A FOLLOW-UP STUDY OF STUDENTS OF ADVANCED TEACHERS' COLLEGE, KANO (NORTHERN REGION, NIGERIA)

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The purposes which were established for Advanced Teachers' College, Kano[2] at the time at which this new institution was planned were (1) the preparation of teachers for employment in primary schools through a five-year teacher education program designated as the Grade II program; (2) the preparation of teachers for employment in secondary schools and Grade II teachers' colleges (primary teacher preparatory institutions) through a three-year education program designated as the Nigeria Certificate in Education (NCE) program; (3) the provision of in-service activities which would improve the teaching proficiency of practicing teachers; (4) the establishment of a new college plant and the development of a curriculum which would offer a model of a teacher education facility utilizing modern teaching techniques and equipment; and (5) the development of Nigerian administrative and instructional staff for the college.

I. THE PROBLEM

From the beginning of the ATCK project there was concern with maintaining lines of communication with the students after they had left the school. The school administrators and faculty were concerned with the degree

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John W. Hanson and Cole S. Brembeck, Education and the Development of Nations (New York: Holt, Rinehart and Winston, Inc., 1966), pp. 369-370.

[2]Advanced Teachers' College, Kano is hereinafter designated as ATCK.

to which they were being successful in educating students who would remain in educational work and who would be effective in their school positions. The ATCK educators were also interested in assessing how comprehensive and satisfactory former students who were presently teaching judged their college background to have been. It was considered that knowing the views of former students concerning their college program would be helpful in the planning and revising of all curriculum areas. It was also a concern of ATCK personnel to determine in what areas former students considered their education to have been inadequate for their subsequent professional employment. This information was considered to be of assistance in planning for the initiation of new courses at the college.

In terms of planning for in-service education activities which would be utilized by former students, as well as by other practicing teachers, administrators of the Kano Project were interested in learning the kinds of in-service assistance which their former students judged would be helpful to them.

Both the administrators of ATCK and USAID officials were interested in determining how many of the NCE graduates of the college were engaged in teacher education, i. e., how many were teaching in Grade II teachers' colleges, how many were teaching in secondary schools, and how many were engaged in other educational pursuits. They were equally concerned with determining how many of the former students

were engaged in educational work and how many were engaged in business or other pursuits.

The administrators and staff were concerned with how effectively the college education program was operating in this new institution--in terms of producing teachers who were of the opinion that their education had adequately prepared them for the positions in which they were employed and who remained in the profession--in comparison with that of other teachers' colleges offering similar educational programs.

No research existed concerning the post-graduation activities or attitudes of students from Northern Nigerian teacher education institutions. In order to make some judgment of the comparative effectiveness of the ATCK program, it was judged advisable as part of the follow-up study of ATCK students to survey a selected group of graduates of similar teacher education programs at other colleges. Such a comparison was expected to indicate whether or not the activities and attitudes of former ATCK students were similar to or different from the activities and attitudes of graduates of educational programs of the same kind at other schools in the area. If the responses showed no significant differences, any findings from the survey should be generalizable to the graduates of those educational programs throughout the six states of Northern Nigeria and any observations or recommendations made concerning ATCK would then be equally valid for other

institutions with similar programs in the six Northern states.

A comparison of the responses received from former ATCK graduates with those of graduates of similar institutions was held to be helpful also in that at the time this study was conducted, ATCK was unique in two aspects of its operation: (1) It was the only teachers' college in Northern Nigeria which operated both a Grade II and NCE program on the same campus, utilizing the same facilities and staff for both programs. (2) It was unique also in operating as a day school, with neither dormitory nor cafeteria facilities. All other Grade II teachers' colleges in the six Northern states of Nigeria were operated as boarding schools. The only other advanced teachers' college located in the six states of the former Northern Region of Nigeria--Advanced Teachers' College, Zaria--also was operated primarily as a boarding institution.

The student population of ATCK and of the other educational institutions surveyed utilized the same admission standards and procedures and enrolled students from the same geographic areas. Curriculum and examinations were uniformly prescribed for all these institutions. The length of school sessions was the same.

If significant differences were obtained between the responses of the comparison groups and the responses of the ATCK groups, it might be concluded that these differences were related to the operation of dual programs

on the same campus and/or to the operation of the school on a day school basis. These differences would, of course, warrant further investigation; however, such investigation was not planned to be undertaken as a part of this follow-up study.

If no significant differences were obtained between the responses of the ATCK groups and the responses of the comparison groups, it might be concluded that the operation of dual programs in a day school setting had no influence on the student performance, attitudes, and post-graduate activities of the ATCK students who were considered in this study. It was judged that this investigation could be of value for whatever information it might produce which would stimulate further investigation of these factors.

Accordingly, to provide information in these areas of concern, the following four hypotheses were formulated to be tested as a part of this follow-up study.

Hypothesis I. There is no significant difference between the responses of the Grade II educated teachers and the responses of the NCE educated teachers in each of the following areas:

A. General satisfaction with the teaching profession

B. General dissatisfaction with the teaching profession

C. Factors associated with their leaving teaching

D. The factor which caused greatest personal difficulty during their college education program

E. The rating they assign to themselves for the quality

of their teaching performance

F. The kinds of in-service help they desire

Hypothesis II. There is no significant difference between the responses of the Grade II teachers educated at ATCK and the responses of the Grade II teachers educated at the other Grade II Teachers' College in each of the following areas:

A. General satisfaction with the teaching profession

B. General dissatisfaction with the teaching profession

C. Factors associated with their leaving teaching

D. The factor which caused greatest personal difficulty during their college education program

E. The rating they assign to themselves for the quality of their teaching performance

F. The kinds of in-service help they desire

Hypothesis III. There is no significant difference between the responses of the NCE teachers educated at ATCK and the responses of the NCE teachers educated at another Advanced Teachers' College in each of the following areas:

A. General satisfaction with the teaching profession

B. General dissatisfaction with teaching profession

C. Factors associated with their leaving teaching

D. The factor which caused greatest personal difficulty during their college education program

E. The rating they assign to themselves for the quality of their teaching performance

F. The kinds of in-service help they desire

G. The evaluation of their practice teaching experience

Hypothesis IV. There is no significant difference between the self-assigned ratings of the ATCK NCE students for their teaching performance and the ratings assigned for their present teaching performance by the principals of the institutions in which they are employed.

