if, in fact, poor teaching is a major cause of wastage, then there is undoubtedly a need to plan a reform of the schools.

This lack of achievement and pupil wastage, which is distressingly high in some primary schools in Nigeria, make parents and other concerned individuals worry about the schools and the performance of primary teachers. The Ashby Commission Report (13, p. 17), for example, points out that the teaching profession, a service upon which Nigeria's economic and cultural future depends, has earned a deplorable reputation because of lack of achievement and pupil dropout.

Onwuka (21, pp. 29-38), who reports the views of Nigerians in an article on teachers and teaching in Nigeria, quotes a Nigerian educator as saying that the standard of education in Nigeria has deteriorated terribly. A few years ago, teachers understood what they were after. Today, the education of young teachers is weak. What they need is a good general educational background before professional training. Other criticisms of teachers are also related to their preparation. For example, a religious leader states,

Teachers are after good education as they have realized that good education is the foundation of happiness. The desire to become highly educated has, on many occasions, brought set-backs and

backwardness to the pupils' progress in that some teachers concentrate on their personal studies even in the classroom in order to pass the General Certificate of Education examination and enter universities (21, p. 29).

The overall situation is summarized by the Bishop of Lagos, Nigeria:

We believe that teaching should be a profession. People who go into it should be qualified, and be men of respect. Teaching is now regarded as a means of livelihood--lacking love, respect, and dignity. Though the noblest of professions, teaching in Nigeria is the sorriest of trades (21, p. 38).

These views serve to suggest that there is a need to study and improve the pre-service education of teachers in Nigeria. These problems also lead to questions about the functions and purposes of teachers' colleges, which currently are not well defined. Questions also may be raised about the overall structure of teacher education in Nigeria, which is based on the level that the teacher will teach after graduation.

Presently, there is a hierarchy of programs and institutions for the training of teachers in Nigeria (10). The Teachers' Grade Two training colleges provide a five-year training program for primary teachers. Graduates of this program earn the Teachers' Grade Two Certificate, the equivalent of a high school certificate although it includes some professional training. The advanced teachers' college offers a three-year teacher education program for high school graduates who want to teach in

the junior high school; these graduates earn the National Certificate of Education (NCE) and may enter universities for a three-year teacher education program that results in a bachelor's degree in education. The universities offer a four-year degree program for high school graduates who achieve high scores in the West African School Certificate Examination, which is taken at the end of the five-year high school program (10).

Based on the compartmentalized nature of the training system for teachers in Nigeria, several questions may be raised. Should the advanced teachers' colleges and the universities in Nigeria limit themselves to the preparation of secondary teachers, leaving the primary teacher preparation to the Grade Two teacher training colleges? Should the preparation program of teachers in large urban areas be different from that of rural district primary teachers? What type of relationship should exist between student teachers and their training institutions after graduation? These questions suggest some of the problems of pre-service teacher education in Nigeria.

Concerning the issue of the functions of teachers' colleges, Brown believes that one of the objectives of teachers' colleges is to

. . . give the best possible pre-service teacher education to a carefully selected group of young people sufficient in number and with sufficiently varied types of training to furnish the state in

which the teachers' colleges are located with the number of new teachers needed annually (6, p. 592).

If this function is accepted, then the phrase "carefully selected group" points to another problem in the preparation of teachers in Nigeria. The training of a "carefully selected group of . . . people" implies selective admission of candidates in order that those who are less qualified in personality or intellectual capability may not be accepted as prospective teachers. Discovering ways by which selective admission may be accomplished may improve the preparation of primary teachers in Nigeria. There has been no study, however, which shows that the present method of selecting student teachers through entrance examination is inefficient.

The government conducts a common entrance examination to select students for either secondary education or teacher training. Each candidate then has the option to choose teacher education or secondary education. Beckett and O'Connell (2, pp. 53-56) report an instance in Nigeria in which a student was advised against his will to go to a teachers' college after his primary education; the student complained, "But then I began to regret my going to a teachers' college because I felt I had a limited opportunity of furthering my education compared with boys in the secondary schools" (2, p. 53). Commenting on the problem of selective admission, Watts (24, pp. 120-122)

states that the problem of selective admission must be considered carefully if high-quality applicants are to be chosen.

Another problem that relates to teacher education in Nigeria is the insufficient number of qualified teachers to be hired to teach in the primary schools. This problem deepened with the introduction of universal primary education throughout the country in 1976. In fact, McDowell (16, p. 58) reports that the Federal Commissioner for Education noted that about 35 per cent of the teachers hired in 1977-1978 were either unqualified or untrained.

Currently, some teachers in the primary schools are hired without any professional training and therefore are unable to perform adequately. They are particularly unable to observe, record, and interpret children's behavior. This problem should be examined carefully by institutions that offer preparation programs for prospective teachers. Brandt and Gunter (5, pp. 149-151) believe that, without appropriate training and practice in how to observe and record behavior, teachers typically cannot separate facts from opinions, diagnose individual behavior accurately, or understand why individual children do what they do. Stone adds that "teaching is a human relationship. To behave effectively good teachers must possess the most accurate understanding about students and their behavior" (22, p. 103).

Another problem of pre-service teacher education in Nigeria is the lack of adequate funds for equipment such as videotapes, cassette tape recorders, projectors, filmstrips, and science equipment. This lack of funds often affects the type of programs provided in the teachers' colleges.

The above problems might be better addressed with a different program that is based on the prescribed needs identified by those affected. The participants in such a study--officials of the Ministry of Education in Cross River State, Nigeria (school board members, the Permanent Secretary, and Inspectors of Education), and teacher educators, student teachers who are about to begin student teaching, practicing teachers, and selected citizens--could therefore provide some basis for modifying and improving primary teacher preparation in Nigeria.

#### Statement of the Problem

The problem of the study concerns the identification of the needs necessary to improve pre-service primary teacher education in Cross River State, Nigeria.

#### Purposes of the Study

The purposes of the study are as follows:

1. To identify and classify the needs of pre-service primary teacher education in Cross River State, Nigeria;



2. To establish a priority of the identified needs by perceived importance;

3. To propose a model for the preparation of primary teachers in Cross River State, Nigeria, based upon the identified needs.

### Research Questions

Based on the problem and purposes of this study, answers are sought to the following research questions.

1. What are the needs of pre-service primary teacher education in Cross River State, Nigeria, as expressed by the following groups: (a) officials of the Ministry of Education, (b) teacher educators, (c) student teachers, (d) practicing teachers, and (e) selected citizens?

2. Based upon the identified needs, what are the classifications of these needs?

3. What priorities are assigned to the various needs by the surveyed groups?

4. In what ways can these needs be incorporated in a plan for improving primary teacher education in Cross River State, Nigeria?

### Background and Significance of the Study

This section on the background and significance of the study is divided into two subsections. The first discusses factors that affect education in general and

teacher education in Nigeria in particular; the second subsection discusses the history of teacher preparation in southern Nigeria.

### Factors Affecting Education and Teacher Education in Nigeria

The problem of teacher education in Nigeria can be better understood if certain factors related to the Nigerian educational system are explored. These factors include the rate of population growth, the cultural mores of the people, the ratio of urban to rural population, the informal or traditional educational philosophy, and the religious influences of Islam and Christianity.

The first factor that affects education and teacher education in Nigeria is the rapid growth in population, which has doubled in the last two decades; the current estimate is that Nigeria's population is between 80 and 90 million. Adepaju (1, p. 13) says that the growth is greatest among the young. In addition, McDowell (16, p. 52) reports that primary school enrollments were one million in 1950, 2.9 million in 1960, 3.5 million in 1970, and over 10 million in 1980. This increase in enrollment within the past thirty years obviously compounds the need for more trained school teachers.

The second factor is the Nigerian family system, in which parents, grandparents, and other close or distant

relatives live together. This system, which is part of Nigeria's cultural heritage, encourages the traditional involvement of close relatives and other community members in the education of young children. McDowell (16, pp. 55-56) states that children learn, among other things, the local history of their tribes, victories in wars against other tribes, and riddles and proverbs of the area. Other forms of cultural mores learned include superstitious beliefs and respect for elders. For example, most heathen homes believe that evil spirits roam the streets; parents in such homes always offer sacrifices to their ancestors and ask for the protection of their children against evil spirits.

The third factor is the continuing movement of persons from rural to urban areas to look for white-collar jobs (1). This population shift has created a drain upon farming communities and activities and has contributed to the problem of Nigeria becoming a major food importer, whereas agricultural exports dominated the economy only twenty years ago. Furthermore, the civil service and industries cannot absorb everyone who has moved into urban areas. As a result, primary education is affected. Children who move with their parents into urban areas should receive immediate safety education; for example, they need to know what to do before crossing a road, how to use electrical appliances,

and where to get help in any emergency when both parents are at work. In addition, those parents who have had little or no education before moving into an urban area, according to Adepoju (1, p. 8), need adult education in order to have minimum job skills.

The fourth factor that affects both education and teacher education in Nigeria is the traditional philosophy of informal education. Informal education may be defined as learning and teaching that take place locally in the community context. The first informal teachers are the family, close relatives, peers, and adult members of the community. Fafunwa (10, p. 20) states that some of the outcomes of traditional informal education are the development of the child's latent physical skills, the inculcation of respect for elders and those in positions of authority, and helping the child to understand, appreciate, and promote the cultural heritage of the community at large.

The fifth factor is the religious influences of Islam and Christianity. These religions have made a great contribution to the character development and moral training of the children in the communities. Their beliefs in separate schools for girls and boys is not encouraged, however, by the Nigerian school system; currently, most Koranic and Christian schools are coeducational (16, p. 56).

An understanding of these factors that influence education and teacher education in Nigeria assists in studying the problem of pre-service teacher education in the country. The history of teacher education in Nigeria is also important to any study of teacher preparation.

### History of the Preparation of Teachers in Southern Nigeria

Nigeria has been dominated by two large religious groups--Islam in the north and Christianity in the south. Traditionally, these two religious groups prepared their own teachers for the primary schools each operated. Teachers prepared in Christian institutions were also trained as missionaries and evangelists in addition to preparation in the traditional subjects (9, p. 12).

Teacher training facilities for teachers in Christian schools in the south were provided by such religious groups as the Baptists, the Church Missionary Society (CMS), the Presbyterian Church, the Wesleyan Methodist Church, and the Roman Catholic Church. D'Oyley and Murray (9, pp. 10-14) say that one of the objectives in providing training facilities was to train not only teachers from among the native converts but also, and more importantly, ministers and teachers of God's word who would in turn evangelize Africa. One teacher training facility in Calabar in 1840, for example, was housed in a manse (a clergyman's

residence), had only six students, and was more interested in producing an educated ministry than in producing teachers.

It was only after 1850 that a separate teacher training college was established in Calabar. D'Oyley and Murray (9, p. 32) remark that the reasons behind establishing a separate teacher training center were the Baptists' fear of losing financial support from the British Quakers if the teacher training program were too closely allied to theological training and the secular views of the school's president.

Early elementary schools were established by voluntary agencies which were financed by grants from the Nigerian government. The number of schools established created a critical shortage of competent teachers. It was at this time that elementary school graduates were recruited. D'Oyley and Murray (9, pp. 33-38) state that these systems became a means of recruiting persons for admission to full professional teacher training. These new teacher recruits were tutored three times each week, and their achievement was appraised annually. Those who passed the annual subject examinations were allowed to continue to teach for a second year.

No professional preparation was required either of these new recruits or of those who chose other similar

preparation programs such as the one-year or two-year training programs. Professional preparation, including basic principles and an introduction to child study, was included only in the preparation program provided after two years of teaching experience and was labeled the Higher Elementary Teacher Training Program (9).

These programs did not meet the trained teacher requirements of the country after Nigeria gained its independence in 1960. The Ashby Commission, discussing the primary school teachers in Nigeria in 1960, reported "a staggering figure of 73 per cent with no more than a primary education to prepare the next generation" (13, p. 81). The one- and two-year teacher preparation programs were abolished in the late 1960s in favor of a five-year preparation program for those primary school graduates who sought a career in teaching. The two-year Higher Elementary Teacher Training Program is still available for high school graduates who choose to be teachers.

Ojo (20, pp. 30-31) discusses the launching of Universal Primary Education (UPE) in April, 1974, which required the training of more teachers for the successful beginning of the scheme in September, 1976. Crash programs for the training of teachers for UPE started in 1974, and the total number of teachers ready for the beginning of UPE was about 175,000. Ojo notes that about 35,000 were still needed, however. There were 156 Higher Elementary Teacher

Training colleges in 1974 throughout Nigeria, and seventy-four new teachers' colleges were given approval to open. McDowell (16, p. 58) comments that mass education came so abruptly in many areas of Nigeria that it was necessary to hire unqualified teachers.

McDowell (16, p. 58) reports that the Federal Commissioner of Education in Nigeria noted with regret that 70,000 of the 195,950 teachers in 1977-1978 were either unqualified or untrained. Further reliance on untrained teachers appears to be inevitable if the target of an additional 281,190 primary teachers, which is required by 1982, is reached. Some states are attempting to increase the production of trained teachers through in-service programs.

Reform attempts are also hindered by the large number of teachers who lack professional preparation and by large classes. In addition, insufficient facilities and materials add to the problem (16, p. 58).

Elementary school teachers in Nigeria teach all subjects as well as all classes in the schools. Because of these requirements, teacher training colleges must give their students a very broad foundation in both subject matter and methodology. In fact, the importance of an appropriate preparation program is underscored by Lewis (15, pp. 393-405), who states that the reform of the



curriculum of teacher education is seen as the key to the preparation of adaptable and imaginative teachers who will transform educational systems, which are currently dominated by rote learning and formalized instruction, into dynamic creative experiences for youngsters.

#### Definition of Terms

1. NCE teachers (National Certificate of Education) are high school and Teachers' Grade Two graduates who have gone through intensive teacher education programs for three years in a college of education (13).
2. Grade Two teachers have completed a five-year teacher education program for primary teachers, equal to completion of twelfth grade in the United States (12).
3. Need is the discrepancy between the current state and the desired state.
4. The UPE scheme (Universal Primary Education) is an educational policy adopted by the federal government of Nigeria to provide education for all children between six and twelve years of age (20, p. 30).

#### Delimitations of the Study

This study is limited to the needs of pre-service primary teacher education in Cross River State, Nigeria. The population sampled in the study is limited to the officials of the Ministry of Education, Cross River State,

Nigeria; teacher educators who held either a university degree in education or a three-year National Certificate of Education (NCE); student teachers who were in their final year of instruction and were about to begin student teaching; practicing teachers who had graduated from the various teacher training institutions and were holders of Teachers' Grade Two Certificates; and some selected citizens. The investigation excludes high school graduates who were hired temporarily to teach elementary science in primary schools (these high school graduates do not remain long in teaching; they stop teaching as soon as they obtain other employment) and "C's"--teachers who had taught for more than fifteen years without any formal training.

#### Limitations of the Study

This study is limited by the population, the number of responses from the population, and the validity of the instrument used.

#### Instrument

The instrument used in this study was designed on the basis of the information contained in the currently approved federal syllabus for the preparation of teachers in Nigeria, which is issued by the federal Ministry of Education, the Grade Two Teachers' Syllabus for Nigeria

(12). Some additions were made based on research experience and pre-service teacher education programs in other countries. The adaptations made reflect Charters and Waples' (8, p. 18) listed qualities of a good teacher, an American school district staff development planning instrument (14), and Bradley's (4) advice.

A five-person committee of experts in teacher education, drawn from the North Texas State University College of Education, was set up to validate the instrument. The instrument contains eighty goal statements grouped into five broad categories: (1) general education, (2) teacher behavior--diagnosing and goal-setting, (3) teacher function--teaching strategies, (4) teacher personal characteristics, and (5) teacher intellectual characteristics. Using a five-point scale of importance ranging from extremely high importance to no importance, respondents gave two judgments for each goal statement to indicate their perceptions of what importance is presently attached to the goal and what importance should be attached to the goal in the preparation of teachers in Cross River State, Nigeria.

The scale values are 5 = of extremely high importance, 4 = of high importance, 3 = of medium importance, 2 = of low importance, and 1 = of no importance. Is indicates the existing (perceived) attitudes toward the goals; should

be indicates what respondents desire (prefer) the goals to be.

### Procedure for Collecting Data

A survey was made to identify the needs that are necessary to improve pre-service primary teacher education in Cross River State, Nigeria. Sources of these data are responses to questionnaires which were sent to persons randomly selected for the study. The Federal Republic of Nigeria's National Policy on Education (11) was obtained from the Nigerian Embassy in Washington, D.C., and Cross River State, Nigeria education statistics were obtained from the Nigerian consulate in Atlanta, Georgia (17).

Participants in the study are officials of the Ministry of Education in Cross River State, Nigeria (these include the Permanent Secretary, Inspectors of Education, and school board members), teacher educators in the various teachers' colleges, student teachers who are about to start student teaching, practicing teachers who are graduates of a five-year teacher education program, and some selected citizens.

A list of names of the officials of the Ministry of Education was obtained from the Ministry of Information in Cross River State, Nigeria (19), and the list of the names of teachers and student teachers was obtained from the Ministry of Education headquarters in Calabar,

Nigeria (18). A list of names of teacher educators was obtained from the Teaching Service Commission in Cross River State, Nigeria (23). Citizens were selected from areas where teacher training colleges are located.

A systematic sampling, a procedure in which the first sample element is randomly selected and subsequent elements are chosen from every tenth interval, was used (for example, if the first element is 6, subsequent elements will be 16, 26, 36, and 46). This procedure was used to select 40 respondents out of 396 officials of the Ministry of Education, 140 respondents from 1,495 practicing teachers, 50 respondents out of 497 teacher educators, 150 respondents out of 1,597 student teachers, and 20 selected citizens whose children are in school. A list of their names was obtained from the Parents' Associations (7) of the various schools. Numbers were assigned to the names of the respondents to facilitate the selection. Responses from citizens were recorded orally. The questionnaires were personally distributed to the Nigerian respondents. A return rate of 60 to 65 per cent is considered necessary to provide the information that the study is seeking.

#### Procedure for Analysis of Data

The data collected from the officials of the Ministry of Education in Calabar, teacher educators, practicing teachers, student teachers, and selected citizens were

analyzed based on the recorded responses. The analysis of the data is described below.

1. Descriptive statistics--The means and standard deviations for each of the five groups in the study are calculated in terms of perceived is and should be priority of importance placed on each goal statement to satisfy the needs.

2. Inferential statistics--One-way analysis of variance is calculated using the means to determine whether significant differences exist between the groups with respect to perceptions of what is and what should be the priority of importance placed on each goal statement to satisfy needs.

3. Needs index--A needs index is determined by dividing the mean for is by the mean for should be:

$$\text{Needs index} = \frac{\text{Mean for each } \underline{\text{is}} \text{ item}}{\text{Mean for each } \underline{\text{should be}} \text{ item.}}$$

#### General Organization and Plan of the Study

Chapter I consists of an introduction, statement of the problem, purposes of the study, research questions, background and significance of the study, definition of terms, delimitations and limitations of the study, and procedures for collection and analysis of data. Chapter II consists of a review of related literature from books, articles, and unpublished materials. Chapter III includes

research procedures, description of population, development of the questionnaire, and collection and analysis of data. Chapter IV reports the data analysis, discussion of findings, and a model for the preparation of primary teachers in Cross River State, Nigeria. Finally, Chapter V summarizes the research and presents the conclusions and recommendations for future study.

### Development of the Model

The model to be developed for the improvement of teacher education in Cross River State, Nigeria, is based upon the needs identified by the groups surveyed and reflects the objectives of teacher education set by the Nigerian government. The components of the model are as follows.

1. General education component. Teachers, as individuals, are expected to play an important role in providing general education for children and to serve as models with the attitudes, knowledge, and skills to enrich human experience. Furthermore, the subjects studied in general education are useful to support their teaching at whatever level or class to which they are assigned.

2. Professional studies component. This includes a study of the subject content taught to pupils, ability to diagnose pupils' learning problems, and ability to prescribe remediation.

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3. Content. This includes a body of knowledge contained in a discipline, e.g., mathematics, science, language, etc.

4. Field experience. A preliminary field experience is provided for students to observe and work with children in actual school settings prior to student teaching.

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## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### Introduction

This chapter contains a review of literature that is related to programs designed for the preparation of primary teachers. Teacher education programs generally consist of four major elements: general education, academic specialization, professional studies, and clinical experiences. In addition to these program elements, a key concern is related to the admission of teacher candidates into a program. Therefore, the related literature covers these program elements and the admission process. Additionally, literature is presented that covers curriculum development which is based on needs assessment. The material is organized into seven major sections: (1) general education in teacher education in the United States, (2) general education in teacher education in Africa, (3) academic specialization, (4) professional studies, (5) clinical experiences, (6) admission of teacher candidates, and (7) needs assessment studies.