It was, then, the purpose of this study to conduct a follow-up study to test the hypotheses stated, to determine the attitudes of these former ATCK students toward various aspects of their teacher education program at the college, and to determine the holding power of the profession during the initial period of teaching of these former students.

II. PURPOSES OF THE STUDY

The specific purposes of this study were (1) To determine how many of the former students of ATCK were employed in education, in what states they were employed, and in what kinds of educational institutions they were employed; (2) To determine the present employment of those students who were not teaching, their reasons for leaving teaching, and their satisfaction with their present jobs compared to teaching; (3) To determine what further schooling, or other professional improvement, the students who were engaged in teaching had undertaken or completed; (4) To determine what kinds of in-service assistance these teachers had utilized and what kinds of assistance they desired to have provided; (5) To determine the judgment of

these teachers about the effectiveness of their college educational program, to indicate their judgment of the difficulties encountered during their college program, and to determine their future educational desires; (6) To compare these teachers' ratings of their present teaching performance with the ratings made by the principals of the institutions in which they were employed; (7) To survey those students who had enrolled in one of the two educational programs at ATCK, but who did not complete the program, in order to determine their reasons for leaving the college; (8) To determine whether survey findings based on responses of ATCK students were similar to those obtained from students at the same level of teacher education or whether the findings were different and could not be generalized to students of similar institutions; and (9) To determine whether significant differences existed between the attitudes and needs of teachers educated in the two teacher education programs operated at the college.

III. DEFINITIONS OF TERMS USED

Post-Primary students. Those students who had completed the seven-year primary school program and had then enrolled in the five-year teacher education program designated as the Post-Primary Program are herein described as Post-Primary students. At the completion of this five-year program the students took the Grade II (Higher Elementary) Teacher Examination. Grade II certification

qualified these teachers to teach in primary (elementary) schools.

NCE students. Those students who had completed either a secondary school or a Grade II teacher education course, or both, and had then enrolled in the three-year course leading to the Nigeria Certificate in Education (NCE) are herein described as NCE students. At the completion of this three-year course the students took a comprehensive examination for the Nigeria Certificate in Education. The NCE certification qualified these teachers to teach in either the first four years of secondary school or in Grade II teachers' colleges.

IV. IMPORTANCE OF THE STUDY

This study was judged to be of primary importance as a record of the development of ATCK and of Ohio University-USAID participation in that development. The findings of this study were held to be potentially helpful in assessing what the teacher education programs at ATCK had accomplished in their initial years of operation, and in assessing how students viewed their experiences in these programs. It was expected, then, that this study would provide some helpful information relevant to the particular purposes of the study which have been enumerated in this chapter.

V. DELIMITATIONS

This study was confined to the examination of two groups of students from ATCK and of two comparison groups of students of similar educational background from two nearby colleges. Geographically, the Grade II students, from both ATCK and from the comparison group in a neighboring Grade II college, were residents of Kano State. The NCE students, from both ATCK and from the comparison group in another Advanced Teachers' College, included residents of all the six states of Northern Nigeria. Conclusions drawn or recommendations made concerning the ATCK Post-Primary group were accordingly not intended to be applicable to a wider population. Conclusions and recommendations with respect to the NCE groups were expected to have some applicability to other NCE groups in the country.

The description of the curriculum, facilities and activities at ATCK applied only to the time period from the establishment of the school through the period of this study--from August, 1961 until August, 1969. Likewise, questionnaire responses reflected only the conditions and attitudes of the respondents during the period January-June, 1969.

Investigation of the relative merits of day school and boarding school operation of an educational institution was not planned as a basic part of this study; however, it was expected that the study would give at least some

indication of whether the results from the two kinds of operation were somewhat alike or were somewhat different.

VI. LIMITATIONS

The questionnaire constructed was for the purpose of securing the information required for this study. It was not proposed that it would have applicability for wider use. The questionnaire used was assumed to have face validity. It was not feasible to test the reliability of the questionnaire responses in this situation.

It was not possible at the time the study was conducted to investigate either attitudes or results related to some of the more innovative instructional procedures and devices which had been introduced at ATCK. For example, the groups surveyed had had either minimal experience or none at all with educational television, language laboratory work, and the facilities of the material development center.

The group of NCE students from the other Advanced Teachers' College represented its third graduating class, while the NCE students from ATCK represented its first graduating class. The same condition existed with respect to the Post-Primary groups; the ATCK Post-Primary group represented the initial enrollees in the program, while the group from the other Grade II college represented enrollees in a program which had been in operation for a period of years. Whether the difference in length of operating time of the programs resulted in differences in responses was

not to be dealt with in this study.

The degree to which the answers of the respondents were influenced by their desire to supply the responses which they viewed as being most acceptable to the administration of ATCK was unknown. Judged on the basis of the number of persons who indicated a desire for further training--either as a Grade II student, as an NCE student, or as a student at an institution in the United States for a degree--it was judged that this factor of concern with answers acceptable to the administration should have been a prominent one in dictating the total responses of these persons. However, while the desire for further training was a rather general response, criticism of aspects of the existing programs was just as general a response from the same persons.

VII. ORGANIZATION OF THE PAPER

This chapter has presented the background and setting from which this investigation arose. It has described the founding and purposes of ATCK in relation to Nigerian and to West African educational needs. Within the chapter, a statement of the problem has been given, the hypotheses have been stated, and the general purposes and the importance of the study have been treated. Terms used have been defined and the delimitations and limitations of the study have been discussed.