Even in the most developed countries, people are not fully satisfied with teacher performance. For example, a nationally known scholar points out the inefficiency of

teachers and blames it on the quality of pre-service programs; he declares, "the output of ineffective programs adds up to a stream of ill-prepared teachers greater than any in-service program can cope with" (68, p. 90). Speaking about a thorough overhauling of the system of educating teachers, Smith (68) emphasizes that the teaching profession will come into its own only when its members are highly prepared at the pre-service level. Smith's observations, although directed at teacher education in the United States, also seem to be applicable to the state of educational affairs in Cross River State, Nigeria.

#### General Education in Teacher Education in the United States

The values of a general education for all students have been underscored by authorities in the field of education. Carbone (12) comments that a strong general education background is indispensable not only for prospective teachers but also for all students generally. Carbone points out that a liberal education, to underline the obvious, is one that develops students' rational abilities, their cognitive skills, and the quality of their minds. He adds that this aspect of education needs support from all authorities.

Rich, a teacher educator who discusses a rationale for the liberal education of educators, states that "general

education appears to be in a sad state of disarray" (61, p. 27). The Carnegie Council on Policy Studies in Higher Education observes that the erosion of general education on many campuses is in one sense more serious than figures show because in many cases it is poorly defined and so diluted with options that it has no recognizable substance of its own (13, p. 184).

Pertinent studies on general education and its needs are prevalent in the literature. For example, studies conducted between 1967 and 1974 by Blackburn and others (10) on changes in general education at 210 four-year colleges and universities indicate

a marked trend away from specific requirements toward distribution requirements. Moreover, the proportion of a student's undergraduate program devoted to general education was about 22% less in 1974 than in 1967 (10, p. 14).

Rath's (60) study on the standards of general education in teacher education points out some trends in general education. One of the trends centers around the general policies in colleges that require so many hours in physical science, literature, and so on. Within such broad policies, the study reveals, almost anything goes. For example, a student might take geology instead of physics or Greek tragedy instead of black studies. The study reveals that, because of the "permissive stance" of colleges, students "choose [courses] for convenience" (60, p. 19).

For many years, organizations in the United States have supported a strong general education foundation so that individuals may be better prepared to teach. The Texas Commission on Standards for the Teaching Profession (73) recommends that all institutions which prepare teachers should include a broadly-based general education in the preparation program. The Commission states,

The institution seeking approval for undergraduate level teacher preparation shall provide or require a broadly-based general education curriculum that is designed to advance significantly the general literacy of all students and to provide higher levels of proficiency in the skills of communication, information retrieval and processing, and effective interaction with the multicultural society (73, p. 25).

The American Association of Colleges for Teacher Education (AACTE) (2) also emphasizes the inclusion of general education components in the pre-service program for teacher education. The report of its Task Force on Professional Excellence identifies "depth and breadth in general education in order to enhance the teacher's understanding of self and society" as one of the crucial, necessary features of training for effective teaching. Other crucial factors are

professional studies in social sciences to illuminate the behavioral, cultural, and technological variables affecting the human services profession; academic specialization; professional studies of foundations and generic and specific teaching knowledge and skills; and clinical experiences (2, p. 8).

The importance of general education in the curriculum for the training of teachers was also underscored in 1963 by the National Commission on Teacher Education and Professional Standards (53). Members of the Commission believed that the general education component for teacher education should include studies in each of the following fields:

Language--English, and for many students, one other language; literature; the fine arts and music; philosophy; mathematics; social and behavioral sciences; history, anthropology; political science; economics; geography; sociology; psychology; the physical and life sciences; and health and physical education (53, p. 12).

Additional support for general education programs for teacher education also comes from the National Council for Accreditation of Teacher Education (NCATE). The NCATE standards state,

Prospective students, like all other students, need a sound general education. However, this need is accentuated by the nature of their professional responsibilities that they are expected to assume. As teachers they are destined to play an important role in providing general education for children and youth and serve as models with their attitudes, knowledge, and skills to enrich the human experience and promote the positive human values of our multicultural society (54, p. 4).

The standards also include a statement to the effect that the subjects taught in general education may be needed to support the teachers' teaching specialties.

Apart from organizations that demonstrate support for the inclusion of general education components in the



preparation program for teacher education, individuals, authors, and researchers in teacher education curriculum also show their support for general education. Kridel (46), a curriculum specialist, comments on the revival of interest in general education and believes that general education and the use of imagination can give unity and coherence to the overall design of education. Additionally, Kridel emphasizes the idea of "modes of inquiry" as a means of producing highly imaginative teachers (46, p. 149).

Alfred North Whitehead (79), the well-known philosopher, also acknowledges the idea of integrating scientific inquiry elements into general education. However, he perceives the role of "imagination" and the development of an "effective alternative" for the preparation of creative teachers as difficult. Whitehead says,

Imagination is a contagious disease. It cannot be measured by a yard, or weighed by the pound, and then delivered to the students by members of the faculty. It can only be communicated by a faculty whose members themselves wear their learning with imagination (79, p. 145).

One of the objectives of general education, according to the NCATE standards (54), is to promote the positive human values of a multicultural society. To achieve this objective, Gay (28), who has studied curriculum development for many years, is of the opinion that, if teachers are to be fully prepared to meet the challenges of a culturally pluralistic society, they should be exposed to multicultural

education as a component of general education. She states that the objective of such education "is to correct ethnic and racial myths and stereotypes by providing students with accurate information on histories, lives, and cultures of ethnic groups" (28, p. 97).

Souers (69) has conducted studies aimed at increasing multicultural awareness in teacher education programs. She says that cultural pluralism requires that educators be aware of the goals of multicultural education. The Association for Supervision and Curriculum Development's (ASCD) Multicultural Education Commission (4) identifies four essential goals of multicultural education as

- (a) recognizing and prizing diversity;
- (b) developing greater understanding of other cultural patterns;
- (c) respecting individuals of other cultures; and
- (d) developing positive and productive interaction among people and among experiences of diverse groups (4, p. 3).

Writing on the effective management of multicultural education, Bernier (9) states that it must permeate all of society, all of education, and all of teacher education.

#### General Education in Teacher Education in Africa

The need for a general education component in teacher education is felt not only in the United States but also in Africa. It appears that some primary teachers in Africa do not receive an effective preparation program

that includes sufficient general education requirements before they are allowed to proceed into teaching. Over twenty years ago, the Ashby Commission drew attention to this weakness in Nigerian teacher education. The Commission observed that

Programs for Nigerian teachers need more emphasis on general education [for] it was not so much that these below-standard teachers had no professional qualifications--though quite a considerable percentage did lack such a qualification--as that they were insufficiently educated (3, p. 81).

A Nigerian religious leader (57) felt that this weakness had not improved significantly by 1968. He maintained that young teachers need to have "good" general education components in teacher preparation before professional training.

The lectures and speeches of Henry Carr, education secretary to the Church Missionary Society (CMS) in Lagos, Nigeria, were collected and edited by Taiwo (72). In Carr's report to the CMS Annual Diocesan Conference in the early 1960s, he indicated that general education components were necessary in the training programs for primary teachers in order to produce cultivated and highly trained people for their work.

Further support for an improved teacher education curriculum which has the required general education component comes from other African scholars. Kajubi (42) indicates that, in an attempt to improve the curriculum

for teacher education in East Africa (Kenya, Tanzania, and Uganda) during 1971, the objectives for teacher education were redefined, the curriculum for teacher colleges was drastically altered, and new programs emphasized the importance of the general education component in teacher education.

Adekunle (1), a Nigerian scholar and researcher, points out the effects of ineffective pre-service programs for teachers in Nigeria and calls for a teacher education program that would meet the needs of the Nigerian people. He states,

Grade Two Teachers Colleges are still using the curriculum introduced twenty years ago, and now out of print in some parts of the country. But these are some examples of curricula designed when the Mission and the Colonial Office jointly used educational activities in Nigeria to achieve various objectives, most of which are no longer relevant and acceptable in a young nation in quest of modernization. Before the schools could become machinery for advancing the aspiration of the new Nigerians, it is imperative to develop a new teacher training curriculum to produce a new breed of teachers with the appropriate modern pedagogical skills and educational sophistication as well as the right set of attitudes (1, p. 49).

Adekunle further indicates that, in order to achieve the national purpose of education, the curriculum for teacher education should include a broad-based general education component. He advocates that teachers should have a sound academic background with specialization at the post-primary level that is built on a broad academic background.

### Academic Specialization

A second element in a teacher preparation program is academic specialization. Support for the inclusion of academic specialization in teacher education programs comes from scholars, educators, and professional organizations in the United States. For example, the National Commission on Teacher Education and Professional Standards (54), a former committee of the National Education Association, stated that general education, academic specialization, and professional studies will make the teacher an educated person in the fullest sense of the term.

The Texas Commission on Standards for the Teaching Profession (73) requires that all institutions seeking approval for undergraduate level teacher preparation shall provide a teaching specialty curriculum which will include the study of the content to be taught to pupils and supplementary information to provide for perspective and flexibility in teaching. The Commission further requires that

- (a) each area of specialization for which approval is sought is designed for a recognized teaching or support assignment in Texas public schools;
- (b) each program of study includes content, knowledge of media in various formats, and bibliographic tools for the teaching specialty (73, p. 27).

In a study completed by Howey, Yarger, and Joyce (34) the researchers interviewed beginning teachers who graduated from a teacher education program with a strong

emphasis on academic specialization among other program elements. These teachers believed that they had been adequately prepared to begin teaching in their area of specialization.

While specialization contributes to some of the goals of general education, the report New Horizons for the Teaching Profession, edited by Lindsey (48), indicates that academic specialization should be viewed both as specialization in the field as a discipline and as an instructional area. Specialization requires a thorough understanding of the field as a discipline. The report states,

To know a field as a discipline the teacher-to-be and other educators must know not only what it is, but what it is not, for knowing the limitations of a discipline is part of its mastery. This means that its method and approach to reality must be studied more carefully. Its tools, its sources, its modes of operating, its distinctive kinds of evidence, its objectives and conclusions must be studied in detail and with continuous self-consciousness (48, p. 44).

This expressed understanding includes and appears to go beyond what Smith would call a grasp of the "logical structure" of the subject. Smith states,

The intellectual discipline of the teacher lies in his command of the logic of his teaching subject. By this I mean his command of the logical procedures by which facts, concepts, propositions, and arguments are analyzed and evaluated; his command of the logical and symbolic dimensions of explanation and prediction. And I mean his control over the operations and procedures of analysis and evaluation by which judgments--both practical and moral--are examined and justified (67, p. 192).

For teachers in an age of continuing education, it is especially important that they should have the ability to do independent and original thinking in one particular field. Moreover, they should have the tools and guidelines for continued exploration in some areas. The second set of dimensions, therefore, relates to the field as an instructional area.

The members of the task force who presented New Horizons for the Teaching Profession (48) believe that specialization requires understanding the field as an instructional area.

Viewing the field of specialization as an instructional area not only suggests content selection within a field but also offers guidance in the choice of the field of specialization and in the patterns of courses and other experiences. This dimension, of course, is not constant in a world of exploding knowledge and changing educational programs. Teaching fields not only differ among themselves, they differ in themselves in different periods. Although it might have been said quite positively some years ago that geology, astronomy, and Russian were important areas of specialization for the educator, this is not at all clear in the space age (48, p. 45).

In further support of specialization in a broad aspect of a field for elementary and secondary school teachers, members of the National Commission on Teacher Education and Professional Standards said,

In addition to work in general education and professional study, both elementary and secondary school teachers should engage in specialized study in one major field of learning. Such specialization should be thorough enough to enable

each teacher to continue formal study beyond the bachelor's degree. The traditional college major might not be adequate in nature and scope for the prospective teacher. Specialization for either elementary or secondary school teachers may be in a broad area such as the social sciences or in a single field with supporting study in related disciplines (53, p. 12).

### Professional Studies

The professional component of teacher education is the aspect of preparation that makes the teacher different from a non-professional, and it is criticized both from within and without. The authors of the NCATE Standards state,

The professional studies component of each curriculum for prospective teachers includes the study of the content to be taught to pupils, and the supplementary knowledge, from the subject matter of the teaching specialty and from allied fields, that is needed by the teacher for perspective and flexibility in teaching (54, p. 5).

The report New Horizons for the Teaching Profession (48) goes beyond the study of the content to be taught to pupils to the study of the learners, learning, and the meaning and purposes of education. The authors say that professional education, the third aspect of the total program of professional preparation, deals with a study of learners, learning, the school or other educational institution, and the meaning and purposes of education.

Speaking of the learner and the learning process as the concern of the teacher, Hall explains,

The nature of the learner, the structure or the form of the substance learned, the environment



in which the learning takes place, and the purpose to be served by the learning--all these call for the consideration of the appropriateness and proficiency of the principles and methods of teaching (31, p. 22).

The contribution of the National Commission on Teacher Education and Professional Standards to the professional studies component in a teacher education program is worth considering. The Commission not only outlined the content of the professional sequence but also added the approaches to the program. The substance and the approaches, according to the Commission, should include

Human growth, development and learning; the teaching process and its effect on the development of attitudes and skills and mastery of facts and concepts; the purposes of education and the place of the school in the society; the measurement of individual ability and achievement; curriculum and the organization of schools; the application of research findings to educational problems; and the meaning and responsibilities of membership in a profession.

Continuing experimentation is needed to discover effective ways to organize the essential content of professional studies. Courses, seminars, field work, tutorials, and independent study are among the approaches that can be utilized in developing imaginative programs.

Professional study should lead the student beyond the acquiring of facts to an understanding and application of basic principles. The pre-service program should focus on what is essential for successful beginning in the profession (53, p. 13).

Apart from professional groups, scholars and researchers have also demonstrated enormous interest in the content of professional studies. Woodring, a noted critic of teacher education, writes,

All elementary teachers should receive instruction in the teaching of reading. . . . Some introduction to the principles of psychology has been required of nearly all elementary and most high school teachers. Today, in many colleges, this takes the form of a course in educational psychology that includes the study of child growth and development, learning theory, motivation, individual differences, emotional conflict and adjustment, and social psychology. In other colleges, these subjects are taught separately. . . . There is less agreement about the relative values of courses in historical, philosophical, and sociological foundations of education (80, p. 107).

Beggs, a former dean and author of The Education of Teachers, also writes on the content of the professional studies component in teacher education. The content of such professional studies, he suggests, should include

psychological foundation; the role of school in the society; the psychology of human growth; method courses where students learn, among other things, how to plan teaching design, how to observe experienced teachers and analyze what they do, how to motivate students to learn, how to evaluate their progress, and how to organize subject materials into teachable units (8, p. v).

Cropley and Dave (18), authors of Lifelong Education and the Training of Teachers, also discuss the content of professional studies in teacher education. These authors view learning as a lifelong process, something that is necessary throughout a person's lifetime, and they believe that such learning requires a special kind of professional education for the preparation of teachers. They emphasize that the responsibilities of teachers--as well as the kinds of skills, knowledge, and attitudes that they will be

expected to promote in their pupils--will be greatly enhanced by a lifelong professional education curriculum. The aim of the curriculum should be mastery of the process of acquiring knowledge. The type of professional education that Cropley and Dave propose should produce teachers who will be able to recognize individual differences among students, to use diagnostic tests to identify instructional needs of individuals, and to recognize that successful learning is self-supportive because it motivates students to learn (18).

Studies on the difficulty of providing an effective professional education to prospective teachers are reported in the literature. In 1981, Ezewu (23) conducted a study of a curriculum that was designed for training teachers for primary schools. The study was intended to determine the adequacy of the quality of training in terms of the program of studies offered to the teacher trainee in Bendel State, Nigeria, in preparation for a role as primary school teacher. When the content of the training program was evaluated against the general aims and objectives for teacher education in Nigeria and other objectives of primary education, it was found that the Grade Two teacher trainees were not adequately equipped in terms of the professional studies content to discharge their responsibilities effectively in order to realize the objectives

of primary education. The researcher recommends that the professional studies component for teacher education programs should include (1) skill requirement in communication and professional skills, (2) knowledge requirements in subject areas for cognitive and psychomotor development, and (3) attitude and value developments for affective areas.

Another concept involved in providing effective professional education for prospective teachers is described by Goldhammer (29) as "fragmentation in content." Goldhammer indicates that there is a diversity of opinion about who is being served and for what purpose. Who is the primary client--the society, the profession, or the student? The lack of explicitness regarding what the instruction in professional education is for and what these benefits will be ensures a potpourri of educational goals--goals too nebulous to provide direction but vague enough to promote ambiguity and misunderstanding. As a way out of the fragmentation problem, it is suggested that the roles of beneficiaries of instruction are society's needs (ultimate client), school and learner needs (intermediate clients), and the student teacher's needs (immediate client).

### Clinical Experience

Considerable evidence supports the contention that learning to teach involves a clinical experience.

Educational administrators, scholars, and researchers in the field of teacher education fully support this concept. Muro, an administrator and educator, expresses the need for quality in the teaching profession:

Learning to teach is largely a clinical experience. We are trying to give the kids an opportunity to see what teaching is like prior to their student teaching. Students in colleges of education need experience in addition to academics (52, p. 2).

Muro concludes by pointing out that providing more education courses is not as great an aid to students as providing experience, because without classroom experience students have no base upon which to relate education courses.

Conant (16) conducted a study on teacher education that focuses attention on practice teaching. He recommends that the competence of future teachers be tested by practice teaching under state-determined conditions and supervision. The term "clinical experience" comes from Conant's study; it is borrowed from medical education to denote the various kinds of actual teaching experiences developed for pre-service teachers.

The term clinical experience has been adopted by leading teacher educators and scholars. However, Warner, Houston, and Cooper (76) are concerned about the general lack of agreement in teacher education concerning the definition and purposes of clinical experience. In order to understand the concept and use of clinical experience in

other professions and its possible relationship to teacher education, they conducted a literature search on clinical training for physicians, pharmacists, dentists, politicians, and clergymen. They conclude that teacher trainees should engage in actual observation and treatment of clients (the students).

Friedman, Brinlee, and Hays outline observational techniques for teacher trainees:

Learning to identify typical and atypical, physical, intellectual, emotional, and social characteristics of children and youth as these characteristics pertain to learning. Direct and indirect observational techniques are learned as well as the selection, administration, and interpretation of diagnostic instruments. Emphasis is on diagnosis for the purpose of prescribing appropriate instruction (27, p. 107).

Several studies have been conducted on clinical experience. Joyce, Yarger, and Howey (49) surveyed the opinions of educators, lay people, and students about field-based (clinical) experience in teacher education. Their findings support clinical experience as an important element in teacher education. Their findings also indicate that it is widely accepted by educationists, lay people, and students alike and that field-based experiences are necessary and useful components in pre-service teacher preparation programs.

Tabachnick, Popkewitz, and Zeichner (71) declare that some time in the field is better than none, and the more

time spent in this way the better. These researchers arrived at this conclusion after several studies on clinical experience in teacher education.

DeBruin (19) completed a study of field-based experiences for pre-service teacher education. In the study, five first-year American teachers who did their undergraduate practice teaching in British infant schools were asked about their personal experiences in England and their impressions of British infant schools and teacher education institutions. DeBruin studied the taped responses of the teachers, and their recommendations were in full support of field-based experiences for pre-service teacher education programs.

The study by Peters and Moore (58) was designed to compare students' teaching performance using different methods as measured by their student teaching grades. The result of the study shows that there were no statistically significant differences in the performance of students who participated in microteaching and reflective teaching groups.

Since there were no statistically significant differences in the performance of students who used two methods of field (clinical) experience (microteaching and reflective teaching), Crocker's (17) study investigated the effect of different amounts and types of field experiences. In

this study 83 students were divided into three groups. Group one received limited field experience, group two received extended field experience, and group three received field experience with integrated classroom experience. Crocker concludes that, although there were no significant differences in the attitudes of pre-service teachers with different types of field experience, those who had extended field experience integrated with classroom activities showed the greatest positive attitude change. Although not significant, there was a trend toward more positive attitudes toward students and teaching for pre-service teachers who had prior experience with children.

Iannon and Carline have described the goals of early field experience more precisely. They are

1. To help the students examine their perceptions of teaching and their perceptions of themselves in the role of a teacher;
2. To reduce the anxieties of prospective teachers and aid them in selecting or not selecting teaching as a career;
3. To acquaint students with the realities of school setting and thus make an easier transition to student teaching (36, p. 429).

Additional objectives of early field experience, which include developing an understanding of children and how they learn and exposure to specific teaching skills, have enabled researchers to study attitude changes, teaching competencies, and changes in self-concept of student teachers. Results have been promising. Such studies have been completed by Merwin (51) and Scherer (64).



Denton (20) completed a similar research study two years after Merwin's (51) study on early field experience. The result of Denton's study indicates that early field experience might serve to provide a meaningful context for subsequent attainment of teaching techniques and processes, thereby contributing in a substantial way to the preparation of a teacher.

#### Admission of Teacher Candidates

Researchers and educators have studied the problems that surround the admission of teacher candidates for some years. Ellsworth, Krepelka, and Kear observe that school administrators and the general public seem to be increasingly dissatisfied with the professional competencies of prospective teachers.

Common complaints include poor preparation in general, and more especially, lack of competencies in basic skills, such as English and mathematics. These concerns from within and outside the profession suggest that teacher training institutions continue to be faced with the difficulties of screening applicants and selecting only the most promising candidates for the teaching profession (22, p. 21).

Watts (77) contends that too many below-average college students are admitted and eventually graduate. He maintains that the time has come to start rewarding teacher preparatory institutions for quality, not quantity. Favoring selective admission, Watts states that the lack of selective admissions is an extremely serious deficiency

that must be corrected if high quality applicants are to be chosen; even a superb preparatory program cannot make a competent teacher out of an inadequate candidate. Studies by Baughman (6), Heavillin (32), and Jarrett (38) all emphasize the importance of the selective admission of teacher candidates into the program.

Teacher colleges may prefer to select only the very best candidates for teacher education programs, but the regulations governing funding of the institutions place limitations on the selection process. One administrator (52) explains that, in the case of public institutions where funding is contingent on the number of bodies, there is a tendency to admit students who are marginal; public college recruitment officers tend to hunt heads instead of students of high achievement.

Despite the problems caused by funding procedures, Ebel points out the danger of admitting poorly qualified students into teacher education programs.

The admission of poorly qualified students tends to lower the quality of the education provided to all students enrolled in the program. Efforts of the instructor are diffused, and standards of achievement descend to match the lower average capacity of the student (21, p. 22).

Turner (74) made some inquiries into the selection process for candidates into teacher education programs. He notes that the identification of criteria and procedures to be used in selecting applicants for teacher education

is a problem that has received considerable comment and inquiry.

The New Jersey Board of Education (55) recently approved new standards for certification as a way of improving the quality of the product of teacher education programs. The new standards allow formal admission to teacher training programs at the beginning of the junior year only to students who meet rigid requirements. The Board states,

The new policy requires prospective teacher education students to maintain a cumulative grade point average (GPA) of at least 2.5 for the first two years of college. They must achieve acceptable level of proficiency in the use of English language (oral and written) and mathematics, and successfully complete an introductory course in practical experiences (55, p. 7).

At the end of the junior year, each student will be evaluated, and those confirmed as candidates for certification will be assigned to student teaching practice.

In addition to a required cumulative grade point average of 2.5 for teacher education programs, Ellsworth, Krepelka, and Kear (22) suggest the use of tests as a screening device to select qualified applicants into teacher education programs. They are working on a testing program for screening prospective teachers.

Pressure to screen prospective teachers has come from all sides as a result of criticism of teacher colleges.

Lyons, writing for Texas Monthly magazine, claims that teachers cannot teach

because they don't know anything. Teacher education is a fraud. It drives out dedicated people, rewards incompetence, and wastes millions of dollars. Our taxes pay for it all, but our children pay the real price (49, p. 123).

Another criticism of teacher education comes from Hilldrup (33), a former public school administrator. In response to a question about illiterate teachers, Hilldrup blames the teacher colleges that prepare the teachers, the school board members who show insufficient involvement in the day-to-day administration of the school, and parents, the public, and the press who fail to put pressure on school boards and administrators to make schools relevant.

In regard to the use of criteria to screen for admission to teacher education programs, Sinclair and Picogna (66) report on a survey of 43 teacher training institutions that used criteria to screen students for admission to teacher education programs. The survey indicates that the responding schools used (1) a GPA of 2.0 or greater, (2) a personal interview, (3) evidence of good health, (4) a voice and appearance evaluation, (5) completion of a speech course, and (6) a personality inventory.

Although some of the studies in this review are research based, several other non-research-oriented articles by teacher educators discuss the screening of

teacher education students. Van Patten (75) reports on the effectiveness of the first course as a screening device in the selection of prospective teachers; this first course should include "professional experiences" to demonstrate qualities which, when used with all other criteria, would yield better overall selection results. Van Patten further suggests that this first course may serve as a self-selection device in that students essentially eliminate themselves after realizing that their aspirations differ from the goals of the teacher education program.

Frankel and Milgram (26) are teacher educators who have written about the screening of teacher applicants. These educators discuss the possibility of an "educational audition" similar to that which is used in schools of art and music. They offer the following four possibilities for auditions:

1. Observation of the student in a functioning situation, unstructured nursery, or primary class, as a temporary aide to the regular teacher;
2. Observation of the student in a structured situation where, for example, a group of youngsters who had problems or whose behavior needed careful management or supervision could be placed together to play, under the guidance of the applicant;
3. Obtaining the applicant's reaction to a videotape of a school classroom experience; and
4. Personal interview of the applicant (26, p. 310).

There is a strong plea for new guidelines for selecting candidates for teacher education programs. Haberman,

who has studied curriculum and instruction, proposes the following guidelines.

1. Admission to professional education is a professional decision, not a student right.
2. External selection must complement self-selection.
3. Selection is a process, not an event.
4. Selection must assess the potential of candidates to function as continuous learners (30, p. 234).

In Nigeria Nwagu (56) reports that most government commissions on education recommend raising the entry qualifications into teacher training colleges as a crucial element in any plans to improve quality of teaching in the schools. The minimum entry qualification, Nwagu adds, should be a West African School Certificate (high school diploma). The Second National Development Plan for 1970-1974 (24) launched by the Nigerian federal authorities also supports a high admission standard to eliminate unqualified applicants into teacher education.

#### Needs Assessment

Needs assessment is a technique which is also the primary research tool of this study. Educators and researchers have identified two general definitions of need--democratic need and discrepancy need.

Democratic need is considered to be a change desired by a majority or some reference group. This method of identifying need, according to Scriven (65), has been used

in educational settings for some time. Discrepancy need, according to Kaufman (45), is considered to be the difference between the present state of functioning or performance level and the ideal or acceptable level of functioning or performance. In Lenning's view,

Need is a necessity or a desirable condition, state, or situation whether it be an end result that is actuality (met need) or a discrepancy that should be closed between a current or projected actuality and a necessity or highly desirable end result (unmet need)--as judged by a relevant person or group using multiple objective criteria that have been previously agreed upon (47, p. 265).

Educators generally underscore the importance of assessing students' needs before designing a program to close the gap between the current and expected states of affairs. This is the view of Kaufman (45), Lenning (47), and McAleenan and Lenning (50).

There are several ways of identifying needs before prescribing a program to meet identified needs. One way of achieving this level of assessment is suggested by Atwood and Ellis (5). These educators say that the most typical practice relies upon supervisors to list what their workers need, based upon individual viewpoints of what constitutes effective practice among workers.

Another way of identifying needs is to ask the workers, whether in education or in industry, what, for instance, they want to be included in their training program. However, James (37) points out that this method

might lead to responses that are based upon either what is familiar to the workers, current interests, or what each worker may reasonably understand. James further states that "expressions of such desire may or may not represent what the workers really need to overcome" (37, p. 26); most people are aware of their relative effectiveness but do not know what specific skills and knowledge they lack in order to be fully competent.

Kaufman (43) made an important contribution to ways of identifying needs in education. He says that needs may be identified through a needs assessment wherein all discrepancies are identified relative to a given program (e.g., an educational or training program) and priorities are placed on each of the needs relative to one another. This needs assessment procedure will increase the probability of obtaining valid needs and thus relevant problems which will allow the educator to reduce or eliminate the true needs.

Weissberg and Berentsen (78) refer to instances when needs assessment surveys have been employed, such as on college campuses with special groups of students. These researchers used needs assessment surveys to assess the academic, career, and personal needs of undergraduate students at a large public university.

Other studies which used the needs assessment procedure were those of Huba, McNally-Jarchow, and Netusil



(35). The researchers used needs assessment procedure to design educational goals for students in the College of Education at Iowa State University. Finally, Beard, Elmore, and Lange (7) also used needs assessment procedure to develop a comprehensive program in preventive mental health.

An ingredient in a needs assessment survey is outlining priorities among the identified needs. Therefore, to emphasize the use of priorities among the identified needs, Swiegert says,

It will be necessary to set up priorities among the unmet needs. Since no educational system has sufficient resources to solve all its problems simultaneously, an assessment of the needs must provide data leading to the optimally effective and efficient allocation of available resources. The data must not only identify and define the needs, but also provide a measure of the criticality of each (70, p. 345).

Jones (39) suggests another way of identifying and prioritizing needs. He says that the most common way of identifying and prioritizing needs is the survey or group process developed around felt needs. Atwood (5) describes felt need as something regarded as necessary by the person or persons concerned, which may or may not be an educational need, of course. According to both Atwood (5) and Jones (39), felt needs are closely akin to interest; they are conscious desires or surface indicators.

Jones (39), however, concludes that the survey or group interview methods identify needs from among immediate,

expressed concerns by asking respondents to list what they feel is needed using their own viewpoints. The process of surveying groups helps those in responsible positions to assess properly the risks of some decisions and reduce the uncertainty surrounding the information available from other less reliable sources.

Kaiser's (41) study on needs assessment supports the method of surveying the opinions of groups of people on issues that affect education. He confirms that, if representative information is selected properly, the technique can also provide a vehicle for dialogue between the groups involved and the school administration. Jones (39) says that there is much support for surveying the opinions of groups of people on issues affecting education. In Nigeria, although the federal government is responsible for capital and recurrent expenditures on education, the planning and administration of education are the responsibility of the various state ministries of education, the local community, and the school community (which includes the administrators, the students, and the school personnel).

The process of sampling the opinions of others in the decision-making process involving educational programs is as important as the recorded opinion. Borg, who is a noted authority in research designs, suggests survey research as one of the ways of collecting such data. He says,

Survey research typically employs questionnaires and interviews in order to determine the opinions, attitudes, preferences, and perceptions of persons of interest to the researcher. Perhaps the best-known surveys are those carried out by the various public opinion polls (11, p. 130).

Researchers, educators, and scholars believe that there are several methods of identifying educational needs based on the opinions of the people concerned in the decision-making process. Kaufman and Harsh (44) identify two models--the inductive type model and the deductive type model. In the inductive type model, educators and representatives of sub-community groups use the critical-incident technique to specify desirable or undesirable behavior of individuals. These behaviors are compiled, classified into program and behavior expectancies, and compared to existing broad goals with the discrepancies identified and detailed objectives set to reduce these discrepancies. This technique was formulated by Flanagan (25), whose work on the identification of critical factors in human performance during World War II served as a basis for his later work using the critical-incident technique to solve practical problems in health, education, and industry.

Colbert (14) conducted a study that used the critical-incident technique in an effort to gain information about the schooling process, teacher and student behavior in schools, and the impact of teaching strategies

on learner outcome. Findings were used to design a meaningful staff development program.

There are other current applications of the critical-incident technique by researchers and scholars. Jones (39) assessed the continuing education needs of social case-workers; the development of a model by which needs assessment and discrepancy evaluation can be conducted is part of the outcome of Jones's study. As a result of Sauser, Evans, and Champion's (63) study, it was possible to construct a data bank of psychometrically scaled incidents of college classroom teaching behavior that can be used for a variety of purposes. Riley (62) also used the critical-incident technique in response to the need to study realistic materials for use in training in-service and pre-service vocational teachers who had needs in the area of classroom discipline. A program to meet the unmet needs of pre-service teachers was designed as an outcome of the study.

Kaufman and Harsh (44) say that with the deductive type model the researcher identifies and selects extant goals of education and develops criterion measures for these goals. The extent to which these index criteria are currently being met is then determined. Areas of discrepancy are determined based upon performance relative to the desired performance specified in the index. As a

result of this evaluation, detailed objectives are developed to meet the identified needs.

The deductive model was used in 1970 by the state of Colorado (15) to conduct a statewide identification of educational needs. Tests were administered in the areas of mathematics, language arts, music, health, physical education, and science in a statewide assessment of learning. The result of the study showed that there was a definite educational need in the schools.

A survey of one county's educational needs was conducted by Preising (59), who used the deductive model research method. The study was aimed at making changes in school programs and establishing the priorities to be attached to each of the changes. In the study, educational need is defined as the degree of discrepancy between what various groups of people think the school should teach and what they think the schools are teaching. An acceptable program was finally drawn up to meet unmet educational needs of the county.

The deductive model research method is used by Kaiser (41) in his study on the assessment of educational needs. The study involves the administration of questionnaires to a representative sample of seven school community groups--students, teachers, administrators, parents, community members, school board members, and the supportive staff of

one large school district. The questionnaires required two responses for each item and thus allowed the identification of an educational need which is defined as the difference or discrepancy between the respondents' perception of current educational practices (actually exist) and their expectations (should exist). Space was provided for open-ended comments. Some of the outcomes of the study are the identification of the need for revisions of the curriculum in order to meet student needs in a better way, in particular among the identified needs.

#### Summary

Although little research is available that is specifically related to the needs of pre-service teacher education in Nigeria, the literature of other countries repeatedly indicates the need for improved curricula for the training of teachers. Literature has been presented which emphasizes the following points.

1. There is a strong need for the review of current teacher education programs.

2. A new curriculum for the training of teachers should contain general education requirements, professional training, academic specialization, and clinical experiences.

3. Only candidates who possess traits that make up teaching success should be accepted as prospective teachers.

These traits include leadership, personality, intellectual capability, and interest in the profession.

4. The needs of pre-service teacher education can be identified through the critical-incident or the needs assessment techniques.

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## CHAPTER III

### PROCEDURES FOR THE COLLECTION AND ANALYSIS OF DATA

#### Introduction

This chapter contains the procedures employed in this study of the needs of pre-service primary teacher education in Cross River State, Nigeria. The chapter is divided into four major areas: population of the study, development of the questionnaire, collection of the data, and analysis of the data.

The research design for this study uses the survey method. In a study of this nature, for which it is necessary to contact many student teachers, teacher educators, and practicing teachers from a wide area within a short period of time, the survey method seems to offer the greatest possibility for fruitful inquiry.

#### Population of the Study

The population in this study is composed of 34 officials of the Ministry of Education in Cross River State, Nigeria; 44 teacher educators; 105 student teachers; 117 practicing teachers; and 20 citizens. These subjects were selected because they are directly affected by the quality of education that is provided by the government.



The first group, which is composed of officials of the Ministry of Education, includes such key persons as the permanent secretary, subject inspectors, education officers in the various local government areas, and school board members. The second group responding to the questionnaire consists of teacher educators; by definition, teacher educators are persons who teach in Grade Two teacher colleges. The third group of respondents are student teachers; they are in their final years of training to become Grade Two teachers. Practicing Grade Two teachers comprise the fourth group; they teach in the primary schools. This group consists of those respondents who are the products of the teacher education program in Cross River State, Nigeria. The fifth group is composed of citizens, for whom no demographic data were obtained. They were selected to participate in the study because they hold membership in local parent-teacher associations.

#### Development of the Questionnaire

As a first step in gathering the data, a questionnaire was designed by the researcher using as bases published materials on primary education and the goals set by the federal Ministry of Education in Lagos, Nigeria (1). The instrument contains 80 goal statements that are drawn from research abstracts, textbooks on teacher education, and professional journals.

The preliminary form of the questionnaire was revised after consultation with the researcher's doctoral committee. The instrument covers (1) knowledge of the curriculum, (2) classroom management, (3) methodology, and (4) teaching strategies.

The instrument was submitted for review to a jury panel of five members. Criteria established for the selection of the jury panel are (1) background and experience as an educational leader, (2) experience with student teachers, (3) experience as a classroom teacher, and (4) consultant experience in teacher education curricula. These standards were established to ensure a superior jury panel.

The jury panel, which was composed of one woman and four men, was drawn from a group of educators each of whom is experienced in the area of teacher education and recognized as an authority in the field. All are members of the faculty of the College of Education at North Texas State University in Denton, Texas.

A letter explaining the purposes of the study (Appendix D) was given to each jury member, and each signed the letter of acceptance to serve as a juror to validate the research instrument. The jurors were asked to rate each item in the instrument using a scale in which 1 = appropriate, 2 = inappropriate, and 3 = I don't know.

They were also asked to clarify the wording and interpretation of each goal statement, to recommend additional goal statements appropriate to the study, and to suggest modifications that would make the questionnaire more effective.

Following the evaluation by the jury panel, several changes were made. Editorial changes in some items were made, and the section on the interview of the citizens was rewritten to make it less technical.

A pilot study was conducted that involved sixteen graduate students from Nigeria who are currently enrolled at North Texas State University. The students who participated in the pilot study had either taught or worked in the Nigerian Ministry of Education. The pilot study was conducted (1) to determine how long it would take the respondents to complete the initial document, (2) to identify items that the respondents believed to be ambiguous, and (3) to secure their overall reactions to the instrument and their recommendations.

The preliminary questionnaire was used in the pilot study. The following recommendations were made by the pilot study participants.

1. Items 5 through 9 should be reworded to make them easier for student teachers in Nigeria to understand.

2. Knowledge of the history of the British Empire is unnecessary since Nigeria is no longer under British rule.

3. The goal statements to be used in interviewing the citizens are too technical.

4. The design of the questionnaire should be retained because it touches on all phases of teacher education. The final questionnaire was constructed based on the recommendations of the jury panel and the participants in the pilot study. Some items were deleted and others were modified.

A personal data sheet for each respondent was constructed and a five-point rating scale was developed which allows a range of intensity of expression. The rating scale ranges from 1 = of no importance to 5 = of extremely high importance. It is arbitrarily assumed that there is equal distance between the points on the five-point scale. Separate columns were provided in the questionnaire to indicate the degree of importance that is currently attached to the goal statements and the degree of importance that should be attached to the goal statements (Appendix A).

#### Collection of the Data

Data were personally collected by the researcher in Nigeria. The instrument was also presented to a jury of three Nigerian teacher education curriculum specialists. They were asked to rate each item on the instrument as 1 = appropriate, 2 = inappropriate, or 3 = I don't know. All items were rated appropriate except item 69, which

was rated inappropriate because Nigeria is no longer under British rule. It was explained to the jurors that this particular statement was included for the purpose of obtaining ratings that would serve as a means of estimating the reliability of the responses of the subjects. The curriculum specialists finally commended the instrument as being exhaustive, yet clear and easy to complete.

The curriculum specialists suggested that the researcher visit all the institutions to be used in the study in order to secure a good return rate. Following the suggestion of the curriculum specialists, all of the educational institutions used in the study were visited on three occasions.

Using a list of final-year students with a systematic sampling technique (random choice by tenth interval), 25 student teachers were selected from each of the six teacher colleges that were used in the study. Twenty-five student teachers were needed from each of the six teacher colleges, each of which enrolled approximately 200 final-year students. Using the same statistical selection procedure (random choice by tenth interval), 50 teacher educators were selected from all responding teacher colleges, 140 practicing teachers were selected from the seven responding large primary schools, 40 officials were selected from the Ministry of Education, and 20 citizens were selected

from a list of members of parent-teacher associations in the selected primary schools.

The brief interviews of the citizens entailed asking them to respond verbally on a five-point scale to ten goal statements (see Appendix C for interview form). The completed instruments were collected during a period of from two to three weeks following initial distribution.

#### Procedure for Analysis of the Data

The completed questionnaire was sent to the computing center at North Texas State University for keypunching. Participants' perceptions of current educational practices were compared with their expectations, and discrepancies or need indices were determined for all groups using the Statistical Package for the Social Sciences (2). This was done by comparing the means for is and should be responses. The significant differences indicate a need; need is defined as a discrepancy or difference between what actually exists and what should exist. The larger the discrepancy, the greater the need. In order to establish needs priorities, a need index was computed by dividing the mean for each item of is by the mean for each item of should be. The needs indices were then ranked for each of the groups. Analyses of the data are reported in Chapter IV.

### Summary

This chapter presents a description of the procedures used in the study. The research procedure, the description of the population, the development of the questionnaire, and the collection and the analysis of data have each been identified and explained in detailed fashion.

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## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

This chapter contains the presentation and analysis of the data collected in answer to the research questions posed concerning the needs of pre-service primary teacher education in Cross River State, Nigeria. Data were collected from four professional groups of respondents. The fifth responding group, the citizens, responded orally to a limited number of items taken from the instrument.

Responses were secured concerning these needs, and the needs were then classified and ranked based on the responses. In addition, these needs were incorporated into a plan for improving primary teacher education in Cross River State, Nigeria.

#### Respondents to the Study

Three hundred eighty professional persons were randomly selected to participate in the study. Twenty citizens, who were also randomly selected, were interviewed. Table I contains the number of professional subjects in each group who received the research instrument, the number of returns from each group, and the percentage of each group responding.

TABLE I  
NUMBER AND PERCENTAGE OF RESPONSES  
FROM THE FOUR PROFESSIONAL GROUPS

Group	Number Receiving Questionnaire	Number Returned	Percentage Returned
Officials of the Ministry of Edu- cation	40	34	85
Teacher educators	50	44	88
Practicing teachers	140	117	84
Student teachers	150	105	70
Total	380	300	79

As reported in Table I, the lowest percentage (70 per cent) of returns was from the student teacher group. The greatest response (88 per cent) was from the teacher educators.