There being no body of literature treating follow-up

studies of teachers in Nigeria, Chapter II treats the history and development of ATCK in the setting of general educational development in West Africa, in Nigeria, in the Northern Region of Nigeria, and in relation to USAID-Ohio University involvement in the development of educational projects. This information was judged to be the relevant background to this follow-up study of ATCK students.

Chapter III treats the development and trial administration of the questionnaire used in the study, describes the groups which comprised the study respondents, and describes procedures of data collection and processing.

Chapter IV, treating the findings of the study, is divided into three sections: The first section reports the responses of the two groups of Post-Primary students included in the study, describes the Post-Primary teacher education program at ATCK, and summarizes the findings related to the two groups of Post-Primary students. The second section of the chapter describes the NCE program at ATCK, reports the responses of the two groups of NCE students included in the study, and summarizes the findings for these groups. The final section of the chapter presents analyses related to the hypotheses which have been stated.

Chapter V, treating the study as a whole, is divided into three sections: The first section summarizes the problem and purposes of the study, the review of the literature, procedures of the study, responses of the

subjects, findings related to the hypotheses, and other findings. The second section of the chapter presents the conclusions of the study. The final section of the chapter presents general recommendations and recommendations for further study.

CHAPTER II

WEST AFRICAN EDUCATIONAL BACKGROUNDS AND THE DEVELOPMENT OF ATCK

The first section of this chapter is concerned with the historical background, the development, and the problems of education in West Africa, in Nigeria, and in the Northern Region of Nigeria. The second section of the chapter treats the development of ATCK and its relationship to USAID-Ohio University involvement in Nigerian education.

I. WEST AFRICAN EDUCATIONAL BACKGROUNDS

The new nations of Africa, in the relatively short period of their independent statehood, have made far-reaching commitments for the expansion of their educational systems. They have demonstrated their faith in the power of education both in words and in acts. The attitude of these nations toward education, as stated by Burns in the following passage, is representative of the observations made by other Western educators about the attitude toward education of developing African nations.

> In all parts of Africa today, education is in the front line, so to speak, of national planning, for the future of every independent country depends more than anything else on the rapid and effective development of its system of education.

> Hopes of achieving higher standards of living and even of establishing independence in a viable form seem to depend almost directly upon the ability of each country to train the men and women it requires for service at all levels in the administration. Education has accordingly become a major concern of every independent country in Africa, and the expenditure which each now incurs on this account is some indication of the importance which it assumes in national planning. Many Commonwealth countries in Africa spend nearly one-fifth of their total income on education, and in all of them expenditure on education is tending to rise rapidly.[1]

African educational efforts have been most strikingly seen in the increase in numbers of primary school students. In many countries universal primary education is both a national policy and a popular slogan. In few areas is this stated goal nearing realization; however, statistics which are accurate enough to indicate the actual degree of progress are available neither for the new nations of Africa in general nor for particular countries.[2]

Large scale efforts to expand and improve the quantity and the quality of education in an economic setting which possesses limited resources and unlimited demands for expansion in all sectors have led to major problems. In addition, the newly independent African countries have been faced with problems which were largely an inheritance from their colonial periods.

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[1]Donald G. Burns, African Education (London: Oxford University Press, 1965), p. 1.

[2]John W. Masland, Educational Development in Africa: The Role of United States Assistance (New York: Education and World Affairs, 1967), p. 18.

In the decades following World War II, when African nations began achieving independent status, the pattern of the educational systems in the former British and French territories was already long established. Most Africans who were educated at the post-secondary level were educated in Europe--usually in England or in France. Those who received primary and secondary school education within their native lands were educated in schools modeled on the primary and secondary schools of England or France as those schools had been at a somewhat earlier period.

Since for purposes of colonial administration and commercial activity it had been necessary to educate only a limited number of Africans for the specific posts for which they were needed, the colonial pattern of education emphasized high standards, academic rather than vocational orientation, and a reliance upon expatriate teachers. This policy, appropriate for the purposes of colonial administration, was held to be not appropriate to the demands of developing independent nations with a commitment to the education of a large proportion of the population. Further, the standards set in colonial schools were difficult to maintain for large numbers of students without very high costs; however, African educational authorities have been loath to change any aspects of their educational structure which might alter or endanger established

It was not until the last quarter of the eighteenth century that Western education made any significant impact upon Nigeria. This influence was closely related to the missionary movement and the rise of evangelicalism in Northern Europe and also to the commercial and political drive for settlement in the interior regions of Africa.[6]

The initial missionary effort in Nigeria was in the Western region, where a mission and school were established at Badagry in 1842, at Abeokuta in 1846, and at Lagos and at Ibadan in 1849. Missions in the Western region were soon followed by missions in the Niger Delta and in the Eastern region.[7]

Until 1877 neither the colonial government in Africa nor the imperial government in England made any financial provision for educational work in the colony of Nigeria. The first non-mission school in the country was founded in 1901, when the government established a school for Moslem children in Lagos.[8]

In Northern Nigeria missionary education was extremely limited due in part to an agreement between the British government and the emirs (the traditional political and religious rulers) following the extension of British control to the North in 1903, at which time it was agreed

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[6]L. J. Lewis, Society, Schools and Progress in Nigeria (London: Pergamon Press), pp. 23-24.

[7]Ibid., pp. 24-26. [8]Ibid., p. 28.

standards.[3,4]

The colonial educational pattern was uneven in distribution within all the countries involved. For a number of reasons, including limitations of finance and personnel, educational facilities were established in those areas of highest population density and where missionary schools were already in operation. As a result the interior Moslem areas, where little or no missionary activity existed, lagged far behind the coastal regions in educational development. The original unevenness of school distribution has had long lasting effects and "has brought about serious problems for countries such as Nigeria, where the northern Moslems resented the rapid economic progress of the south."[5]

In African countries generally, and in Nigeria particularly, missionary education antedated and was more widespread than was education supported by the colonial governments. Early efforts to introduce Western education were limited to a few trading centers and had little or no impact on people living in the interior of the country.

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[3] Ibid., p. 12.

[4] Thomas Balogh, "The Problem of Education in Africa," The Centennial Review of Arts and Science, VI:4, 1962, pp. 533-541 cited in John W. Hanson and Cole S. Brembeck, Education and the Development of Nations (New York: Holt, Rinehart and Winston, Inc., 1966), pp. 162-164.

[5] Masland, op. cit., p. 11.

that Christian missionaries were not to be admitted to emirates without the consent of the emirs. The British government from 1909 forward made provision for some Western education in the Northern region, which was administered through the Native Administration (Local Education Authority). Antagonism toward Western education existed in the North, perhaps because it was seen as posing a threat to the system of Koranic schools, and so the introduction of Western schools progressed only very slowly.[9]

The efforts of new African countries to spread limited resources over an ever-expanding clientele has caused quality to lag behind quantity--and quantity in the North has been very limited also--in spite of the concern of African educators with the maintenance of standards. Unavailability of trained teachers has led to the recruitment of under-trained or even untrained teachers. Not only has the quality of primary education deteriorated, but students have reached the secondary school level poorly prepared for secondary school subjects or unable to pass the secondary school entrance examinations.[10]

Perhaps the most serious problem arising from the attempt to expand the base of primary school education, if this problem can be correctly associated with the school,

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[9] Ibid, pp. 27-29.

[10] Burns, op. cit., pp. 46-47, 145.

has been the rising number of unemployed and discontented primary school leavers who were unable to secure employment in urban areas and who were said to be unwilling to return to the agricultural pursuits of their families.[11, 12, 13]

Foster and Balough, in their writings on the subject, represented the two differing attitudes which are common in relation to the causes of and remedies for the problem of the unemployed school leaver, either primary or secondary, in West Africa. Balough argued that in this part of the world, where between 80 and 90 per cent of the population depend upon agriculture for a livelihood, educational plans must give adequate attention to the improvement of agriculture production. He stated that the generalized liberal arts education provided in the colonial period was effective in the context of that period and for the purpose of colonial administration; however, this pattern was incorporated and perpetuated in the African social structure of the newly independent countries.

Balough took the position that educational activities must be restructured to give highest priority to

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[11]Masland, op. cit., p. 18.

[12]Philip J. Foster, "The Vocational School Fallacy in Development Planning," Education and Economic Development (Chicago: Aldine Publishing Company, 1965) cited in John W. Hanson and Cole S. Brembeck, Education and the Development of Nations (New York: Holt, Rinehart and Winston, Inc., 1966), pp. 169-172.

[13]Balough, op. cit., pp. 161-164.

general education and training for rural advance. The administrative hierarchy, he said, must be made to fit into the reorganization in such a way that technical and vocational workers achieve status. Primary education, as seen by Balogh, has as a major purpose the creation of status and prestige for agricultural work and the development of agricultural skills on the part of primary school students. The primary school would act as a center for the improvement of rural life through improved agricultural procedures.[14]

Foster took the position that African demand for education was and is oriented toward the provision of "academic" type schools. He stated that this preference arises from a realistic appraisal of the structure of occupational opportunities in the economy which have resulted as a consequence of European colonial rule.[15]

In Foster's view, those who criticize the demand for academic, as opposed to vocational, education fail to recognize that the strength of academic education rests on the fact that it is the education which provides access to those vocations which are the most prestigious and highest paid occupations within the economies of West African countries. The financial rewards and the number of

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[14] Ibid., pp. 165-167.

[15] Foster, op. cit., p. 169.

employment opportunities for technically trained persons never were and currently are not as great as are those in the clerical fields. Thus, the product of the academic school was and is more advantageously placed.[16]

While agreeing that unemployment among school leavers in West Africa has reached alarming proportions, Foster disagreed with the frequently voiced contention that school leavers are unwilling to work in manual occupations, which he said is not supported by his own research among school leavers in Ghana.[17]

Rather than supporting the position that the curriculum of the primary and secondary schools produces discontented unemployed school leavers, Foster stated that the cause of mass unemployment among school leavers in many developing African nations is a result of dysfunctions existing between the rate at which school leavers are becoming available for employment and the rate at which occupational opportunities of all types are expanding within the exchange sector.

Foster recommended that the only real contribution which the school can make to this problem of imbalance between education and employment is to improve the quality of basic academic education, especially in general science and English, offered at both the primary and secondary

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[16] Ibid., p. 170.

[17] Ibid., pp. 170-171.

levels to provide the basis upon which later effective specialist training can be given.

He supported this position by noting that at the high level of technical training there is less a shortage of applicants for training than there is shortage of applicants who can successfully complete these rigorous high level courses.[18]

At higher levels of education, an equally serious problem exists in terms of the imbalance between the number of people with high-level skills and the number of jobs available requiring these skills. Masland, in discussing the manpower situation in the developing African countries, said of this paradox:

> When measured in absolute terms, there are acute shortages of skilled individuals in almost all high-level fields. When measured in terms of the capacity to provide employment opportunities for the society at a given level of development, the picture may be quite different. . . . Certain job categories, while qualitatively of critical importance, offer only limited employment opportunities quantitatively. It is for these reasons that it is so important to relate educational plans to overall national development.
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> . . . there is a fairly common pattern of human resource development throughout Africa, in which several general characteristics can be seen. In the first place, while all countries continue to experience shortages of high-level personnel in almost all categories, the fact that a few areas, such as southern Nigeria, are beginning to bring supply up to demand, suggests that other countries may reach this condition in another decade or less. Secondly, the most critical shortage in numbers, and perhaps in terms of the balanced operation of the economy, generally occurs

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[18] Ibid., pp. 172-174.