Information was collected from the four professional groups about age, major area of study, level of education, academic or administrative rank, years of teaching or administrative experience, country or institution where respondents obtained qualifications, and country of citizenship. Table II presents these data.

TABLE II  
SEX, AGE, QUALIFICATIONS, AND EXPERIENCE OF PROFESSIONAL GROUPS

Characteristic	Officials of the Ministry of Education		Teacher Educators		Practicing Teachers		Student Teachers	
	N	%	N	%	N	%	N	%
Sex*								
Male	18	52.94	21	47.70	63	53.84	52	49.53
Female	16	47.06	23	52.30	54	46.16	53	50.47
Age							105	100.00
20-29	19	55.88	31	70.50	110	94.02	...	...
30-49	15	44.06	13	29.50	7	5.98	...	...
50-65							...	...
Qualifications								
Teachers' Grade Two	2	5.90	2	4.50	117	100.00	...	...
NCE°	2	5.90	8	18.20	...	...	...	...
Bachelor's degree	20	58.80	22	50.00	...	...	...	...
Master's degree	8	23.50	12	27.30	...	...	...	...
Doctoral degree	2	5.90	...	...	...	...	...	...
Years of Teaching or Administrative Ex- perience								
5-10	23	67.60	33	75.00	76	64.96	...	...
11-15	9	26.50	8	18.20	35	29.91	...	...
16 and over	2	5.90	3	6.80	6	5.13	...	...

\*Total males = 154; total females = 146.

°NCE = National Certificate of Education.

The data in Table II show that, of a total of 300 subjects who returned the instrument (not including the citizen group, for which demographic data were not available), 154 were males and 146 were females. The data also show that about the same number of male and female officials of the Ministry of Education responded and that they fall equally into two age groups. More hold college degrees than do not, and the largest number of Ministry officials have five to ten years of administrative experience.

Forty-four teacher educators responded, and 34 have college degrees. Ten of the teacher educators hold only the National Certificate of Education, earned in a three-year teachers college (a non-degree awarding institution), or the Teachers' Grade Two Certificate. The data also indicate that 31 of the 44 respondents are between 30 and 49 years of age, while 13 are near retirement age. The majority of the respondents reporting having five to ten years of teaching experience.

One hundred seventeen practicing teachers returned the questionnaire. The return rate for males is higher than that for females. The data also indicate that the largest number of the practicing teachers are between 30 and 49 years of age and do not hold a college degree.

Of the 105 student teachers used in the study, the respondents are divided equally by sex, and they all fall

within the same age group (20-29). The data show that the respondents possessed no professional qualifications prior to admission to teachers colleges.

Twenty citizens who were randomly selected and interviewed responded to ten questions taken from the research instrument. The questions were modified to make them less technical for the citizen group.

#### Overview of Responses

Responses to an eighty-item instrument containing possible goals were obtained from four professional groups. These groups were officials of the Ministry of Education, teacher educators, practicing teachers, and student teachers.

The responses ranged from "of no importance" to "of extremely high importance" for is (present) goals and for goals which should be (ideal) a part of the preparation program. Responses from a small group of citizens were obtained in a different manner and used to supplement the responses of the four professional groups.

The goal statements were grouped into five broad categories for purposes of analysis. These are I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

A needs index was determined for each goal statement and for each professional group of respondents by dividing the mean score for is (present) by the mean score for should be (ideal). The quotients were then rank ordered, with smaller quotients indicating greater need.

#### Responses of All Four Professional Groups

The combined judgment of the four professional groups of respondents is based upon the result of the needs index. The goals ranked from highest to lowest by the four professional groups of respondents, based on the ranking by needs index, are summarized in Appendix G.

The goals in the upper three quartiles as determined by this needs index were arbitrarily selected as the most important goals to be met in a program of pre-service primary teacher education. The upper three quartiles appear to contain the goals most likely to be achieved in a teacher education program.

In order to present data related to research question one, which concerns the needs as expressed by all four professional groups, the data are presented in two ways. The needs index for each goal is found in Appendix H.

Further information about the responses of all professionals is given in Table III. Table III contains the 20 most important goals and the 10 least important goals as perceived by the professional respondents, based on the

TABLE III

TWENTY MOST IMPORTANT AND TEN LEAST IMPORTANT  
GOALS\* RANKED BY ALL FOUR GROUPS OF PROFES-  
SIONAL RESPONDENTS

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
			<u>Most Important</u>	
1	21	III	Set up learning centers.	0.494
2	6	II	Prescribe remediation.	0.495
3	45	IV	Be a facilitator of learning.	0.511
4	33	III	Teach study skills.	0.517
5.5	77	IV	Read professional literature.	0.521
5.5	39	III	Teach problem-solving techniques.	0.521
6	15	III	Teach reading.	0.523
7	51	III	Have regular conferences with students.	0.524
8	48	III	Present questions and problems at students' intellectual level.	0.531
9	42	III	Provide effective learning climate in the classroom.	0.533
10	12	III	Teach social science.	0.534
11	80	V	Know the purposes of education.	0.536
12	53	III	Observe, record, and interpret child behavior.	0.538
13	18	III	Teach spelling.	0.539
14	35	III	Teach the metric system.	0.540
15	19	III	Teach music.	0.542
16	60	IV	Demonstrate model behavior.	0.543
17.5	68	V	Possess a body of knowledge in various disciplines.	0.544
17.5	3	II	Diagnose student interest.	0.544
17.5	36	III	Provide citizenship education.	0.544
			<u>Least Important</u>	
52	69	I	Know the history of the British Empire.	0.826
51	1	II	Set and share objectives with students.	0.686
50	49	III	Have testing skills.	0.609
49	31	III	Encourage student self-evaluation.	0.602

TABLE III--Continued

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
48	7	III	Determine readability level of books.	0.598
47	34	I	Show students relationship between disciplines.	0.595
46	28	III	Teach students to use free time in intellectual and cultural activities.	0.592
45.5	29	III	Help students to acquire faith in man's ability to make rational decisions.	0.591
45.5	22	III	Design scope and sequence.	0.591
44	46	IV	Foster democratic procedures for making classroom management decisions.	0.585

\*Based on needs index computed for all four professional groups.

°Broad categories: I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

ranking by the needs index. In addition, the broad category of each of these goals is shown. Areas of high priority are thus revealed.

Since it may not be possible to solve all the problems of pre-service primary teacher education at once, it seems necessary to consider the 20 highest-ranked goals as areas of high priority. The 10 lowest-ranked goals indicate areas that may not need to be considered in the development



of a model teacher preparation program. Table III presents these data.

On the basis of the broad categories of the needs of teacher education established to assist in this study, the 20 highest-ranked goals by all four professional groups of respondents fall into four of the five broad categories. Thirteen of the goals in the top 20, as selected by all four professional groups of respondents, are teaching strategies, only two goals are intellectual characteristics, two others are diagnosing, and three are personal characteristics. The respondents, therefore, seem to stress that there is need for developing teaching strategies and evaluation techniques.

#### Responses of Individual Professional Groups

The responses of each of the four professional groups are presented by group in Tables IV through VII. Responses of officials of the Ministry of Education, teacher educators, practicing teachers, and student teachers are presented separately in order to show the concerns of each professional group. Twenty selected citizens responded orally to ten goals taken from the research instrument. These ten goals were modified to make them less technical for the citizen group; therefore, the responses from this group are not comparable and are used to complement the findings of the four professional groups of respondents.

### Officials of the Ministry of Education

Thirty-four officials of the Ministry of Education participated in the study. The 20 goals ranked highest by these officials using the needs index are presented in Table IV. The needs index for all goals for the officials of the Ministry of Education is found in Appendix I.

Table IV contains summary information relative to the highest and lowest goals ranked by the officials of the Ministry of Education. This group's first goal is that a teacher should know the purposes of education (Goal 80). The data in the table also show the broad categories into which the identified goals are classified and the needs index for each goal.

The data in Table IV indicate that 12 of the top 20 goals ranked highest by the officials of the Ministry of Education are teaching strategies, 3 are diagnosing and goal-setting, 2 are personal characteristics, 2 are intellectual characteristics, and 1 is general education. Sixteen of the 20 most important goals selected by the Officials of the Ministry of Education in Table IV are the same as those in the 20 most important goals selected by all four professional groups of respondents (Table III). They are that a teacher should

- Know the purposes of education (Goal 80);
- Teach study skills (Goal 33);
- Prescribe remediation based on diagnosis of child's learning problem (Goal 6);

TABLE IV

TWENTY MOST IMPORTANT AND TEN LEAST IMPORTANT  
GOALS\* RANKED BY OFFICIALS OF THE MINISTRY OF  
EDUCATION

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
1	80	V	<u>Most Important</u> Know the purposes of education.	0.409
2	6	II	Prescribe remediation.	0.417
3	45	IV	Be a facilitator of learning.	0.421
4	21	III	Set up learning centers.	0.427
5	51	III	Have regular conferences with students.	0.429
6	39	III	Teach problem-solving techniques.	0.432
7	9	II	Identify causes of undesirable student behavior.	0.443
8	33	III	Teach study skills.	0.453
9	48	III	Present questions and problems at students' intellectual level.	0.455
10	12	III	Teach social science.	0.458
11	15	III	Teach reading.	0.462
12	27	III	Provide a classroom environment in which a variety of individual and group experiences can occur.	0.464
13	77	IV	Read professional literature.	0.465
14	53	III	Observe, record, and interpret child behavior.	0.471
15	36	III	Provide citizenship education	0.475
16	71	I	Have a sound background in general education.	0.479
17	68	V	Possess a body of knowledge.	0.480
18	3	II	Diagnose students' interest.	0.486
19.5	41	III	Provide students with basic tools for further education.	0.488
19.5	42	III	Maintain an atmosphere that is conducive to effective learning in the classroom.	0.488

TABLE IV--Continued

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
66	59	I	<u>Least Important</u> Know the history of the British Empire.	1.145
65	1	III	Share objectives with students.	0.689
64	10	III	Ask questions which stimulate thinking.	0.649
63	28	IV	Help students to spend their free time in intellectual and cultural activities.	0.627
62	46	III	Foster democratic procedures for making classroom management decisions.	0.620
61	34	III	Show students relationship between disciplines.	0.619
60	37	IV	Have adequate knowledge of the society.	0.617
59	40	III	Help students to communicate effectively.	0.615
58	4	II	Diagnose students to discover strengths and weaknesses.	0.613
57	7	III	Determine readability level of books.	0.611

\*Based on needs index computed for student teachers.

°Broad categories: I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

Set up learning centers (Goal 21);  
 Be a facilitator of learning (Goal 45);  
 Teach problem-solving techniques (Goal 39);  
 Have regular conferences with students (Goal 51);  
 Present questions and problems at students' intellectual level (Goal 48);  
 Teach social science (Goal 12);  
 Teach reading (Goal 15);  
 Read professional literature (Goal 77);

Observe, record, and interpret child behavior (Goal 53);  
 Provide citizenship education to students (Goal 36);  
 Possess a body of knowledge (Goal 68);  
 Provide learning climate in the classroom (Goal 42);  
 and  
 Diagnose students' interest (Goal 3).

Six of the 10 goals ranked lowest by officials of the Ministry of Education in Table IV are the same as those ranked lowest by all four professional groups of respondents (Table III). These goals are that a teacher should

Know the history of the British Empire (Goal 69);  
 Set and share objectives with students (Goal 1);  
 Help the students to spend their free time in intellectual and cultural activities (Goal 28);  
 Foster democratic procedures for making classroom management decisions (Goal 46);  
 Show students the relationship between disciplines (Goal 34); and  
 Determine readability level of books (Goal 7).

Four goals are not the same as those in the 20 most important goals selected by all four professional groups of respondents (Table III). These goals are those which require a teacher to

Identify causes of undesirable student behavior (Goal 9);  
 Provide a classroom environment in which a variety of individual and group experiences can occur (Goal 27);  
 Have a sound background in general education (Goal 71); and  
 Provide students with basic tools for further educational advancement (Goal 41).

#### Teacher Educators

Forty-four teacher educators participated in the study. The 20 goals ranked highest by the needs index

and the 10 goals ranked lowest by the needs index by these teacher educators are presented in Table V. The complete needs index for all goals for teacher educators is found in Appendix J.

An examination of Table V reveals that 11 of the top 20 goals ranked highest by teacher educators are teaching strategies, 1 is diagnosing, 6 are personal characteristics, and 2 are intellectual characteristics. No goal is in general education. Thirteen of the top 20 goals identified by teacher educators in Table V are the same as those in the top 20 goals selected by all four professional groups of respondents (Table III). They are that a teacher should

- Set up learning centers (Goal 21);
- Prescribe remediation based on diagnosis of child's learning problems (Goal 6);
- Teach reading (Goal 15);
- Demonstrate model behavior (Goal 60);
- Teach study skills (Goal 33);
- Teach problem-solving techniques (Goal 39);
- Teach spelling (Goal 18);
- Present questions and problems at students' intellectual level (Goal 48);
- Know the purposes of education (Goal 80);
- Teach music (Goal 19);
- Read professional literature (Goal 77);
- Have regular conferences with students (Goal 51); and
- Be a facilitator of learning (Goal 45).

Five of the goals are the same as those ranked lowest by all four professional groups of respondents (Table III). These goals are that a teacher should

- Know the history of the British Empire (Goal 69);
- Have testing skills (Goal 49);

TABLE V  
 TWENTY MOST IMPORTANT AND TEN LEAST IMPORTANT  
 GOALS\* RANKED BY TEACHER EDUCATORS

Rank	Goal	Broad Category <sup>a</sup>	Short Title of Goal	Needs Index
<u>Most Important</u>				
1	21	III	Set up learning centers.	0.492
2	15	III	Teach reading.	0.505
3	60	IV	Demonstrate model behavior.	0.517
4	33	III	Teach study skills.	0.529
5	6	II	Prescribe remediation.	0.530
6	63	IV	Adhere to the codes of ethics of the teaching profession.	0.553
7.5	39	III	Teach problem-solving techniques.	0.559
7.5	18	III	Teach spelling.	0.559
8.5	48	III	Present questions and problems at students' intellectual level.	0.561
8.5	80	V	Know the purposes of education.	0.561
9	19	III	Teach music.	0.566
10	77	IV	Read professional literature.	0.569
11	54	III	Have knowledge of child growth and development.	0.576
12.5	26	III	Provide question and answer time.	0.577
12.5	38	III	Select and use audiovisual aids.	0.577
13.5	51	III	Have regular conferences with students.	0.581
13.5	45	IV	Be a facilitator of learning.	0.581
14	61	IV	Provide a school environment that is "success" rather than "failure" oriented.	0.583
15.5	64	IV	Make school a joyous place.	0.584
15.5	76	V	Have intellectual and professional background.	0.584
<u>Least Important</u>				
60	69	I	Know the history of the British Empire.	1.060
59	30	III	Help students acquire moral and spiritual values.	0.767
58	49	III	Have testing skills.	0.682

TABLE V--Continued

Rank	Goal	Broad Category <sup>o</sup>	Short Title of Goal	Needs Index
57	7	III	Determine readability level of books.	0.661
56.5	72	V	Understand and use the English language.	0.659
56.5	1	III	Share objectives with students	0.659
55	29	III	Help students to acquire faith in man's ability to make rational decisions.	0.654
54	16	III	Teach writing.	0.647
53	50	III	Use test results to evaluate student progress.	0.646
52	11	III	Teach mathematics.	0.644

\*Based on needs index computed for teacher educators.

<sup>o</sup>Broad categories: I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

Determine readability level of books (Goal 7);  
Set and share objectives with students (Goal 1); and  
Help students acquire faith in man's ability to  
make rational decisions (Goal 29).

The 7 goals which are not among the top 20 selections  
by all four professional groups of respondents are those  
which require a teacher to

Adhere to the codes of ethics of the teaching profession (Goal 63);  
Have knowledge of child growth and development (Goal 54);  
Provide question and answer time each day (Goal 26);  
Select and use audio and visual aids (Goal 38);  
Provide a school environment that is "success" rather than "failure" oriented (Goal 61);



Make school a joyous place (Goal 64); and  
Have intellectual and professional background (Goal 76).

Five goals are not the same as those ranked lowest by all four professional groups of respondents (Table III).

These goals are that a teacher should

Help students acquire moral and spiritual values (Goal 30);  
Understand and use the English language effectively (Goal 72);  
Teach writing (Goal 16);  
Use test results to evaluate students' progress (Goal 50); and  
Teach mathematics (Goal 11).

### Practicing Teachers

One hundred seventeen practicing teachers responded in the study. The 20 goals ranked highest by the needs index and the 10 goals ranked lowest by the needs index by practicing teachers are reported in Table VI. The complete needs index for all goals for practicing teachers is presented in Appendix K.

An examination of the data in Table VI reveals that 13 of the 20 goals ranked highest by practicing teachers are teaching strategies, 4 are diagnosing and goal-setting, and 2 are personal characteristics. There are no goals in general education and teachers' intellectual characteristics. Ten of the 20 goals ranked highest by practicing teachers in Table VI are the same as those ranked highest by all four professional groups of respondents (Table III). These goals are that a teacher should

TABLE VI

TWENTY MOST IMPORTANT AND TEN LEAST IMPORTANT  
GOALS\* RANKED BY PRACTICING TEACHERS

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
			<u>Most Important</u>	
1	30	III	Help students acquire moral and spiritual values.	0.541
2	19	III	Teach music.	0.544
3	60	IV	Demonstrate model behavior.	0.554
4	39	III	Teach problem-solving techniques.	0.556
5	9	II	Identify causes of undesirable student behavior.	0.558
6	3	II	Diagnose students' interest.	0.562
7	20	III	Teach physical education.	0.564
8	36	III	Provide citizenship education.	0.568
9.5	44	IV	Note individual differences among children.	0.570
9.5	51	III	Have regular conferences with students.	0.570
10	5	II	Utilize diagnostic procedures.	0.575
11	4	II	Diagnose students to discover strengths and weaknesses.	0.576
12.5	35	III	Teach the metric system.	0.577
12.5	38	III	Select and use audiovisual aids.	0.577
13	41	III	Provide students with basic tools for further education.	0.579
14	58	IV	Serve as counselor.	0.581
15	42	III	Maintain an atmosphere that is conducive to effective learning.	0.582
16	55	III	Provide information related to students' progress or lack of it.	0.583
17	15	III	Teach reading.	0.584
18	48	III	Present questions and problems at students' intellectual level.	0.585
			<u>Least Important</u>	
52	1	III	Share objectives with students.	0.654
51	66	V	Know theories of learning.	0.631

TABLE VI--Continued

Rank	Goal	Broad Category <sup>o</sup>	Short Title of Goal	Needs Index
50	75	III	Care for the psychological needs of students.	0.629
49	72	V	Understand and use the English language effectively.	0.628
48	77	IV	Read professional literature.	0.627
47	74	III	Stress language development.	0.626
46	17	III	Teach arts and crafts.	0.624
45.5	2	III	Divide teaching units into daily lesson plans.	0.623
45.5	73	V	Know the effect of culture on language.	0.623
44	18	III	Teach spelling.	0.621

\*Based on needs index computed for practicing teachers.

<sup>o</sup>Broad categories: I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

Teach music (Goal 19);  
 Teach problem-solving techniques (Goal 39);  
 Provide citizenship education to students (Goal 36);  
 Have regular personal conferences with students (Goal 51);  
 Teach the metric system (Goal 35);  
 Maintain an atmosphere that is conducive to effective learning in the classroom (Goal 42);  
 Teach reading (Goal 15);  
 Present questions and problems at students' intellectual level (Goal 48);  
 Demonstrate model behavior (Goal 60); and  
 Diagnose students' interest (Goal 3).

Ten goals are not the same as the 20 highest-ranked goals by all four professional groups of respondents (Table III). These goals are that a teacher should

Help students acquire moral and spiritual values (Goal 30);  
 Identify causes of undesirable student behavior (Goal 9);  
 Teach physical education (Goal 20);  
 Note individual differences among children (Goal 44);  
 Utilize diagnostic procedures (Goal 5);  
 Diagnose students to discover strengths and weaknesses (Goal 4);  
 Select and use audio and visual aids (Goal 38);  
 Provide students with basic tools for further educational advancement (Goal 41);  
 Serve as counselor (Goal 58); and  
 Provide information related to students' progress or lack of it (Goal 55).

Nine goals ranked lowest are not the same as those ranked lowest by all four professional groups of respondents (Table III). These goals are those which require a teacher to

Know the theories of learning (Goal 66);  
 Care for the psychological needs of students (Goal 75);  
 Understand and use the English language effectively (Goal 72);  
 Read professional literature (Goal 77);  
 Stress language development in all instructional activities (Goal 74);  
 Teach arts and crafts (Goal 17);  
 Divide teaching units into daily lesson plans (Goal 2);  
 Know the effect of culture on language (Goal 73); and  
 Teach spelling (Goal 18).