> at the middle or intermediate level--the office managers, foremen, technicians, teachers. Thirdly, despite efforts to Africanize both commercial and industrial organizations and government agencies, the rapid growth of certain sectors, and of the educational systems, has created a need for skilled expatriate personnel in specific categories, among them teaching.[19]

The lack of trained manpower in middle-level occupations in the developing countries has presented a major problem in the expansion of educational programs. In assessing priorities in African education, Burns said:

> The greatest obstacle to the expansion of education in all African countries today is the shortage of teachers and a further problem which is associated with this is the decline in standards of teaching in some countries in recent years.[20]

Burn's assessment of the situation is shared by other authorities, among them Masland,[21] who cited the shortage of teachers in the sciences as being particularly severe.

Two other facets of the problem of teacher supply warrant consideration: these are the status of teachers and the loss of teachers to other occupations. Jones summarized the present condition of teachers and some of the causes of this condition as follows:

> The status of the teaching profession in Africa is low. Recruitment has been haphazard, while training has been inadequate. The teacher often does not get a salary which keeps him contented or enables him to

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[19]Masland, op. cit., pp. 14-15.

[20]Burns, op. cit., p. 145.

[21]Masland, op. cit., p. 43.

> maintain a standard of life comparable to that of others having the same qualification. He often has to work in conditions which would daunt the bravest of spirits. . . . Their cumulative effect is to depress the public image of the teacher and to assign the profession a lower status than it once enjoyed. This decline in prestige is not absolute; it is relative: the emergence of newer groups in society, hitherto inarticulate, unorganized and uninfluential, has deprived teachers of the primacy they once enjoyed.[22]

The reasons for teachers' leaving the profession have been related to the reasons which led many of these teachers to enter the profession. In Africa, where means of achieving higher education were extremely limited, many young people entered teaching as an avenue to higher education. As secondary education became more widespread, teaching was no longer the only route available to many aspirants to higher education; it was, in fact, no longer a direct or certain route. Secondary education became the first choice of the student who hoped to continue his education at the university level. Those who were unable to avail themselves of secondary education often elected teacher education as a second choice. These people, whose commitment was to their own education rather than to education as a profession, moved to other occupations when these were available. Burns pointed out the wastage resulting from teachers moving to other occupations:

> In Ghana nearly 3000 teachers resigned from their appointments during the years 1956-60 to take up posts

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[22] S. H. M. Jones, Field Report on the Survey of the Status of the Teaching Profession in Africa (Washington, D. C.: World Confederation of Organizations of the Teaching Profession, 1962), p. 1.

> in other professions and the average wastage from the teaching profession was 8.7 per cent, by far the highest rate of wastage in any category of employment in the country.[23]

The amount of educational aid that could be used in the developing nations is incalculable because of the multiplicity of educational problems and needs existing in these countries. The realization that direct investment capital is not the only necessity for economic development has brought about increased willingness on the part of Western nations to assist education in the emerging nations.

Both prior to and during the first years of independence, British aid in Africa emphasized overall educational planning by supporting new capital projects. In more recent years about two-thirds of British educational assistance has been in the form of teaching and administrative personnel. Personnel is supplied through the Overseas Development Ministry, the British Council, and private sources.[24]

United States policy was originally planned to supplement, rather than supplant, assistance from the former European colonial powers. Thus, United States aid to African nations has been less than that of the European colonial nations. In recent years, aid from both public and private United States sources has increased and

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[23]Burns, op. cit., p. 151.

[24]Masland, op. cit., p. 16.

education in Africa has received a proportionately larger share of aid than have other developing countries. American aid has been directed toward "institution building" with the aim of stimulating the capability of sustaining an indigenous educational structure.

The United States Agency for International Development (USAID) represents the largest Unites States program for educational development assistance in Africa. The USAID program has concentrated on countries with the most favorable developmental potentials and within these countries has concentrated on encouraging indigenous educational capabilities. A large proportion of USAID support for education in Africa is carried out through contracts with United States universities which are, in turn, responsible for the actual operation of the projects.[25]

The United States government also provides aid through the Peace Corps, United States Information Service, and the exchange program of the Department of State. Private foundations--particularly the Ford Foundation, Rockefeller Foundation, and the Carnegie Corporation--have made major contributions to the development of educational facilities and educational activities.

Multilateral agencies--particularly the World Bank

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[25] Ibid., p. 17.

and the International Development Agency--and planning and technical assistance from UNESCO and the United Nations Development Program, have contributed to educational development in the new African nations. In general, officials of foreign aid agencies have been reluctant to underwrite the constantly expanding cost of developing primary school education in Africa. United States government and private contributors have concluded that their limited resources can be applied with greater effect at higher levels in the educational structure.[26]

United States assistance to African secondary education has been significant. It has focused primarily on the problem of teacher supply, and has encouraged curricular development projects.[27]

In Northern Nigeria, where even primary school facilities have been extremely limited, USAID and the Ford Foundation are supporting a substantial teaching training program.[28]

Educational development in Nigeria has been subject to the problems described for the newly independent nations of West Africa. However, Nigeria's position has been, comparatively, a very favorable one. Possessed of the largest population in Africa and well endowed with natural resources, it has been regarded as a prime prospect for

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[26] Ibid, p. 19.

[27] Ibid., p. 21.