### Student Teachers

One hundred five student teachers responded in the study. The 20 goals ranked highest by the needs index and the 10 goals ranked lowest by the needs index by student teachers are shown in Table VII. The complete needs index for all goals for student teachers is presented in Appendix L.

TABLE VII

TWENTY MOST IMPORTANT AND TEN LEAST IMPORTANT  
GOALS\* RANKED BY STUDENT TEACHERS

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
			<u>Most Important</u>	
1	77	V	Read professional literature.	0.425
2	26	III	Provide question and answer time.	0.434
3	6	II	Prescribe remediation.	0.441
4	10	III	Ask questions which stimulate thinking.	0.443
5	5	II	Utilize diagnostic procedures.	0.447
6	42	III	Provide effective learning climate.	0.455
7.5	43	III	Develop manipulative skills.	0.457
7.5	53	III	Observe, record, and interpret child behavior.	0.457
8	58	IV	Serve as counselor.	0.461
9	76	V	Have intellectual and professional background.	0.466
10	4	II	Diagnose students to discover strengths and weaknesses.	0.467
11.5	21	III	Set up learning centers.	0.470
11.5	23	III	Begin instruction at students' maturational level.	0.470
11.5	25	III	Provide classroom atmosphere that permits free questioning.	0.470
12	75	V	Know students' psychological needs.	0.471
13	32	III	Plan a personalized program of instruction.	0.474
14.5	40	III	Help students to communicate.	0.477
14.5	54	III	Have knowledge of child growth and development.	0.477
15	18	III	Teach spelling.	0.479
16.5	35	III	Teach the metric system.	0.480
			<u>Least Important</u>	
48	69	I	Know the history of the British Empire.	0.844

TABLE VII--Continued

Rank	Goal	Broad Category°	Short Title of Goal	Needs Index
47	1	III	Share objectives with students.	0.756
46.5	60	IV	Demonstrate model behavior.	0.593
46.5	31	III	Help children acquire respect for the dignity of labor.	0.593
45	80	V	Know the purposes of education.	0.571
44.5	62	III	Use effective reinforcement procedure.	0.557
44.5	74	III	Stress language development.	0.557
43	51	III	Teach reading.	0.546
42	34	III	Show students relationship between disciplines.	0.545
41	70	IV	Protect the right of students and teachers to discuss controversial ideas.	0.541

\*Based on needs index computed for Ministry officials.

°Broad categories: I--general education requirements, II--teacher behavior (diagnosing and goal-setting), III--teacher functions (teaching strategies), IV--teacher personal characteristics, and V--teacher intellectual characteristics.

Table VII contains summary information relative to the highest and lowest goals ranked by student teachers. This group's first goal is that a teacher should keep informed of current trends and practices in the teaching field by reading professional literature (Goal 77). The data in the table also show the broad categories into which the identified goals are classified and the needs index for each goal.

Only 7 of the 20 goals ranked highest by student teachers are also ranked highest by all four professional groups of respondents (Table III). These goals relate to teaching strategies and evaluation. No goals were selected from the broad area of general education. The 7 goals ranked highly by student teachers and by all four professional groups of respondents are that a teacher should

- Set up learning centers (Goal 21);
- Prescribe remediation based on diagnosis of child's learning problems (Goal 6);
- Read professional literature (Goal 77);
- Provide a learning climate in the classroom (Goal 42);
- Teach the metric system (Goal 35);
- Teach spelling (Goal 18); and
- Record and interpret child behavior (Goal 53).

Only 4 goals ranked lowest by student teachers in Table VII are the same as those ranked lowest by all four professional groups of respondents (Table III). These goals are that a teacher should

- Know the history of the British Empire (Goal 69);
- Set and share objectives with students (Goal 1);
- Help children acquire respect for the dignity of labor (Goal 31); and
- Show students the relationship between disciplines (Goal 34).

The 13 goals that are not the same as those ranked highest by all four professional groups of respondents in Table III are those which require a teacher to

- Begin instruction at students' intellectual level (Goal 23);
- Ask questions which stimulate thinking (Goal 10);
- Provide question and answer time each day (Goal 26);
- Utilize diagnostic procedures (Goal 5);
- Develop manipulative skills (Goal 43);

Serve as a counselor (Goal 58);  
 Have intellectual and professional background  
 (Goal 76);  
 Diagnose students to discover strengths and weak-  
 nesses (Goal 4);  
 Provide a classroom atmosphere that permits free  
 questioning (Goal 25);  
 Know students' psychological needs (Goal 75);  
 Plan a personalized program of instruction (Goal 32);  
 Help students to communicate effectively (Goal 40);  
 and  
 Have knowledge of child growth and development  
 (Goal 54).

The 6 goals which are not among the 10 goals ranked lowest by all four professional groups of respondents are that a teacher should

Demonstrate model behavior (Goal 60);  
 Know the purposes of education (Goal 80);  
 Use effective reinforcement procedure (Goal 62);  
 Stress language development (Goal 74);  
 Teach reading (Goal 15); and  
 Protect the right of students and teachers to dis-  
 cuss controversial ideas in the classroom (Goal 70).

#### Comparison of Highest and Lowest Rankings of the Individual Professional Groups

Table VIII presents the comparison of the 20 highest and the 10 lowest goals ranked by the four professional groups of respondents. The ranking of each respondent group is shown in relation to the ranking by all four professional groups. Individual group differences were noted in the discussion of previous tables.

The data in Table VIII reveal the commonality or the lack of it among the goals in the top 20 selections by each professional group. A close study of the data



TABLE VIII  
COMPARISON OF HIGHEST AND LOWEST RANKINGS BY  
ALL FOUR PROFESSIONAL GROUPS

Rank	All Four Groups	Ministry of Education Officials	Teacher Educators	Practicing Teachers	Student Teachers
<u>Highest</u>					
1	21	80	21	30	77
2	6	6	15	19	26
3	45	45	60	60	6
4	33	21	33	39	10
5	77	51	6	9	5
6	39	39	63	3	42
7	15	9	39	20	43
8	51	33	18	36	53
9	48	48	48	44	58
10	42	12	80	51	76
11	12	15	19	5	4
12	80	27	77	4	21
13	53	77	54	35	23
14	18	53	26	38	25
15	35	36	38	41	75
16	19	71	51	58	32
17	60	68	45	42	40
18	68	3	61	55	54
19	3	41	64	15	18
20	36	42	76	48	35
<u>Lowest</u>					
80	69	69	69	1	69
79	1	1	30	66	1
78	49	10	49	75	60
77	31	28	7	72	31
76	7	46	72	77	80
75	34	34	1	74	62
74	28	37	29	17	74
73	29	40	16	2	15
72	22	4	50	73	34
71	46	7	11	18	70

shows that none of the goals was selected by all four professional groups. Some of the goals were selected by three of the groups, some by two of the groups, and some by only one professional group. The goals rated in the top 20 by three professional groups are that a teacher should

Set up learning centers (Goal 21);  
 Prescribe remediation based on diagnosis of child's learning problems (Goal 6);  
 Read professional literature (Goal 77);  
 Teach problem-solving techniques (Goal 39);  
 Teach reading (Goal 15);  
 Have regular conferences with students (Goal 51);  
 Present questions and problems at students' intellectual level (Goal 48); and  
 Provide effective learning climate in the classroom (Goal 42).

Ten of the goals rated in the top 20 were selected by two groups. These goals are that a teacher should

Be a facilitator of learning (Goal 45);  
 Teach study skills (Goal 33);  
 Know the purposes of education (Goal 80);  
 Observe, record, and interpret child behavior (Goal 53);  
 Teach spelling (Goal 18);  
 Teach the metric system (Goal 35);  
 Teach music (Goal 19);  
 Demonstrate model behavior (Goal 60);  
 Diagnose students' interest (Goal 3); and  
 Provide citizenship education to students (Goal 36).

Two of the goals rated in the top 20 were selected by only one professional group. These goals are that a teacher should

Teach social science (Goal 12) and  
 Possess a body of knowledge in various disciplines (Goal 68).

### Agreement and Disagreement of Professional Groups on Goals

A further analysis of the responses of the four professional groups was conducted to discover the significant differences between groups. The 20 most important goals identified by the total group needs index and the 10 least important goals identified in the same manner were analyzed.

The mean scores of the separate responses to is (present) and should be (ideal) goals by each professional group were used in the analysis. In order to compare these group means, an inferential statistical procedure was computed. The ANOVA was used because more than two groups participated in the study.

In this study, an F value of 2.40 is necessary for 3,296 degrees of freedom before significant differences between groups can be concluded at the .05 level of significance. In order to determine how the groups differ, the Scheffé test, a conservative method, was used to locate all differences in the analysis of variance. The results of the analysis of variance and the multiple comparison of group means for is (present) and should be (ideal) importance of the goals are presented in Tables IX and X.

TABLE IX  
ONE-WAY ANALYSIS OF VARIANCE AND SCHEFFÉ MULTIPLE COMPARISON OF GROUP MEANS FOR  
IMPORTANCE OF TOP TWENTY IS GOALS (PRESENT)

Goal	Source of Variance	Df	SS	MS	F	P	Group°	Mean	Group
Goal 21--Teachers should set up learning centers.	Between	3	19.120	6.373	7.985	0.0001	1	1.99	1
	Within	295	235.473	0.798			2	2.26	2
	Total	298	254.593				3	2.56	3
							4	2.12	4
Goal 6--Teachers should prescribe remediation based on diagnosis of child's learning problems.	Between	3	26.528	8.842	9.070	0.0001	1	1.94	1
	Within	296	288.599	0.975			2	2.41	2
	Total	299	315.127				3	2.59	3
							4	2.00	4
Goal 45--Teachers should be facilitators of learning.	Between	3	26.789	8.929	9.598	0.0001	1	1.91	1
	Within	296	275.395	0.930			2	2.52	2
	Total	299	302.184				3	2.57	3
							4	2.21	4
Goal 33--Teachers should teach study skills.	Between	3	20.828	6.942	8.306	0.0001	1	2.05	1
	Within	296	247.420	0.835			2	2.43	2
	Total	299	268.248				3	2.64	3
							4	2.18	4



TABLE IX--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 42--Teachers should provide effective learning climate in the classroom.	Between	3	15.560	5.186	5.123	0.0018	1	2.10	1 2 3 4
	Within	295	298.658	1.012			2	2.66	*
	Total	298	314.218				3	2.49	*
							4	2.09	
Goal 12--Teachers should teach social science.	Between	3	22.993	7.664	9.629	0.0001	1	1.95	1 2 3 4
	Within	296	235.602	0.796			2	2.55	*
	Total	299	258.595				3	2.55	*
							4	2.18	
Goal 80--Teachers should know the purposes of education.	Between	3	40.453	13.484	17.662	0.0001	1	1.89	1 2 3 4
	Within	296	225.982	0.763			2	2.50	*
	Total	299	266.435				3	2.70	*
							4	2.59	*
Goal 53--Teachers should observe, record, and interpret child behavior.	Between	3	28.962	9.654	10.912	0.0001	1	2.13	1 2 3 4
	Within	295	260.982	0.884			2	2.73	*
	Total	298	289.944				3	2.74	*
							4	2.06	
Goal 18--Teachers should teach spelling.	Between	3	18.730	6.243	6.447	0.0003	1	2.13	1 2 3 4
	Within	296	286.638	0.968			2	2.48	
	Total	299	305.368				3	2.67	*
							4	2.12	

TABLE IX--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 35--Teachers should teach the metric system.	Between Within Total	3 295 298	1.837 211.887 213.724	0.612 0.718	0.853	0.4662		+	
Goal 19--Teachers should teach music.	Between Within Total	3 295 298	1.379 196.345 197.724	0.459 0.665	0.691	0.5584		+	
Goal 60--Teachers should demonstrate model behavior.	Between Within Total	3 279 282	14.867 235.625 250.492	4.955 0.844	5.868	0.0007	1 2 3 4	2.19 2.83 2.57 2.61	1 2 3 4
Goal 68--Teachers should possess a body of knowledge in various disciplines.	Between Within Total	3 296 299	14.825 207.719 222.544	4.941 0.701	7.042	0.0001	1 2 3 4	2.08 2.59 2.54 2.26	1 2 3 4
Goal 3--Teachers should diagnose students' interest.	Between Within Total	3 296 299	21.204 308.873 329.277	7.068 1.040	6.791	0.0002	1 2 3 4	1.96 2.57 2.52 2.41	1 2 3 4

TABLE IX--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 36--Teachers should provide citizenship education to students.	Between	3	21.061	7.020	7.619	0.0001	1	2.02	1
	Within	295	271.819	0.921			2	2.75	2
	Total	298	292.881				3	2.49	3
							4	2.26	4

\*Pairs significantly different from each other at the .05 level.

<sup>o</sup>Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

†No significant differences between pairs.



### Present (Is) Goals

An examination of the data in Table IX reveals that there are significant differences in the perceptions of the four professional groups of respondents regarding the importance that is attached to 18 of the 20 most important is (present) goals. The results of the analysis of variance show agreement on only two goals. The goals are those which require a teacher to teach the metric system (Goal 35) and teach music (Goal 19). The largest number of significant differences occurs between practicing teachers and student teachers.

### Ideal (Should Be) Goals

Group means of the four professional groups were compared regarding the importance that should be attached to these top 20 selections. The results of the analysis of variance are presented in Table X. The data in Table X reveal that the differences between group means are large enough to be significant at the .05 level for only two goals: teachers should prescribe remediation based on diagnosis of child's learning problems (Goal 6) and teachers should diagnose students' interest (Goal 3). Significant differences were found again between practicing teachers and officials of the Ministry of Education.

A study of the subjects' ratings of the is goals (present) and the should be goals (ideal) shows that the subjects

TABLE X  
ONE-WAY ANALYSIS OF VARIANCE AND SCHEFFÉ MULTIPLE COMPARISON OF GROUP MEANS FOR  
IMPORTANCE OF TOP TWENTY SHOULD BE GOALS (IDEAL)

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 21--Teachers should set up learning centers.	Between Within Total	3 293 296	1.153 176.387 177.540	0.384 0.602	0.639	0.5907		†	
Goal 6--Teachers should pre- scribe remediation based on diagnosis of child's learning problems.	Between Within Total	3 296 299	5.987 132.998 138.985	1.995 0.449	4.442	0.0045	1 2 3 4	4.65 4.55 4.32 4.53	1 2 3 4 *
Goal 45--Teachers should be facilitators of learning.	Between Within Total	3 296 299	2.582 155.335 157.917	0.860 0.524	1.640	1.801		†	
Goal 33--Teachers should teach study skills.	Between Within Total	3 296 299	2.105 160.560 162.665	0.701 0.542	1.294	0.2767		†	
Goal 77--Teachers should read professional literature.	Between Within Total	3 296 299	1.856 161.809 163.665	0.618 0.546	1.132	0.3363		†	

TABLE X--Continued

Goal	Source of Variance	DF	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 39--Teachers should teach problem-solving techniques.	Between Within Total	3 296 299	1.263 186.922 188.185	0.421 0.631	0.667	0.5730		+	
Goal 15--Teachers should teach reading.	Between Within Total	3 295 298	3.630 166.877 170.508	1.210 0.565	2.139	0.0954		+	
Goal 51--Teachers should have regular conferences with students.	Between Within Total	3 296 299	0.684 165.563 166.247	0.228 0.559	0.408	0.7474		+	
Goal 48--Teachers should present questions and problems at students' intellectual level.	Between Within Total	3 296 299	2.810 127.438 130.249	0.936 0.430	2.176	0.0909		+	
Goal 42--Teachers should provide effective learning climate in the classroom.	Between Within Total	3 296 299	3.321 178.848 182.169	1.107 0.604	1.832	0.1413		+	

TABLE X--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>a</sup>	Mean	Group
Goal 12--Teachers should teach social science.	Between Within Total	3 296 299	1.394 150.373 151.767	0.464 0.508	0.915	0.433		+	
Goal 80--Teachers should know the purposes of edu- cation.	Between Within Total	3 295 298	0.946 103.360 104.307	0.315 0.350	0.901	0.4411		+	
Goal 53--Teachers should ob- serve, record, and inter- pret child behavior.	Between Within Total	3 296 299	0.612 152.266 152.878	0.204 0.514	0.397	0.7552		+	
Goal 18--Teachers should teach spelling.	Between Within Total	3 296 299	1.138 172.139 173.277	0.379 0.581	0.653	0.5818		+	
Goal 35--Teachers should teach the metric system.	Between Within Total	3 294 297	3.324 173.009 176.333	1.108 0.588	1.883	0.1325		+	
Goal 19--Teachers should teach music.	Between Within Total	3 296 299	0.241 160.544 160.785	0.080 0.542	0.149	0.9306		+	

TABLE X--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 60--Teachers should demonstrate model behavior.	Between	3	1.425	0.475	0.926	0.4287		+	
	Within	296	151.894	0.513					
	Total	299	153.319						
Goal 68--Teachers should possess a body of knowledge in various disciplines.	Between	3	3.541	1.180	1.818	0.1440		+	
	Within	296	192.243	0.649					
	Total	299	195.785						
Goal 3--Teachers should diagnose students' interest.	Between	3	12.993	4.331	8.617	0.0001	1	4.03	1
	Within	296	148.791	0.502			2	4.36	2
	Total	299	161.784				3	4.48	3
Goal 36--Teachers should provide citizenship education to students.	Between	3	1.761	0.587	1.331	0.2645	4	4.50	4
	Within	296	130.567	0.441					
	Total	299	132.328						

\*Pairs significantly different from each other at the .05 level.

<sup>o</sup>Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

†No significant differences between pairs.

do not seem to agree on the importance that is currently attached to the top 20 selections. They do, however, seem to agree on the importance that should be attached to these goals.

The one-way analysis of variance and the Scheffé multiple test were also computed to see how the four professional groups of respondents differ in their perceptions regarding the lowest-ranked goals. Tables XI and XII present data on the is goals (present) and the should be goals (ideal) for the importance of the 10 goals ranked lowest by the four professional groups of respondents.

The data in Table XI indicate that the four professional groups do not differ significantly in their perceptions regarding the is goals (present) ranked lowest except for two goals: a teacher should know the history of the British Empire (Goal 69) and a teacher should help students to acquire faith in man's ability to make rational decisions (Goal 29). The result of the Scheffé test shows significant differences between practicing teachers and student teachers regarding these goals.

The one-way analysis of variance and the Scheffé multiple test were computed to see how the four professional groups of respondents differ in their perceptions about the should be goals (ideal) ranked lowest. Table XII presents information related to the importance of these goals.

TABLE XI  
ONE-WAY ANALYSIS OF VARIANCE AND SCHEFFÉ MULTIPLE COMPARISON OF GROUP MEANS FOR  
IMPORTANCE OF TEN LOWEST IS GOALS (PRESENT)

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 69--Teachers should know the history of the British Empire.	Between	3	28.502	9.500	15.762	0.0001	1	1.94	1
	Within	296	178.416	0.602			2	2.00	2
	Total	299	206.918				3	2.15	3
							4	1.12	4
Goal 1--Teachers should set and share objectives with students.	Between	3	3.126	1.042	1.269	0.2851	+		
	Within	296	243.042	0.821					
	Total	299	246.168						
Goal 49--Teachers should have testing skills.	Between	3	4.539	1.513	1.934	0.1242	+		
	Within	296	231.645	0.782					
	Total	299	236.184						
Goal 31--Teachers should encourage student self-evaluation.	Between	3	1.092	0.364	0.384	0.7645	+		
	Within	295	279.765	0.948					
	Total	298	280.767						
Goal 7--Teachers should determine readability level of books.	Between	3	5.774	1.924	2.940	0.0335	+		
	Within	296	193.810	0.940					
	Total	299	199.584						

TABLE XI--Continued

Group	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 34--Teachers should show students relationship between disciplines.	Between	3	1.434	0.478	0.704	0.5503		+	
	Within	296	201.001	0.679					
	Total	299	202.435						
Goal 28--Teachers should teach students to use free time in intellectual and cultural activities.	Between	3	5.601	1.867	2.593	0.0528		+	
	Within	296	213.143	0.720					
	Total	299	218.744						
Goal 29--Teachers should help students acquire faith in man's ability to make rational decisions.	Between	3	15.570	5.190	7.071	0.0001	1	2.37	1
	Within	296	217.264	0.734					
	Total	299	232.834						
Goal 22--Teachers should design scope and sequence.	Between	3	5.862	1.954	2.442	0.0643	2	2.93	2
	Within	296	236.815	0.800					
	Total	299	242.677						
							3	2.62	3
							4	2.15	4



TABLE XI--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 46--Teachers should foster democratic procedures for making classroom management decisions.	Between	3	1.662	0.554	0.840	0.4727			
	Within	296	195.252	0.659					
	Total	299	196.914					†	

\*Pairs significantly different from each other at the .05 level.

<sup>o</sup>Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

†No significant differences between pairs.