[28] Ibid., p. 19.

developmental aid by various agencies, both national and multinational.[29]

Furthermore, Nigeria is one of the few African countries which has been able to carry out educational planning within the framework of an adequate manpower analysis. This manpower analysis was made by Harbison as a part of the work of the Ashby Commission. In 1959 the Federal Government of Nigeria established a commission to recommend a pattern of education which would be in keeping with the country's aspirations over the first twenty years of nationhood (1960-1980). This commission of nine was composed of three Nigerians, three British, and three Americans, under the chairmanship of Sir Eric Ashby.[30]

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[29]Commission on Post-School Certificate and Higher Education in Nigeria, Investment in Education (Lagos: Federal Government Printer), pp. 35-36. [The Ashby Report]

[30]The names and positions of the members of the Ashby Commission are: Sir Eric Ashby, Chairman, Master of Clare College, Cambridge University; formerly President and Vice-Chancellor, the Queen's University of Belfast; K. O. Dike, Principal of University College, Ibadan; formerly Professor of History, University College, Ibadan; R. G. Gustavson, Professor of Chemistry, University of Arizona; formerly Chancellor, University of Nebraska, and President, Fund for the Resources of the Future, Inc.; H. W. Hannah, Associate Dean of Agriculture and Professor of Agricultural Law, University of Illinois; Senator Shettima Kashim, C. B. E., Waziri of Bornu; F. Keppel, Dean of the Graduate School of Education, Harvard University; J. F. Lockwood, Master of Birkbeck College, and formerly Vice-Chancellor, University of London; S. D. Onabamiro, Senior Research Fellow, University College, Ibadan, and after August, 1960 Minister of Education, Western Region of Nigeria; G. E. Watts, Principal, Brighton Technical College. M. K. S. Flannagan, Federal Ministry of Education of Nigeria served as secretary of the Commission.

The Ashby Commission Report, Investment in Education, has had major influence on educational directions in Nigeria, both in terms of the activities of indigenous agencies and in terms of aid provided from external sources.

The educational problems of Northern Nigeria were described in the Ashby Report as not unlike those of the other regions of the country, nor were these problems unlike those described for the developing African countries generally. The problems in the Northern Region were simply greater in magnitude, since this interior area of the country had suffered to a greater degree from uneven distribution of schools during the colonial period and from the fact that missionary schools had been prohibited in most areas of the Northern Region.

Regionalization of government in Nigeria in 1954 led to a large scale effort in the Eastern and Western Regions of the country toward universal primary education, which was largely accomplished in the Western Region. It led to a demand for more primary school teachers and to the opening of a large number of teacher training institutions in these regions.[31]

While the Northern Region did not embark on a scheme for primary education comparable with that of the

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[31]For an account of Ohio University-USAID involvement in teacher education in the Western Region of Nigeria see John O. A. Herrington and William H. Cooper, "Ohio University Trains Nigerian Teachers," Oversea Education, XXXIII, No. 3, October, 1961.

other regions, there was keen awareness on the part of educational leaders of the need for educational expansion at all levels.[32,33]

II. THE DEVELOPMENT OF ATCK

Prior to the opening of Kano Men's Training College in 1961, officials of the Northern Regional Ministry of Education and USAID officials had been conferring about the possibility of the development of a cooperative project for teacher education through the establishment of a teacher training institution in Kano which would involve the assistance of an American university team under contract with USAID.

In November 1961 two members of the Ohio University College of Education faculty went to Nigeria "to participate in a study to develop syllabus, staff needs, and make recommendations regarding physical plant for development of the teacher training institution in Northern Nigeria."[34]

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[32]The goal recommended by the Ashby Report for the Northern Region was 25 per cent of the age group enrolled in primary school by 1970.

[33]B. A. W. Trevallion, Editor. Metropolitan Kano Report on the Twenty Year Development Plan 1963-1983. (London: Pergamon Press, 1963).

"The Ministry of Education envisages that by 1970 about 25 per cent of the eligible school-going population will attend primary schools throughout Northern Nigeria." p. 74.

[34]William H. Cooper and Russell A. Milliken, "Northern Region Teacher-Education Project: A Survey Report," Ohio University-USAID (Mimeographed, 20 pp.), p. 2.

This survey report indicated the feasibility of the establishment of a teacher training institution in Kano and recommended the site on which Advanced Teachers' College was later constructed.

The Northern Regional Ministry of Education and Ohio University-USAID were guided in their planning for this institution by the recommendations for teacher education contained in the Ashby Report. Although this report was primarily concerned with post-school certificate and higher education, teacher education was an important feature of the report. The major proposals of the Ashby Report, Investment in Education, with respect to provision and training of teachers in Nigeria, may be summarized as follows:

1. Remedial education should be provided for most of the 80,000 primary school teachers, lasting a month and using university buildings during vacations.

2. A teacher guidance service of ultimately about one thousand experienced traveling teachers should be created to maintain primary school teaching standards.

3. Specialized two-month vacation courses should be organized annually for secondary school teachers in School Certificate and Higher School Certificate subjects.

4. In-service training should be continued and developed by short courses or evening classes.

5. A university degree course should be designed specifically for intending teachers and should include teacher training.

6. A new structure should be devised for the training of Grade I teachers whereby there would be three channels of approach to this level of qualification

(a) through Advanced Teachers' Colleges

(b) through departments of teacher training in technical institutions

(c) through additional Sixth Form streams which would combine Higher School Certificate work with some teacher training.

7. The salaries of Grade I teachers should be upgraded so that they overlap with those of graduates.

8. A program of recruitment of teachers from abroad should be initiated which should be linked to a scheme for sending Nigerians to other countries for university education and preparation for teaching.[35]

In September 1962 a contract was signed between Ohio University and USAID to work on the developmental phases of the establishment of a multipurpose institution in Kano which would serve the needs of the entire North.

The central purpose of the Ohio University-USAID Project in Kano was the establishment of a multipurpose educational institution located in a completely new physical plant. It was to be equipped with the most modern educational media, including a closed circuit television system and a language laboratory. It was to be capable of providing in-service activities for graduates of the school and for practicing teachers in the area. It was also to make the necessary provisions for a counterpart and participant education program which would result in a Nigerian staff fully qualified to administer and staff the college.

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[35]T. T. Solaru, Teacher Training in Nigeria (Edited and with final chapter by Ian Espie, M. A.) (Ibadan: Ibadan University Press, 1964), pp. 102-103.

Advanced Teachers' College, Kano had begun operation in September 1961 as Kano Men's Training College in buildings provided on loan by the Kano Native Authority at the Gwale Senior Primary School site located within the city of Kano.

The original enrollment of the college was one class of thirty-four Post-Secondary students, enrolled for a two-year program designed to prepare them to sit for the Grade II teacher examination and subsequently teach in primary schools.

The immediate impetus for the opening of Kano Men's Training College was the decision on the part of the Northern Regional Ministry of Education to establish universal primary school education in the Kano Urban and Rural schools on an experimental basis. This decision necessitated a supply of primary school teachers far larger than the available supply. Kano Men's Training College was established with the purpose of supplying teachers for the primary schools of the Kano area.[36]

In January 1962, a Post-Primary group, composed of 121 students who were primary school leavers, many of whom had been employed as untrained teachers in the Kano Primary Schools, was enrolled. These students were enrolled for a five-year teacher education program designed to equip them to sit for the Higher Elementary (Grade II) Teacher

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[36]Information supplied by Mr. Albert F. Ogunsola.

Examination at the end of their course.

The staff of Kano Men's Training College was initially largely expatriate with a British principal, Mr. K. W. Goodman, in charge. In 1962 Mr. Albert F. Ogunsola was transferred from the Inspectorate Division of the Northern Regional Ministry of Education to the college as principal. Mr. Ogunsola remained at the college, with the exception of a year's participant training at Ohio University, until March 1968. He was succeeded as principal by Mr. Timothy A. F. Afolayan. Thus in the first eight years of its existence, the college had three principals, one of whom remained in the position for six years.

In 1963 the name Kano Men's Training College was changed to Kano Teachers' College. In 1965, with the advent of the advanced Nigeria Certificate in Education (NCE) program, the name of the school was changed to Advanced Teachers' College, Kano (ATCK).

The first Ohio University-USAID staff member, Dr. Milton E. Ploghoft, Chief-of-Party, arrived in Kano in January 1963. In March two other staff members, an English specialist and a mathematics specialist, arrived. By June 1964 there were nine Ohio University-USAID staff members at the college. The Ohio-USAID staff reached its maximum number in 1966, when nineteen staff members were working at the college. In 1968 there were fifteen Ohio specialists employed at the college with nineteen Nigerian counterparts

and ten other expatriate education officers. During 1969-1970 there have been thirteen Ohio University-USAID staff members associated with the project.

During the course of the project contract four members of the Ohio University College of Education staff have served as Chief-of-Party at the Kano Project: Dr. Milton Ploghoft 1963-1965; Dr. Russell Milliken 1965-1966; Dr. Paul Roaden 1966-1968; and Dr. Max Evans 1968-1970.

It is a tribute to the original planners of the project that the major goals of the project have required little change, with the exception of minor shifts in emphasis and changes in time scheduling for the completion of certain phases of the project, from the beginning of the project in January 1963 until the present time.

Five major areas of development were projected for the Ohio University-USAID Project: (1) plant , (2) in-service education, (3) personnel education, (4) curriculum and program, and (5) instructional materials. Each of the five major areas of development is herewith described. The activities accomplished and in progress in each area are briefly summarized.

Plant Development

The two major areas in which the provision of a physical plant were imperative were the construction of a complete new college facility and the provision of staff housing.

Original plans called for sixteen staff houses to be supplied by USAID. The construction of these was begun by the Walsh Company in October 1963. Eight houses were completed and occupied by September 1964. Delay in completion of the other eight houses retarded additions to the Ohio staff, but by September 1965 all sixteen were completed and occupied. In 1966, when the total staff numbered nineteen, two apartments were rented until the following year, when they were no longer needed.

The college had opened in 1961 in buildings which were a part of the Gwale Senior Primary School, provided on loan by the Kano Native Authority. Soon after the first Chief-of-Party for the project arrived in January 1963, plans were initiated for the construction of an entirely new campus, which was expected to be ready for operation in September 1966. Various problems related to construction arose and the new campus was not dedicated and handed over to the Government of Northern Nigeria until January 17, 1967. The NCE section of the college moved to the new campus in May 1967. In September 1967 the Post-Primary section and the remaining equipment were moved to the new campus.

It should be noted that ATCK had actually operated, entirely or partially, in temporary facilities for six of the first eight years of its existence. Delay in the provision of adequate physical facilities inhibited planned progress in some areas, particularly in the development of

the instructional materials area.

In addition to a new college building program, a temporary building program was required. The temporary facilities at Gwale School originally provided four buildings containing four classrooms, an office, library, language laboratory, staff office space, and a storeroom. Two additional buildings, providing four classrooms and two offices, were built in 1964. In 1965 a seventh building, containing two additional classrooms and office space, was completed. In March 1966 an eighth building was completed at the temporary college site. Twelve classrooms were then available. These were used until September 1967 when the school was completely installed at the new college site.

The new Advanced Teachers' College campus, located on a large plot inside the city walls and adjacent to Women's Training College, consisted at its completion of eight buildings--an administrative building, three classroom blocks, a library, an instructional materials block, a cafeteria-assembly hall, and a service unit. A women's dormitory with a capacity of seventy-two was completed and occupied in January 1969, making a total of nine buildings in the complex. This dormitory facility and the cafeteria, which began operation during the winter of 1969, were not available to the respondents considered in this study.

The campus library contained approximately eleven thousand volumes. The library had some 130 professional journals and magazines, plus local and international

editions of newspapers.