TABLE XII  
ONE-WAY ANALYSIS OF VARIANCE AND SCHEFFÉ MULTIPLE COMPARISON OF GROUP MEANS FOR  
IMPORTANCE OF TEN LOWEST SHOULD BE GOALS (IDEAL)

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 69--Teachers should know the history of the British Empire.	Between	3	6.207	2.069	5.579	0.0010	1	1.70	1
	Within	296	109.777	0.370			2	1.89	2
	Total	299	115.984				3	1.68	3
							4	1.32	4
Goal 1--Teachers should set and share objectives with students.	Between	3	4.617	1.539	2.357	0.0720		+	
	Within	288	188.076	0.653					
	Total	291	192.693						
Goal 49--Teachers should have testing skills.	Between	3	2.739	0.913	1.729	0.1611		+	
	Within	296	156.339	0.528					
	Total	299	159.078						
Goal 31--Teachers should encourage student self-evaluation.	Between	3	2.468	0.822	1.477	0.2210		+	
	Within	296	164.927	0.557					
	Total	299	167.395						
Goal 7--Teachers should determine readability level of books.	Between	3	1.289	0.429	0.880	0.4516		+	
	Within	296	144.495	0.488					
	Total	299	145.784						

TABLE XII--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 34--Teachers should show students relationship between disciplines.	Between Within Total	3 296 299	2.880 163.304 166.185	0.960 0.551	1.741	0.1588		†	
Goal 28--Teachers should teach students to use free time in intellectual activities.	Between Within Total	3 296 299	2.547 174.847 177.394	0.849 0.590	1.438	0.2319		†	
Goal 29--Teachers should help students acquire faith in man's ability to make rational de- cisions.	Between Within Total	3 296 299	2.719 140.649 143.368	0.906 0.475	1.908	0.1284		†	
Goal 22--Teachers should de- sign scope and sequence.	Between Within Total	3 296 299	3.933 165.062 168.995	1.311 0.557	2.351	0.0725		†	

TABLE XII--Continued

Goal	Source of Variance	Df	SS	MS	F	P	Group <sup>o</sup>	Mean	Group
Goal 46--Teachers should foster democratic proce- dures for making classroom decisions.	Between	3	2.777	0.925	1.982	0.1167		†	
	Within	296	138.222	0.467					
	Total	299	140.999						

\*Pairs significantly different from each other at the .05 level.

<sup>o</sup>Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

†No significant differences between pairs.

The data in Table XII show that there are no significant differences in the perceptions of the four professional groups of respondents regarding the goals ranked lowest except for the goal that a teacher should know the history of the British Empire (Goal 69). The result of the Scheffé test shows significant differences between student teachers and the officials of the Ministry of Education, between teacher educators and officials of the Ministry of Education, and between practicing teachers and officials of the Ministry of Education.

Pairs of groups that are significantly different at the .05 level of significance can be readily seen. The data related to goals ranked both highest and lowest by all professional groups of respondents are presented in Table XIII and XIV.

#### Summary of Pairs of Group Means that Are Significantly Different

Information concerning both is (present) and should be (ideal) responses for goals ranked highest and lowest is summarized in Tables XIII and XIV. A study of the data in Table XIII reveals that practicing teachers and Ministry of Education officials do not seem to agree on the importance that is currently attached to most of the goals, but they all demonstrate agreement on the importance that should be attached to the goals with the exception of two goals: a

TABLE XIII  
SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN  
PROFESSIONAL GROUPS\* FOR TWENTY HIGHEST  
GOALS

Goal	Is Significant Differences between Professional Groups	Should Be Significant Differences between Professional Groups
21	3-1	3-1
6	3-1, 3-4	
45	3-1, 2-1	
33	3-1	
77	3-1, 2-1, 3-4	
39	3-1, 2-1, 4-1	
15	3-1	
51	3-1, 2-1	
48	3-1, 2-1	
42	3-1, 2-1	
12	3-1, 2-1	
80	3-1, 2-1, 4-1	
53	3-1, 3-4, 2-4, 2-1	
18	3-1, 3-4	
35		
19		
60	3-1, 2-1	3-1, 4-1
68	3-1, 2-1	
3	3-1, 2-1	
36	3-1, 2-1	

\*Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

teacher should prescribe remediation based on diagnosis of child's learning problems (Goal 6) and a teacher should diagnose students' interest (Goal 3). Teacher educators also do not seem to agree on the importance that is presently attached to the 20 top selections by the four

professional groups, but they do not differ in their perceptions regarding the importance that should be attached to the 20 selections in order to improve teacher education in Cross River State, Nigeria.

Pairs of groups that are significantly different at the .05 level of significance can be readily perceived. The summary data related to goals ranked lowest by the four professional groups of respondents are presented in Table XIV. This summary information is presented in order to highlight the significant differences.

TABLE XIV  
SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN  
PROFESSIONAL GROUPS\* FOR TEN LOWEST GOALS

Goal	Is Significant Differences between Professional Groups	Should Be Significant Differences between Professional Groups
69 1 49 31 7 34 28 29 22 46	3-4, 2-4, 1-4      2-1, 2-4	3-4, 2-4, 1-4

\*Groups: 1--officials of the Ministry of Education, 2--teacher educators, 3--practicing teachers, 4--student teachers.

A study of the data in Table XIV reveals that practicing teachers and student teachers do not seem to agree on the importance that is or should be attached to the study of the history of the British Empire. Generally, however, there is agreement as to the importance that should be attached to the goals ranked lowest by all four professional groups of respondents.

#### Classification of Needs into Broad Categories

Research question two concerns the classification of the identified needs into broad categories. All of the goals selected on the basis of the needs index by all four professional groups of respondents are classified into the five broad categories of teacher education as defined in this study. These broad categories of teacher education were discussed previously in this chapter.

The upper three quartiles and two tie scores were selected as the goals most important for consideration in developing the model of teacher education for Cross River State, Nigeria. Determination of importance was also based on the needs index computed for each goal. Table XV contains the 62 goals classified into the five broad categories.

The data in Table XV indicate that 32 of the 62 goals identified as needs for pre-service teacher education by all four professional groups of respondents relate



TABLE XV  
CLASSIFICATION OF IDENTIFIED NEEDS INTO BROAD  
CATEGORIES: FINAL LIST

Rank	Goal	Category/Short Title of Goal	Needs Index
<u>Category I: General Education</u>			
17.5	71	Have a thorough preprofessional background in general education.	0.544
<u>Category II: Teacher Behavior--Diagnosing and Goal-Setting</u>			
2	6	Prescribe remediation based on diagnosis of child's learning problems.	0.495
17.5	3	Diagnose students' interest.	0.544
18	5	Utilize diagnostic procedures as an ongoing process throughout all learning experiences.	0.545
37.5	4	Use diagnostic procedures to discover the students' strengths and weaknesses.	0.571
38.5	2	Divide teaching units into daily lesson plans.	0.572
26.5	9	Identify causes of undesirable student behavior.	0.557
39.5	55	Provide students or parents with information related to the students' progress.	0.573
<u>Category III: Teacher Function--Teaching Strategies</u>			
1	21	Set up learning centers.	0.494
4	33	Teach study skills.	0.517
5.5	39	Teach problem-solving techniques.	0.521
6	15	Teach reading.	0.523
7	51	Have regular personal conferences with students.	0.524
8	48	Present questions and problems at students' intellectual level.	0.531
9	42	Provide effective learning climate in the classroom.	0.533
10.5	26	Provide question and answer time each day.	0.534

TABLE XV--Continued

Rank	Goal	Category/Short Title of Goal	Needs Index
10.5	12	Teach social science.	0.534
12	53	Observe, record, and interpret child behavior.	0.538
13	18	Teach spelling.	0.539
14	35	Teach the metric system.	0.540
15	19	Teach music.	0.542
17.5	36	Provide citizenship education to students.	0.544
19	54	Have adequate knowledge of child growth.	0.546
21.5	27	Provide a classroom environment in which a variety of individual and group experiences can occur.	0.548
21.5	65	Utilize the period of student teaching effectively.	0.548
23	24	Develop student confidence by adjusting teaching to fit each student's ability.	0.551
24.5	20	Teach physical education.	0.552
24.5	38	Select and use audiovisual aids.	0.552
24.5	41	Provide basic tools for further educational advancement.	0.552
27.5	25	Provide the type of classroom atmosphere that permits free questioning and exploration.	0.558
28.5	40	Help students to communicate effectively.	0.559
31	32	Plan a personalized program of instruction.	0.565
32.5	13	Teach health science.	0.566
32.5	14	Teach language arts.	0.566
32.5	23	Begin instruction at child's maturational level.	0.566
33.5	17	Teach arts and crafts.	0.567
34	30	Help students acquire moral and spiritual values.	0.568
38.5	50	Use test results to evaluate student progress.	0.572
38.5	52	Encourage student self-evaluation.	0.572
38.5	74	Stress language development in all instructional activities.	0.572

TABLE XV--Continued

Rank	Goal	Category/Short Title of Goal	Needs Index
<u>Category IV: Teacher Personal Characteristics</u>			
3	45	Be a facilitator of learning.	0.511
5.5	77	Read professional literature.	0.521
16	60	Demonstrate model behavior.	0.543
17.5	59	Motivate students to want to learn.	0.544
20.5	63	Adhere to the codes of ethics of the teaching profession.	0.547
22	47	Read, write, and speak English fluently.	0.549
25	79	Show adequate understanding of the "learning style" of youngsters.	0.554
26	58	Serve as counselor.	0.557
27.5	57	Be honest.	0.558
28.5	44	Accept individual differences among children	0.559
29	56	Motivate students by projecting enthusiastic attitude for the subject matter.	0.562
35	61	Provide a school environment that is "success" rather than "failure" oriented.	0.569
36	78	Take professional growth as a personal responsibility.	0.570
37.5	67	Have commitment to professional skills as well as academic competence.	0.571
39.5	64	Make school a joyous place.	0.573
<u>Category V: Teacher Intellectual Characteristics</u>			
11	80	Know the purposes of education.	0.536
17.5	68	Possess a body of knowledge in the several disciplines one is responsible to teach.	0.544
20.5	76	Have intellectual and professional background adequate for teaching assignment.	0.547
28.5	66	Know the principles of learning.	0.559
30	43	Give students opportunities for developing manipulative skills.	0.564

TABLE XV--Continued

Rank	Goal	Category/Short Title of Goal	Needs Index
33.5	75	Be trained to minister to the psychological needs of students.	0.567
38.5	62	Use effective reinforcement techniques.	0.572

to teaching strategies and evaluation, and only 1 goal can be classified as general education. Fifteen goals relate to teacher personal characteristics.

#### Classification of the Twenty Most Important Goals into Broad Categories

In order to assist in the identification and analysis of the needs of pre-service primary teachers, the 20 most important goals by needs index are also grouped into five broad categories of teacher education. The 20 most important goals ranked by all four professional groups fall into four of the five broad categories. There is no goal in general education (Category I). The goals in broad category II, teacher behavior--diagnosing and goal-setting, are that a teacher should

Prescribe remediation based on the diagnosis of  
child's learning problems (Goal 6) and  
Diagnose students' interest (Goal 3).

Goals in broad category III, teaching strategies, are that a teacher should

Set up learning centers (Goal 21);  
 Teach study skills (Goal 33);  
 Teach problem-solving techniques (Goal 39);  
 Teach reading (Goal 15);  
 Have regular personal conferences with students  
 (Goal 51);  
 Present questions and problems at students' intel-  
 lectual level (Goal 48);  
 Provide effective learning climate in the classroom  
 (Goal 42);  
 Teach social science (Goal 12);  
 Observe, record, and interpret child behavior  
 (Goal 53);  
 Teach spelling (Goal 18);  
 Teach the metric system (Goal 35);  
 Teach music (Goal 19); and  
 Provide citizenship education to students (Goal 36).

Goals in broad category IV, teacher personal characteris-  
tics, are that a teacher should

Be a facilitator of learning (Goal 45);  
 Read professional literature (Goal 77); and  
 Demonstrate model behavior (Goal 60).

Goals in broad category V, teacher intellectual charac-  
teristics, are that a teacher should

Know the purposes of education (Goal 80) and  
 Possess a body of knowledge in various disciplines  
 (Goal 68).

Research question three concerns the priorities as-  
 signed to the various needs identified by the groups sur-  
 veyed. To determine these priorities, a needs index was  
 computed by dividing the sum of all group means for is  
 goals (present) by the sum of all group means for should be  
 goals (ideal), with a smaller quotient indicating greater  
 need. This needs index for all four professional groups  
 is presented in Appendix H. The priorities for the 20

most important goals rated by the four professional groups of respondents are the following:

1. Set up learning centers (Goal 21);
2. Prescribe remediation based on the diagnosis of child's learning problems (Goal 6);
3. Be a facilitator of learning (Goal 45);
4. Teach study skills (Goal 33);
5. Read professional literature (Goal 77);
6. Teach problem-solving techniques (Goal 39);
7. Teach reading (Goal 15);
8. Have regular personal conferences with students (Goal 51);
9. Present questions and problems at students' intellectual level (Goal 48);
10. Provide effective learning climate in the classroom (Goal 42);
11. Teach social science (Goal 12);
12. Know the purposes of education (Goal 80);
13. Observe, record, and interpret child behavior (Goal 53);
14. Teach spelling (Goal 18);
15. Teach the metric system (Goal 35);
16. Teach music (Goal 19);
17. Demonstrate model behavior (Goal 60);
18. Possess a body of knowledge (Goal 68);
19. Diagnose students' interest (Goal 3); and
20. Provide citizenship education to students (Goal 36).

A complete list showing all the needs as identified and ranked by the four professional groups and the priorities that have been assigned to the goals is presented in Table XV. The data in the table also show the classification of the needs into broad categories.

#### Responses of the Citizen Group

Twenty citizens were interviewed for the study. They were asked to respond to 10 goal statements taken out of the 80 goal statements for the study. They were only asked

to assign numbers to each goal statement to show the degree of importance that should be attached to that statement. The scale value for the should be (ideal) statements is as follows: 5 = of extremely high importance, 4 = of high importance, 3 = of medium importance, 2 = of low importance, and 1 = of no importance. Appendix C contains the interview questions for the citizen group.

The responses of the citizen group are reported in Table XVI. The data in the table show the mean and rank order of the means for the citizen group of respondents.

TABLE XVI  
MEAN AND RANK ORDER FOR CITIZEN  
RESPONSES (N = 20)

Item	Goal	Should Be (Ideal) Mean	Rank Order of Mean
1	1	4.384	10
2	11	4.299	4
3	15	4.316	5
4	32	4.367	8
5	59	4.282	1.5
6	60	4.282	1.5
7	37	4.341	7
8	40	4.290	3
9	76	4.376	9
10	57	4.333	6

To establish priorities for the citizen group, the means for the goal statements were rank ordered, with the lowest mean receiving the highest ranking and the highest

mean receiving the lowest ranking. The data in Table XVI indicate the choices of the citizen group of respondents. This group's choices and their classifications are that a teacher should

- Motivate students to want to learn (Goal 59);
- Demonstrate model behavior (Goal 60);
- Help students to communicate effectively (Goal 40);
- Teach mathematics (Goal 11);
- Teach reading (Goal 15);
- Be honest (Goal 57);
- Have knowledge of the society (Goal 37);
- Plan a personalized program of instruction (Goal 32);
- Have intellectual and professional background (Goal 76); and
- Set and share objectives with students (Goal 1).

Four of the goals are teaching strategies, three are teacher personal characteristics, two are teacher intellectual characteristics, and one is teacher behavior (diagnosing and goal-setting). There are no goals in general education.

Seven of the goals support the responses from the four professional groups of respondents. The goals in the 20 most important goals rated by the four professional groups of respondents (Table III) are that a teacher should

- Demonstrate model behavior (Goal 60) and
- Teach reading (Goal 15).

Five of the seven goals which support the findings of the four professional groups of respondents are among the 62 goals identified by all four professional groups (Table XV). These goals are that a teacher should

- Motivate students to want to learn (Goal 59);
- Help students to communicate effectively (Goal 40);



Be honest (Goal 57);  
Plan a personalized program of instruction (Goal  
32); and  
Have intellectual and professional background  
(Goal 76).

### Summary of Findings

The major findings of the study are as follows.

1. Thirteen of the 20 most important goals rated by the combined four professional groups relate to teaching strategies. None relates to general education.
2. Six of the 10 least important goals rated by the combined four professional groups also relate to teaching strategies.
3. None of the 20 most important goals was selected as most important by all four professional groups. Only 8 of these goals were selected as the most important by three of the four professional groups.
4. Sixteen of the 20 goals rated highest by officials of the Ministry of Education are the same as those in the 20 goals rated highest by the combined four professional groups. Six goals rated lowest by this group are the same as the 10 goals rated lowest by the combined four professional groups.
5. Thirteen of the 20 most important goals rated by teacher educators are the same as those rated highest by the combined four professional groups. Five of the 10

goals ranked lowest by this group are the same as those ranked lowest by the combined four professional groups.

6. Ten of the 20 goals rated highest by practicing teachers are the same as those ranked highest by the combined four professional groups. Only 1 of the 10 goals ranked lowest by this group is the same as that ranked lowest by the combined four professional groups.

7. Only 7 of the 20 goals ranked highest by student teachers are the same as those ranked highest by the combined four professional groups. Only 4 of the 10 goals ranked lowest by this group are the same as those ranked lowest by the combined four professional groups.

8. Goals related to general education were rated highly only by officials of the Ministry of Education.

9. The officials of the Ministry of Education and teacher educators rated goals which relate to the study of child growth and development very highly, but practicing teachers and student teachers rated them low.

10. There are significant differences among the perceptions of the combined four professional groups regarding the importance that is currently attached to 18 of the 20 most important goals. However, the groups seem to agree on the importance that should be attached to these goals.

11. Practicing teachers and student teachers do not seem to agree about the importance that is or should be

attached to the goals ranked lowest by all four professional groups combined.

12. Officials of the Ministry of Education, teacher educators, and practicing teachers differ in their perceptions regarding the importance that should be attached to the goal which requires teachers to know the history of the British Empire.

13. Thirty-two of the 62 goals in the upper three quartiles of importance, as determined by the needs index, are teaching strategies, 15 are teacher personal characteristics, 7 are teacher intellectual characteristics, 7 are teacher behavior (diagnosing and goal-setting), and only 1 is general education.

14. The 20 goals with the highest needs index fall into four of the five broad categories of teacher education. None is in the broad category of general education.

15. The 7 highest goals as ranked by the citizen group correspond generally to the responses from the four combined professional groups and are among the goals in the upper three quartiles of the 80 goals in the instrument.

#### A Model for the Preparation of Pre-Service Teachers

Research question four concerns the incorporation of the identified needs into a plan for improving pre-service primary teacher education in Cross River State, Nigeria.

This model is based on the findings of the study and teacher education programs in some developed countries.

In this model, attempts are made to incorporate the findings of the study into a plan for improving teacher education in Cross River State, Nigeria. The model follows the format of the American NCATE Standards for the Initial Preparation of Teachers (1, pp. 3-6). This pre-service primary teacher education program is designed to prepare the teacher trainee to assume full responsibilities as a beginning teacher. In broad outline, the model elements include I--General Education, II--Content, III--Professional Studies, and IV--Field Experiences.

#### I--General Education

General education includes studies in language and communication skills, mathematics, literature, political science, music, psychology, and economics.

Justification: General education is a component of the NCATE Standards for the Initial Preparation of Teachers (1). In addition, most other models contain an area known as general education, and scholars in the field also support this area. Goals related to general education are found in the upper three quartiles of the needs index in this study, although these goals are not rated in the upper 20 except by officials of the Ministry of Education. It is possible that the

responses indicate that the general education requirements are currently adequate.

## II--Content

Content includes mathematics, social science, language, reading, the sciences, arts, spelling, health education, physical education, and writing.

Justification: Goals related to the content of the curriculum are rated highly by practicing teachers, student teachers, and teacher educators. All other models contain this area, as do the American NCATE Standards for the Initial Preparation of Teachers (1).

## III--Professional Studies

The professional studies component includes (a) school organization, (b) curriculum studies, (c) study of the learner, and (d) teaching strategies. (a) School organization comprises the smooth running of the school; vertical organization--graded and non-graded schools and the multi-graded classroom; horizontal organization--the self-contained classroom and one teacher per classroom instructional organization; team teaching or cooperative teaching--grouping strategies and discipline. (b) Curriculum studies include child-centered learning, subject-centered learning, scope, sequence, continuity, integration, and sources and forces affecting curriculum design. (c) Study of the

learner comprises child psychology, child development and growth, intellectual development, physical development, and personality development. (d) Teaching strategies include methods of teaching study skills, problem-solving techniques, reading, social science, spelling, and the sciences as well as evaluation and diagnosing techniques and observing, recording, and interpreting child behavior.

Justification: All groups stress the need for developing teaching strategies. The majority of the goals selected by the professional and the citizen groups in the upper three quartiles relate to teaching strategies and evaluation. This area represents the professional development of a teacher. Knowledge of school organization, curriculum, the learner, and professional strategies is regarded as essential by all professional educators.

#### IV--Field Experiences

Field experiences involve the teacher in direct contact with children. Areas of involvement include diagnosis and treatment of learning problems, planning individual programs, and selecting and organizing content. Activities such as classroom management procedures, motivation, selecting learning sources, and grouping techniques are also included. Student teaching then serves to enable the student to demonstrate abilities under the direct supervision of practicing professionals.

Justification: Professional preparation has come to depend on actual supervised practice of professional skills as an essential component. Goals involving related activities were highly rated by a large majority of the professional groups in the upper three quartiles. In addition, there is no evidence to suggest that it should not be included in this model.

## CHAPTER BIBLIOGRAPHY

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## CHAPTER V

### SUMMARY OF FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS FOR FURTHER RESEARCH

This chapter contains a summary of findings of the study and points to some conclusions and implications as a result of the analysis of the data. Recommendations for further study relative to the needs of pre-service teacher education in Cross River State, Nigeria, are also included in this chapter. The purposes of the study were (1) to identify and classify the needs of pre-service primary teacher education in Cross River State, Nigeria; (2) to establish a priority of the identified needs by perceived importance; and (3) to propose a model for the preparation of primary teachers in Cross River State, Nigeria, based on the identified needs.

The 80 goal statements used in the study as the goals to which teachers should aspire represent the expressed opinions of experts in the field of education. The questionnaire requested two responses from the subjects. The first response elicited the subjects' views of the degree of importance that is currently attached to the goal statements. In the second response, subjects were asked to state

the degree of importance that should be attached to each goal statement as it relates to the preparation of primary teachers.

### Summary of Findings

The major findings of the study are as follows.

1. Thirteen of the 20 most important goals rated by the combined four professional groups relate to teaching strategies. None relates to general education.
2. Six of the 10 least important goals rated by the combined four professional groups also relate to teaching strategies.
3. None of the 20 most important goals was selected as most important by all four professional groups. Only 8 of these goals were selected as the most important by three of the four professional groups.
4. Sixteen of the 20 goals rated highest by officials of the Ministry of Education are the same as those in the 20 goals rated highest by the combined professional groups. Six goals rated lowest by this group are the same as the 10 goals rated lowest by the combined four professional groups.
5. Thirteen of the 20 most important goals rated by teacher educators are the same as those rated highest by the combined four professional groups. Five of the 10 goals ranked lowest by this group are the same as

those ranked lowest by the combined four professional groups.

6. Ten of the 20 goals rated highest by practicing teachers are the same as those ranked highest by the combined four professional groups. Only 1 of the 10 goals ranked lowest by this group is the same as that ranked lowest by the combined four professional groups.

7. Only 7 of the goals ranked highest by student teachers are the same as those ranked highest by the combined four professional groups. Only 4 of the 10 goals ranked lowest by this group are the same as those ranked lowest by the combined four professional groups.

8. Goals related to general education were rated highly only by officials of the Ministry of Education.

9. The officials of the Ministry of Education and teacher educators rated goals which relate to the study of child growth and development very highly, but practicing teachers and student teachers rated them low.

10. There are significant differences among the perceptions of the combined four professional groups regarding the importance that is currently attached to 18 of the 20 most important goals. However, the groups seem to agree on the importance that should be attached to these goals.

11. Practicing teachers and student teachers do not seem to agree with the importance that is or should be

attached to the goals ranked lowest by the combined four professional groups.

12. Officials of the Ministry of Education, teacher educators, and practicing teachers differ in their perceptions regarding the importance that should be attached to the goal which requires teachers to know the history of the British Empire.

13. Thirty-two of the 62 goals in the upper three quartiles of importance, as determined by the needs index, are teaching strategies, 15 are teacher personal characteristics, 7 are teacher intellectual characteristics, 7 others are teacher behavior (diagnosing and goal-setting), and only 1 is general education.

14. The 20 goals with highest needs index fall into four of the five broad categories of teacher education. None is in the broad category of general education.

15. The 7 highest goals as ranked by the citizen group correspond generally to the responses from the professional groups combined and are among the goals in the upper three quartiles of the 80 goals in the instrument.

### Conclusions

As a result of the findings of the study, some conclusions are drawn relative to the program of pre-service primary teacher education in Cross River State, Nigeria. These conclusions are the following.

1. The professional groups appear to regard goals which emphasize teaching strategies as crucial in the development of a teacher education program in Cross River State, Nigeria.

2. Officials of the Ministry of Education and teacher educators appear to be more alike in goal preferences than do the other groups.

3. No major concern for the goals related to general education seems evident.

4. A lack of agreement among the professional groups concerning the current goals in teacher education preparation programs may indicate a need for revisions.

5. There seems to be general agreement among the professional groups sampled regarding the importance that should be attached to the goals for the teacher education program.

#### Discussion of the Need for Changes in Teacher Education in Cross River State, Nigeria

This research, which is based upon the opinions expressed through the ratings of the groups surveyed, attempts to answer certain questions pertaining to the problems of pre-service primary teacher education. The information gathered on the needs of pre-service primary teacher education is intended for use in designing a training program

for pre-service primary teachers in Cross River State, Nigeria.

Data from this study indicate that the respondents are not in agreement with the format of the present teacher education program. The professional needs of pre-service teachers can be met by instructors in teacher's colleges through the careful development and presentation of proven teaching strategies. Student teachers may perform well in the classrooms to which they are assigned if they are given sufficient opportunity to work with children before student teaching.

Lack of agreement between the combined professional groups and the student teachers seems to indicate a lack of experience in the profession on the part of the student teachers. Mere classroom instruction in teaching techniques does not provide student teachers with the actual classroom experience they need.

Practicing teachers (teachers who are currently teaching) also do not agree with the opinions of the combined professional groups on goals ranked lowest. For example, two of the nine goals rated lowest are rated highest by the combined professional groups. The goals are that a teacher should

Read professional literature (Goal 77) and  
Teach spelling (Goal 18).

Teacher educators should ensure that the students they train have the abilities to use the most appropriate

teaching strategies at whatever level they will be assigned to teach. Students should be exposed to various types of teaching aids while in training.

One of the desirable goals that teachers should achieve, and one expressed by all the surveyed groups, is the ability to both recognize and prescribe remediation based on diagnosis of the different learning programs of children. Since children in every classroom are different, it is important for teachers to know their students and how they learn. Every child has innate capabilities and limitations, and teacher education programs should prepare teachers to recognize and utilize their students' potential and to discover and correct what is lacking in order to achieve fulfillment.

Another finding of the study is that teachers should be able to communicate effectively, and they should be able to teach communication skills to their students. Attempts should be made to improve the communication skills of student teachers.

The respondents agree that it is a highly important goal to train teachers to serve as counselors in an effort to improve or develop students' self-concept. This means that the teacher's colleges which train the teachers should provide the teachers in training with the necessary skills. It is important to note that the society from which these students come, and to which they will return, is fast

becoming increasingly complex, which makes it obligatory that teacher's colleges provide students with guidance and counseling services in relevant areas. If prospective teachers are to function effectively as counselors, training in these areas is mandatory. In addition, the teacher educators who prepare students teachers should not only teach the "how" of teaching but also serve as guides and counselors to the prospective teachers.

#### Recommendations for Cross River State, Nigeria

The following recommendations are based on the data from this study.

1. Teachers Grade Two institutions, which currently train primary six graduates for four years to teach in the primary schools, should be abolished in favor of the advanced teachers colleges, which currently prepare only high school graduates for three years to teach in high schools.
2. Field-based experiences should be made an integral part of teacher education programs.
3. All teachers should teach reading.
4. Since there is often a discrepancy between performance on a pencil-and-paper test of capabilities and actual classroom performance, overall evaluation of teachers should be spread throughout the new teacher's first year of teaching. Evidently more can be learned about the teaching strategies



of student teachers by watching them teach than by giving multiple-choice tests on teaching methods.

### Suggestions for Further Research

The following are recommended as possible areas for further study.

1. Research should be conducted on the effect of admission to teacher education programs through the common entrance examinations that are currently administered by the government of Cross River State, Nigeria. This type of study could reveal whether or not the present system of admitting students into teacher education is the most effective way of selecting teachers with great potential.

2. Research should be conducted to compare the achievement of students who enter teacher education with high school backgrounds with the achievement of those who enter by passing the General Certificate of Education (GCE) ordinary level.

3. A study is needed on the education level and limitations of primary school teachers and their implication for national development. This study might examine and analyze the development and current situation of primary teacher education in Nigeria in relation to the needs of the country at this time of political and economic reconstruction.

4. A study is needed that will evaluate the current pre-service primary teacher education program to determine the extent to which its objectives have been met.

5. A study is needed that will correlate the relationship between the conditions of service for teachers and their professional competence in the classroom. If differences exist, then a second part of the study should focus on the identification of the factors that appear to contribute to the observed differences.

## APPENDIX A

### PRIMARY PRE-SERVICE TEACHER EDUCATION:

#### A SURVEY OF NEEDS

This survey attempts to relate the needs of teacher education to educational goals in Cross River State, Nigeria. You are asked to give your opinion about what IS and what SHOULD BE the priority of importance placed on each statement as it relates to the preparation of teachers.

Please respond to each of the following statements on both scales. Place the number corresponding to the value which you assign to the item in each of the two columns: IS and SHOULD BE.

Use the following values:

- 5 = of extremely high importance
- 4 = of high importance
- 3 = of medium importance
- 2 = of low importance
- 1 = of no importance

You are asked to judge what is now important and what should be important.

Example: Rate the degree of importance currently attached to the item by placing the number in the blank at the left under the heading IS. Rate the degree of importance which SHOULD BE attached to the item by placing

the number in the blank to the right and under the heading  
SHOULD BE.

IS

SHOULD  
BE

A teacher should . . .

5Possess a body of knowledge in  
various disciplines.2

By placing a 5 in the blank to the left, you would indicate that you believe the statement is currently regarded to be "of extremely high importance." By placing a 2 in the column to the right, you would indicate that you believe the statement should be regarded to be "of low importance."

Survey:

- 5 = of extremely high importance
- 4 = of high importance
- 3 = of medium importance
- 2 = of low importance
- 1 = of no importance

IS

SHOULD  
BE

A teacher should . . .

      1. Develop and share objectives with  
students.            2. Divide teaching units into daily  
lesson plans.            3. Diagnose student interest by using  
a variety of assessment procedures  
and techniques.

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	4. Use diagnostic procedures to discover the student's strengths and weaknesses and the skills that he/she needs in order to achieve success.	_____
_____	5. Utilize diagnostic procedures as an ongoing process throughout all learning experiences.	_____
_____	6. Prescribe remediation based on diagnoses of the child's learning problems.	_____
_____	7. Be able to determine readability levels of books and other reading materials.	_____
_____	8. Make use of informal procedures like interviews and classroom observations for collecting information about a student.	_____
_____	9. Identify causes of undesirable student behavior and provide help to initiate change.	_____
_____	10. Ask questions which require students to use different thinking strategies.	_____
A teacher should demonstrate effective strategies in teaching . . .		
_____	11. Mathematics.	_____
_____	12. Social science.	_____
_____	13. Health science.	_____
_____	14. Language arts.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	15. Reading.	_____
_____	16. Writing.	_____
_____	17. Arts and crafts	_____
_____	18. Spelling.	_____
_____	19. Music.	_____
_____	20. Physical education.	_____
A teacher should . . .		
_____	21. Be able to set up areas (learning centers) for students to reinforce certain skills they have learned.	_____
_____	22. Design scope and sequence for each area (subject) of the curriculum.	_____
_____	23. Begin instruction at a level appropriate to the child's maturational level.	_____
_____	24. Develop student confidence by adjusting teaching procedures to fit each student's ability.	_____
_____	25. Provide the type of classroom atmosphere that permits free questioning and exploration by students.	_____
_____	26. Provide a question and answer time each day for those things children want to talk about that are not necessarily in the lesson.	_____
_____	27. Provide a classroom environment in which a variety of individual and group experiences can occur.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	28. Create a classroom climate in which students spend much of their free time in intellectual and cultural activities.	_____
_____	29. Help the students acquire faith in man's ability to make rational decisions.	_____
_____	30. Help students acquire moral and spiritual values appropriate to their own interpersonal needs.	_____
_____	31. Help the students acquire respect for the dignity of labor.	_____
_____	32. Be able to plan a personalized program of instruction for each student in a satisfactory manner.	_____
_____	33. Teach the students to use study aids in books: table of contents, glossary, index, footnotes, appendices, headlines, and questions.	_____
_____	34. Demonstrate competence in showing students the various relationships and influences selected disciplines have upon each other.	_____
_____	35. Be able to teach the metric system.	_____
_____	36. Provide citizenship education to his/her students as a basis for effective participation in and contribution to the life of the society.	_____
_____	37. Have adequate knowledge of the society for which the student is educated and to which he/she will return.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	38. Select and use audiovisual aids (e.g., films, filmstrips, slides, tape recorders, etc.)	_____
_____	39. Produce an acceptable systematic procedure for teaching students how to approach significant problems in a scientific manner.	_____
_____	40. Help students develop the ability to communicate effectively.	_____
_____	41. Provide his/her students with basic tools for further educational advancement, including preparation for trades and crafts of the locality.	_____
_____	42. Maintain a social climate that is conducive to effective learning in the classroom.	_____
_____	43. Give the students opportunities for developing manipulative skills that will enable them to function effectively in the society within the limits of their capacity.	_____
_____	44. Exhibit a high degree of acceptance of individual differences among students in terms of aptitudes and interest.	_____
_____	45. Be a facilitator of learning rather than a dictator of what is to be done.	_____
_____	46. Foster democratic procedures for making classroom management decisions (e.g., involve class in determining the classroom rules).	_____



- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	47. Be able to read, write, and speak English fluently.	_____
_____	48. Develop questions and problems at all cognitive levels suitable to the intellectual level of the class taught.	_____
_____	49. Utilize the advantages of essay, short answer, multiple choice, true/false, matching, and behavior checklist items in testing.	_____
_____	50. Use test results to evaluate student progress.	_____
_____	51. Have regular personal conferences with students as need arises.	_____
_____	52. Encourage student self-evaluation.	_____
_____	53. Be able to observe, record, and interpret child behavior.	_____
_____	54. Have adequate knowledge of child growth and development in order to understand why students behave the way they do.	_____
_____	55. Provide students/parents with information related to the students' progress, or lack of it.	_____
_____	56. Motivate students by projecting an enthusiastic attitude for the subject matter.	_____
_____	57. Be honest, fair, and considerate in all dealings with students, parents, and fellow teachers.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	58. Serve as counselor to improve or develop the individual self-concept.	_____
_____	59. Be able to stimulate students to want to learn.	_____
_____	60. Model the kind of behavior expected from students.	_____
_____	61. Provide a school environment that is "success" rather than "failure" oriented in nature.	_____
_____	62. Develop the skill of telling the student how he/she is doing rather than merely grading him/her on paper for this same purpose.	_____
_____	63. Adhere to the codes of ethics of the teaching profession.	_____
_____	64. Make school a pleasant place where students want to go every school day.	_____
_____	65. Utilize the period of student teaching to demonstrate competence rather than using the classroom as a place to learn teaching skills.	_____
_____	66. Demonstrate competence with certain known principles of learning--for example, students learn best when they are psychologically comfortable.	_____
_____	67. Have commitment to professional skills as well as academic competence.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	68. Possess a body of knowledge in the several disciplines one is responsible to teach.	_____
_____	69. Possess a thorough knowledge of the history of the British Empire.	_____
_____	70. Protect the right of teachers and students to discuss controversial ideas in the classroom.	_____
_____	71. Have a thorough pre-professional background in general education.	_____
_____	72. Understand and use the English language as a communication system.	_____
_____	73. Know the influence that social, economic, and cultural patterns have on language development.	_____
_____	74. Stress language development in all instructional activities, including play and dramatic experiences.	_____
_____	75. Be trained to minister to the psychological needs of students in the classroom.	_____
_____	76. Have intellectual and professional background adequate for teaching assignment.	_____
_____	77. Keep informed of current trends and practices in the teaching field by reading professional literature.	_____

- 5 = of extremely high importance  
 4 = of high importance  
 3 = of medium importance  
 2 = of low importance  
 1 = of no importance

IS		SHOULD BE
_____	78. Take professional growth as a personal responsibility by participating in in-service training programs.	_____
_____	79. Show adequate understanding of the "learning styles" of youngsters.	_____
_____	80. Use knowledge of the philosophy of education to help him/her consider professionally the purposes of education.	_____

## APPENDIX B

### GENERAL BACKGROUND DATA

To all respondents except where specified.

Please fill out the information below.

1. Your sex:

\_\_\_\_\_ Male

\_\_\_\_\_ Female

2. Your age at last birthday (approximate):

\_\_\_\_\_ 19 years or under

\_\_\_\_\_ 20 to 29 years

\_\_\_\_\_ 30 to 39 years

\_\_\_\_\_ 40 to 49 years

\_\_\_\_\_ 50 to 59 years

\_\_\_\_\_ 60 to 69 years

3. Indicate your category:

\_\_\_\_\_ Student

\_\_\_\_\_ Teacher educator

\_\_\_\_\_ Practicing teacher

\_\_\_\_\_ Official of the Ministry of Education

\_\_\_\_\_ Other (specify: \_\_\_\_\_)

## 4. Your major area of study:

☐ Arts and sciences☐ Humanities☐ Social sciences☐ Business☐ Other (specify: \_\_\_\_\_)

To be filled out by all except students.

## 5. Your level of education:

☐ Teacher's Grade Two☐ National Certificate of Education (NCE)☐ Bachelor's degree☐ Master's degree☐ Other (specify: \_\_\_\_\_)

## 6. Your rank (academic/administrative):

☐ Permanent secretary☐ Principal assistant secretary☐ Inspector of education☐ Education officer☐ Headmaster☐ Board member

## 7. Years of teaching/administrative experience:

- ☐ 1 to 5 years  
☐ 6 to 10 years  
☐ 11 to 15 years  
☐ 16 years or more

## 8. Country/institution where you obtained your qualification:

- ☐ Nigeria  
☐ Western Europe  
☐ United States of America  
☐ Other (specify: \_\_\_\_\_)

## 9. Country of citizenship:

- ☐ Nigeria  
☐ Western Europe  
☐ United States of America  
☐ Other (specify: \_\_\_\_\_)

## APPENDIX C

### INTERVIEW WITH CITIZENS

How important should the following goal statements be in the preparation of teachers in Cross River State, Nigeria?

Scale value:

- 5 = of extremely high importance
- 4 = of high importance
- 3 = of medium importance
- 2 = of low importance
- 1 = of no importance

A teacher should . . .

1. Share objectives with students. (Goal 1) \_\_\_\_\_
2. Teach reading. (Goal 15) \_\_\_\_\_
3. Teach mathematics. (Goal 11) \_\_\_\_\_
4. Plan a personalized program of instruction for each student in a satisfactory manner. (Goal 32) \_\_\_\_\_
5. Have adequate knowledge of the society for which the student is educated and to which he or she will return. (Goal 37) \_\_\_\_\_
6. Help the students develop the ability to communicate effectively. (Goal 40) \_\_\_\_\_
7. Be honest. (Goal 57) \_\_\_\_\_
8. Be able to stimulate students to want to learn. (Goal 59) \_\_\_\_\_
9. Model the kind of behavior expected from students. (Goal 60) \_\_\_\_\_
10. Have intellectual and professional background adequate for teaching. (Goal 76) \_\_\_\_\_



APPENDIX D

LETTER TO JURORS

April 10, 1982

Dear Sir:

I am working on a doctoral program in the Department of Education. The instrument to be used in the study has to be validated by a jury panel. I should like to solicit your help in validating the instrument. Please indicate below if you are willing to serve on the panel.

I am willing to serve. \_\_\_\_\_

I am not willing to serve. \_\_\_\_\_

\_\_\_\_\_  
Signature

Sincerely,

Udo A. Usoro

## APPENDIX E

### DIRECTIONS FOR EVALUATION OF INSTRUMENT

The instrument contains 80 goal statements for teacher education. Please evaluate each goal statement as (1) appropriate, (2) inappropriate, or (3) I don't know. Please make suggestions on a separate sheet of paper.

Place a check in the appropriate column.

	1	2	3		1	2	3		1	2	3		1	2	3
1.				23.				45.				67.			
2.				24.				46.				68.			
3.				25.				47.				69.			
4.				26.				48.				70.			
5.				27.				49.				71.			
6.				28.				50.				72.			
7.				29.				51.				73.			
8.				30.				52.				74.			
9.				31.				53.				75.			
10.				32.				54.				76.			
11.				33.				55.				77.			
12.				34.				56.				78.			
13.				35.				57.				79.			
14.				36.				58.				80.			
15.				37.				59.							
16.				38.				60.							
17.				39.				61.							
18.				40.				62.							
19.				41.				63.							
20.				42.				64.							
21.				43.				65.							
22.				44.				66.							

# *J.C. Matthews Chair of Higher Education* North Texas State University

## APPENDIX F

### LETTER OF INTRODUCTION

April 23, 1982

To Whom It May Concern:

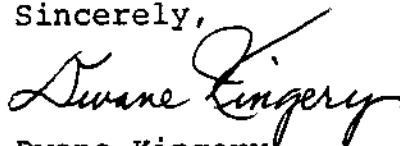
Mr. Udo Usoro is a full-time doctoral student at North Texas State University. He is majoring in College Teaching and is currently working on his dissertation.

His proposal for the dissertation has been approved in the College of Education. In order to complete his study he must travel to Nigeria to collect the data necessary.

After the collection of the data, it will be necessary for him to return to North Texas State University in order to complete requirements for the Ph.D. degree. He will need to utilize the facilities of the university to analyze and interpret the data collected and to complete the writing of the dissertation.

He is an excellent student and merits any assistance which can be given. He should complete all requirements for the degree soon.

Sincerely,



Dwane Kingery  
Professor of Education  
Major Professor

DK:kb

# APPENDIX G

## SUMMARY OF GOALS RANKED BY ALL FOUR GROUPS OF PROFESSIONAL RESPONDENTS BASED ON NEEDS INDEX (N = 300)

Goal	Needs Index	Rank Order
21	0.494	1
6	0.495	2
45	0.511	3
33	0.517	4
77	0.521	5.5
39	0.521	5.5
15	0.523	7
51	0.524	8
48	0.531	9
42	0.533	10
12	0.534	11.5
26	0.534	11.5
80	0.536	13
53	0.538	14
18	0.539	15
35	0.540	16
19	0.542	17
60	0.543	18
68	0.544	19.5
3	0.544	19.5
36	0.544	19.5
59	0.544	19.5
71	0.544	19.5
5	0.545	24
54	0.546	25
63	0.547	26.5
76	0.547	26.5
27	0.548	28.5
65	0.548	28.5
47	0.549	30
24	0.551	31
38	0.552	32.5
41	0.552	32.5

APPENDIX G--Continued

Goal	Needs Index	Rank Order
20	0.552	32.5
79	0.554	35
58	0.557	36.5
9	0.557	36.5
57	0.558	38.5
25	0.558	38.5
40	0.559	40.5
66	0.559	40.5
44	0.559	40.5
56	0.562	43
43	0.564	44
32	0.565	45
13	0.566	46.5
14	0.566	46.5
23	0.566	46.5
17	0.567	49.5
75	0.567	49.5
30	0.568	51
61	0.569	52
78	0.570	53
4	0.571	54.5
67	0.571	54.5
50	0.572	56.5
52	0.572	56.5
62	0.572	56.5
2	0.572	56.5
55	0.573	60.5
64	0.573	60.5
74	0.573	60.5
73	0.576	63.5
8	0.576	63.5
11	0.576	63.5
37	0.582	66
72	0.583	67.5
10	0.583	67.5
16	0.584	69.5
70	0.584	69.5
46	0.585	71
22	0.591	72.5
29	0.591	72.5
28	0.592	74
34	0.595	75
7	0.598	76

APPENDIX G--Continued

Goal	Needs Index	Rank Order
31	0.602	77
49	0.609	78
1	0.686	79
69	0.826	80

# APPENDIX H

## NEEDS INDEX OF GOAL STATEMENTS FOR ALL FOUR GROUPS OF PROFESSIONAL RESPONDENTS

(N = 300)

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
1	11.013	16.044	0.686	51
2	10.249	17.893	0.572	38.5
3	9.461	17.369	0.544	17.5
4	10.147	17.762	0.571	37.5
5	9.431	17.300	0.545	18
6	8.940	18.045	0.495	2
7	10.246	17.125	0.598	48
8	10.018	17.375	0.576	40.5
9	10.119	18.143	0.557	26.5
10	10.088	17.275	0.583	42.5
11	10.036	17.409	0.576	40.5
12	9.220	17.244	0.534	10.5
13	10.135	17.903	0.566	32.5
14	9.813	17.325	0.566	32.5
15	9.345	17.849	0.523	6
16	10.261	17.552	0.584	43
17	10.024	17.662	0.567	33.5
18	9.393	17.408	0.539	13
19	9.710	17.902	0.542	15
20	9.679	17.557	0.552	24.5
21	8.875	17.936	0.494	1
22	10.415	17.595	0.591	45.5
23	9.982	17.611	0.566	32.5
24	9.532	17.272	0.551	23
25	9.844	17.633	0.558	27.5
26	9.239	17.297	0.534	10.5
27	9.661	17.622	0.548	21.5
28	10.309	17.387	0.592	46
29	10.424	17.637	0.591	45.5
30	9.804	17.246	0.568	34
31	10.457	17.351	0.602	49
32	9.839	17.391	0.565	31

APPENDIX H--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
33	9.295	17.971	0.517	4
34	10.340	17.362	0.595	47
35	9.655	17.872	0.540	14
36	9.503	17.451	0.544	17.5
37	10.447	17.921	0.582	41
38	9.688	17.538	0.552	24.5
39	9.204	17.635	0.521	5.5
40	9.768	17.470	0.559	28.5
41	9.828	17.789	0.552	24.5
42	9.312	17.452	0.533	9
43	10.080	17.850	0.564	30
44	9.823	17.558	0.559	28.5
45	9.168	17.938	0.511	3
46	10.184	17.387	0.584	44.5
47	9.689	17.623	0.549	22
48	9.349	17.591	0.531	8
49	10.731	17.604	0.609	50
50	10.063	17.594	0.572	38.5
51	9.323	17.777	0.524	7
52	9.836	17.191	0.572	38.5
53	9.635	17.879	0.538	12
54	9.624	17.599	0.546	19
55	10.321	17.993	0.573	39.5
56	9.758	17.356	0.562	29
57	9.868	17.676	0.558	27.5
58	9.705	17.421	0.557	26
59	9.462	17.383	0.544	17.5
60	9.501	17.493	0.543	16
61	10.143	17.907	0.569	35
62	10.007	17.468	0.572	38.5
63	9.660	17.649	0.547	20.5
64	10.033	17.508	0.573	39.5
65	9.679	17.647	0.548	21.5
66	9.915	17.536	0.559	28.5
67	10.077	17.626	0.571	37.5
68	9.468	17.391	0.544	17.5
69	7.917	9.579	0.826	52
70	10.110	17.277	0.585	44.5
71	9.841	18.090	0.544	17.5
72	10.161	17.414	0.583	42.5
73	10.218	17.735	0.576	40.5
74	10.030	17.497	0.573	39.5



APPENDIX H--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
75	10.067	17.730	0.567	33
76	9.839	17.980	0.547	20.5
77	9.191	17.638	0.521	5
78	10.259	17.970	0.570	36
79	9.787	17.658	0.554	25
80	9.682	18.054	0.536	11

# APPENDIX I

## NEEDS INDEX OF GOAL STATEMENTS FOR OFFICIALS OF THE MINISTRY OF EDUCATION (N = 34)

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
1	2.857	4.142	0.689	65
2	2.495	4.447	0.561	41
3	1.961	4.028	0.486	18
4	2.733	4.457	0.613	58
5	2.266	4.285	0.528	31
6	1.942	4.647	0.417	2
7	2.638	4.314	0.611	57
8	2.400	4.266	0.562	42
9	2.600	4.514	0.443	7
10	2.685	4.133	0.649	64
11	2.438	4.447	0.548	40
12	1.952	4.257	0.458	10
13	2.561	4.542	0.563	43
14	2.304	4.323	0.532	33.5
15	2.133	4.609	0.462	11
16	2.571	4.276	0.601	55.5
17	2.400	4.485	0.535	34
18	2.133	4.276	0.498	21.5
19	2.447	4.504	0.543	39.5
20	2.323	4.276	0.543	39.5
21	1.990	4.660	0.427	4
22	2.580	4.247	0.607	56.5
23	2.495	4.447	0.561	41
24	2.142	4.276	0.500	22.5
25	2.533	4.485	0.564	44
26	2.323	4.304	0.539	38
27	2.076	4.466	0.464	12
28	2.647	4.219	0.627	63
29	2.731	4.476	0.529	32
30	2.123	4.238	0.500	22.5
31	2.580	4.485	0.575	48
32	2.304	4.285	0.537	36.5
33	2.047	4.514	0.453	8
34	2.676	4.323	0.619	61

APPENDIX I--Continued

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
35	2.380	4.561	0.521	27.5
36	2.019	4.247	0.475	15
37	2.742	4.438	0.617	60
38	2.333	4.352	0.536	35
39	1.876	4.342	0.432	6
40	2.647	4.304	0.615	59
41	2.200	4.504	0.488	19.5
42	2.095	4.285	0.488	19.5
43	2.657	4.485	0.592	54
44	2.438	4.257	0.572	46
45	1.914	4.542	0.421	3
46	2.628	4.238	0.620	62
47	2.257	4.457	0.506	24.5
48	1.980	4.361	0.454	9
49	2.742	4.514	0.607	56
50	2.238	4.276	0.523	28
51	1.923	4.476	0.429	5
52	2.495	4.295	0.580	51
53	2.133	4.523	0.471	14
54	2.333	4.419	0.527	30
55	2.619	4.580	0.571	45
56	2.152	4.295	0.501	23
57	2.285	4.342	0.526	29
58	2.514	4.285	0.586	53
59	2.180	4.447	0.490	20
60	2.190	4.323	0.506	24.5
61	2.580	4.457	0.582	51
62	2.142	4.295	0.498	21.5
63	2.209	4.428	0.498	21.5
64	2.590	4.304	0.601	55.5
65	2.228	4.395	0.506	24.5
66	2.238	4.295	0.521	27.5
67	2.571	4.438	0.579	50
68	2.076	4.323	0.480	17
69	1.942	1.695	1.145	66
70	2.514	4.352	0.577	49.5
71	2.190	4.571	0.479	16
72	2.342	4.400	0.532	33.5
73	2.590	4.485	0.577	49.5
74	2.257	4.438	0.508	25
75	2.495	4.343	0.574	47
76	2.409	4.485	0.537	37.5

APPENDIX I--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
77	2.019	4.333	0.465	13
78	2.552	4.542	0.561	41
79	2.285	4.419	0.517	26
80	1.885	4.601	0.409	1

# APPENDIX J

## NEEDS INDEX OF GOAL STATEMENTS FOR TEACHER EDUCATORS (N = 44)

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
1	2.727	4.136	0.659	56.5
2	2.659	4.545	0.585	16
3	2.568	4.363	0.588	18.5
4	2.818	4.522	0.623	40.5
5	2.704	4.272	0.632	45.5
6	2.409	4.545	0.530	5
7	2.750	4.159	0.661	57
8	2.613	4.227	0.618	38
9	2.613	4.454	0.586	17.5
10	2.818	4.454	0.632	45.5
11	2.795	4.340	0.644	52
12	2.545	4.227	0.602	27
13	2.681	4.386	0.611	32
14	2.727	4.272	0.638	48.5
15	2.250	4.454	0.505	2
16	2.840	4.386	0.647	54
17	2.681	4.409	0.608	30.5
18	2.477	4.431	0.559	7.5
19	2.522	4.454	0.566	9
20	2.727	4.363	0.625	41
21	2.204	4.477	0.492	1
22	2.863	4.500	0.636	47
23	2.772	4.340	0.638	48.5
24	2.681	4.363	0.614	35
25	2.659	4.340	0.612	33.5
26	2.454	4.250	0.577	12.5
27	2.568	4.363	0.588	18.5
28	2.818	4.340	0.639	49
29	2.931	4.477	0.654	55
30	2.704	3.522	0.767	59
31	2.750	4.295	0.640	50
32	2.681	4.272	0.627	43.5
33	2.431	4.590	0.529	4
34	2.545	4.181	0.608	30.5

APPENDIX J--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
35	2.545	4.340	0.586	17.5
36	2.750	4.363	0.630	44
37	2.704	4.613	0.586	17.5
38	2.545	4.409	0.577	12.5
39	2.477	4.431	0.559	7.5
40	2.704	4.318	0.626	42
41	2.704	4.409	0.613	34
42	2.659	4.340	0.612	33.5
43	2.750	4.575	0.601	26.5
44	2.681	4.477	0.598	24
45	2.522	4.430	0.581	13.5
46	2.568	4.318	0.594	21
47	2.636	4.340	0.607	29
48	2.500	4.454	0.561	8.5
49	2.886	4.227	0.682	58
50	2.863	4.431	0.646	53
51	2.636	4.522	0.581	13.5
52	2.522	4.272	0.590	20
53	2.727	4.386	0.621	39
54	2.500	4.340	0.576	11
55	2.909	4.522	0.643	51
56	2.795	4.454	0.627	43.5
57	2.704	4.590	0.589	19
58	2.613	4.318	0.605	28
59	2.636	4.272	0.617	37
60	2.318	4.477	0.517	3
61	2.613	4.477	0.583	14
62	2.636	4.227	0.623	40.5
63	2.454	4.431	0.553	6
64	2.590	4.431	0.584	15.5
65	2.590	4.340	0.596	22
66	2.681	4.454	0.601	26.5
67	2.727	4.431	0.615	36
68	2.590	4.250	0.609	31.5
69	2.000	1.886	1.060	60
70	2.477	4.068	0.608	30.5
71	2.704	4.522	0.597	23
72	2.818	4.272	0.659	56.5
73	2.659	4.431	0.600	25
74	2.636	4.386	0.601	26.5
75	2.636	4.386	0.601	26.5
76	2.681	4.590	0.584	15.5

APPENDIX J--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
77	2.522	4.431	0.579	10
78	2.954	4.659	0.634	46
79	2.636	4.386	0.601	26.5
80	2.500	4.454	0.561	8.5

# APPENDIX K

## NEEDS INDEX OF GOAL STATEMENTS FOR PRACTICING TEACHERS (N = 117)

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
1	2.871	4.384	0.654	52
2	2.743	4.401	0.623	45.5
3	2.521	4.478	0.562	6
4	2.538	4.401	0.576	11
5	2.461	4.273	0.575	10
6	2.589	4.324	0.598	27
7	2.623	4.358	0.603	30.5
8	2.564	4.324	0.592	23
9	2.495	4.470	0.558	5
10	2.615	4.247	0.615	41.5
11	2.598	4.299	0.604	31.5
12	2.547	4.290	0.593	24.5
13	2.658	2.358	0.609	36.5
14	2.606	4.230	0.616	42.5
15	2.521	4.316	0.584	17
16	2.615	4.273	0.611	38.5
17	2.649	4.239	0.624	46
18	2.666	4.290	0.621	44
19	2.418	4.444	0.544	2
20	2.295	4.418	0.564	7
21	2.564	4.299	0.596	26.5
22	2.649	4.290	0.617	43
23	2.598	4.324	0.600	28.5
24	2.504	4.222	0.593	24.5
25	2.564	4.367	0.587	20
26	2.521	4.273	0.589	21
27	2.547	4.205	0.605	32.5
28	2.521	4.299	0.586	19.5
29	2.615	4.273	0.611	38.5
30	2.683	4.957	0.541	1
31	2.598	4.307	0.603	30.5
32	2.649	4.367	0.606	33.5
33	2.641	4.367	0.604	31.5
34	2.649	4.329	0.611	38.5



APPENDIX K--Continued

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
35	2.495	4.324	0.577	12.5
36	2.470	4.341	0.568	8
37	2.469	4.341	0.610	37.5
38	2.487	4.307	0.577	12.5
39	2.410	4.333	0.556	4
40	2.241	4.290	0.615	41.5
41	2.572	4.435	0.579	13
42	2.470	4.329	0.582	15
43	2.615	4.290	0.609	36.5
44	2.469	4.324	0.570	9.5
45	2.527	4.358	0.590	22.5
46	2.606	3.273	0.609	36.5
47	2.649	4.444	0.596	26.5
48	2.487	4.247	0.585	18
49	2.692	4.393	0.612	39
50	2.615	4.299	0.608	35
51	2.529	4.427	0.570	9.5
52	2.555	4.213	0.606	33.5
53	2.717	4.470	0.607	34
54	2.615	4.282	0.610	37.5
55	2.529	4.333	0.583	16
56	2.606	4.282	0.608	35.5
57	2.615	4.333	0.603	30.5
58	2.461	4.230	0.581	14
59	2.529	4.282	0.590	22.5
60	2.376	4.282	0.554	3
61	2.598	4.256	0.610	37.5
62	2.641	4.299	0.614	40
63	2.615	4.290	0.609	36.5
64	2.589	4.273	0.605	32.5
65	2.538	4.324	0.586	19.5
66	2.632	4.170	0.631	51
67	2.632	4.316	0.609	36.5
68	2.538	4.230	0.600	28.5
69	2.858	4.675	0.611	38.5
70	2.649	4.299	0.616	42.5
71	2.683	4.350	0.616	42.5
72	2.649	4.213	0.628	49
73	2.675	4.290	0.623	45.5
74	2.726	4.350	0.626	47
75	2.760	4.384	0.629	50
76	2.632	4.376	0.601	29

APPENDIX K--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
77	2.709	4.316	0.627	48
78	2.606	4.299	0.606	33.5
79	2.572	4.324	0.594	25
80	2.709	4.470	0.606	33.5

# APPENDIX L

## NEEDS INDEX OF GOAL STATEMENTS FOR STUDENT TEACHERS (N = 105)

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
1	2.558	3.382	0.756	47
2	2.352	4.500	0.522	35.5
3	2.411	4.500	0.535	48.5
4	2.058	4.382	0.467	10
5	2.000	4.470	0.447	5
6	2.000	4.529	0.441	3
7	2.235	4.294	0.520	34
8	2.441	4.558	0.535	38.5
9	2.411	4.705	0.512	30.5
10	1.970	4.441	0.443	4
11	2.205	4.323	0.510	29
12	2.176	4.470	0.486	19.5
13	2.235	4.617	0.484	18.5
14	2.176	4.500	0.483	17.5
15	2.441	4.470	0.546	43
16	2.235	4.617	0.484	18.5
17	2.294	4.529	0.506	27.5
18	2.117	4.411	0.479	15
19	2.323	4.500	0.516	32
20	2.352	4.500	0.522	35.5
21	2.117	4.500	0.470	11.5
22	2.323	4.558	0.509	28.5
23	2.117	4.500	0.470	11.5
24	2.205	4.411	0.499	25
25	2.088	4.441	0.470	11.5
26	1.941	4.470	0.434	2
27	2.470	4.588	0.538	29
28	2.323	4.529	0.512	30.5
29	2.147	4.411	0.486	19.5
30	2.294	4.529	0.506	27.5
31	2.529	4.264	0.593	46.5
32	2.205	4.467	0.474	13
33	2.176	4.500	0.483	17.5
34	2.470	4.529	0.545	42

APPENDIX L--Continued

Goal	Is Mean	Should Be Mean	Needs Index	Rank Order
35	2.235	4.647	0.480	16.5
36	2.264	4.500	0.503	26.5
37	2.352	4.529	0.519	33.5
38	2.323	4.470	0.519	33.5
39	2.441	4.529	0.538	39.5
40	2.176	4.558	0.477	14.5
41	2.352	4.441	0.529	37.5
42	2.088	4.588	0.455	6
43	2.058	4.500	0.457	7.5
44	2.235	4.500	0.496	24.5
45	2.205	4.529	0.486	19.5
46	2.382	4.558	0.522	35.5
47	2.147	4.382	0.489	21
48	2.382	4.529	0.525	36
49	2.411	4.470	0.539	40
50	2.352	4.588	0.512	30.5
51	2.235	4.352	0.513	31.5
52	2.264	4.411	0.513	31.5
53	2.058	4.500	0.457	7.5
54	2.176	4.558	0.477	14.5
55	2.264	4.558	0.496	24.5
56	2.205	4.325	0.506	27.5
57	2.264	4.411	0.513	31.5
58	2.117	4.558	0.461	8
59	2.117	4.382	0.483	17.5
60	2.617	4.411	0.593	46.5
61	2.352	4.617	0.509	28.5
62	2.588	4.647	0.557	44.5
63	2.382	4.500	0.529	37.5
64	2.264	4.500	0.503	26.5
65	2.323	4.588	0.506	27.5
66	2.264	4.617	0.490	22
67	2.147	4.441	0.483	17.5
68	2.264	4.588	0.493	23.5
69	1.117	1.323	0.844	48
70	2.470	4.558	0.541	41
71	2.264	4.647	0.487	20
72	2.352	4.529	0.519	33.5
73	2.294	4.529	0.506	27.5
74	2.411	4.323	0.557	44.5
75	2.176	4.617	0.471	12
76	2.117	4.529	0.466	9

APPENDIX L--Continued

Goal	<u>Is</u> Mean	<u>Should Be</u> Mean	Needs Index	Rank Order
77	1.941	4.558	0.425	1
78	2.147	4.470	0.480	16.5
79	2.294	4.529	0.506	27.5
80	2.588	4.529	0.571	45

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