Office furniture and business equipment have been supplied for the administrative block. The various subject areas have been equipped with appropriate materials. The science equipment included a permanent laboratory, a portable science laboratory, UNICEF science kits, a variety of models, and expendable laboratory equipment. The science laboratory was expanded during 1969 to provide for the addition to the NCE curriculum of a science major (physics-chemistry) during the 1969-1970 school term. A large amount of furniture has been provided, including 750 student chairs, 450 student desks, 22 teacher desks, 20 library tables, 6 library carrels, 30 bookcases, and 64 dining tables.

In-service Education Program

One of the major objectives of the Ohio University-USAID Project at ATCK was the establishment of a comprehensive in-service education program. A variety of in-service activities serving the greater part of Northern Nigeria have been instituted jointly by the various Ministries of Education, Local Education Authorities, the Institute of Education of Ahmadu Bello University, and Ohio University-USAID.

The purpose of the total in-service education program was the improvement of classroom efficiency of both certified and uncertified teachers and the assistance of

untrained and undertrained teachers to achieve certification up to and including the Grade II Teachers' Certificate, as well as professional assistance to Headmasters and Inspectorate personnel.

The in-service program has been carried out through the following activities:

1. The preparation of correspondence courses in arithmetic and English
2. Preparation of a series of radio tapes
3. Provision of evening classes, vacation courses, and workshops in various academic subjects, in the production of visual teaching materials, and in school administration and supervision
4. The establishment of three in-service education centers which provide library facilities and space and materials for the preparation of teaching materials
5. Establishment of a lending film library
6. Cooperation with the development and operation of the Teacher In-Service Education Program (TISEP)
7. Provision of an Ohio University staff member in the Ministry of Education of Kano State, to act as a coordinator of in-service activities.

From one to three Ohio University-USAID staff members have had assignments to in-service work as a major part of their project responsibility during their stay in Kano; however, all members of the Ohio University staff have been involved in some forms of in-service work in addition to their other duties.

During late 1965 negotiations were made with the Local Education Authority in Kano for the use of a building at Shahuci Primary School to serve as an in-service center.

The building contained two large rooms, suitable for a library and a materials workroom, and a small store room. The Local Education Authority (LEA) repaired the building and Ohio University-USAID furnished, equipped, and staffed the center. The center was formally dedicated in a ceremony at which the Emir of Kano gave the major address on April 29, 1967. At this time the major repairs, including a reinforcing wall, thief-proofing, painting, and the installing of electrical outlets for audio-visual equipment and the air conditioning system had been completed. During the next two years a wall was constructed around the building and grounds, landscaping was completed, drapes were installed, and the LEA provided running water and toilet facilities.

The Shahuci In-Service Center contained approximately four thousand volumes in its library and was stocked with a number of audio-visual materials and expendable supplies for the production of teaching aids. The in-service centers at Gumel and Hadejia operated a library and materials production facility in one room which was located in a primary school. Each of these centers had approximately four hundred volumes in its library.

Until January 1969 the Shahuci In-Service Center operated as the focal point for most of the in-service activities sponsored by the college. In January 1969 the Kano Educational Development Center, located in a school site on Airport Road in Kano Township was opened by the

Ministry of Education, Kano State. The second floor of the building was devoted to in-service education programs, including TISEP, (Teacher In-Service Education Program), under the supervision of the Ohio University staff member assigned to the Kano State Ministry of Education as in-service advisor. At this time the Shahuci, Gumel, and Hadejia centers were designated as sub-centers and the majority of activities were conducted at the Kano Educational Development Center.

Personnel Education Program

Since the development of educational personnel equipped to operate all phases of the program at ATCK was one of the purposes of the Ohio University-USAID Project in Kano, "participant"[37] education has been of major importance from the inception of the project.

The first two participants arrived at Ohio University in September 1963 to begin their training. Since that time twenty-six Nigerian participants have gone to Ohio University and to other American institutions in connection with the Ohio University-USAID Project at ATCK.

Fifteen of the twenty-six participants have completed their studies and have returned to Nigeria. It is

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[37]A "participant," as related to the ATCK Project and as used in this study, was a person sent to the United States for advanced training, with the expectation that he would return to a specific position of educational leadership in Nigerian education.

significant that fourteen of the fifteen have served at ATCK upon their return (by mutual agreement one participant returned to another administrative post); however, five were recalled to their states of origin upon the formation of the new state structure in 1968. In each case, these persons now occupy responsible educational positions within their respective states.

Most of the participants have earned baccalaureate degrees while studying in the United States; in addition, one-third of them will have completed the Master's degree or will have taken post-Master's work when the total participant program is complete.

The selection of candidates for participant positions has been a cooperative undertaking involving Nigerian education ministries, the ATCK administration, the Ohio University staff, and USAID. As a general policy, those participants who are sent abroad study only in those fields in which Nigerian training programs are not yet available, or in fields in which there is a shortage of Nigerian-prepared personnel.

It was not possible to provide a total staff for the college through the participant education program; therefore, a second aspect of the education of Nigerian staff personnel has been the counterpart education program, which may be referred to as "on-the-job" education. Ohio University staff members at the Kano Project have worked closely with the Nigerian staff members in their special

areas, assisting the development of the Nigerian staff by instruction and cooperative effort.

Curriculum Development

When the first Ohio staff members arrived at the college in 1963, classes had been in progress for approximately one and one-half years, but a complete and coordinated curriculum had not yet been developed. By June 1965 the development and/or revision of a basic outline for each subject matter area taught at the college had been made. It was then necessary to extend these syllabi to curriculum programs. By January 1966 a comprehensive five-year curriculum guide for the Grade II program in the areas of general science and health education was completed by the Ohio University staff. The general science curriculum guide was the first of its kind for Northern Nigeria. Similar curriculum development was carried out in other academic areas for the Grade II program. Since syllabus revision is a constant activity, changes and additions will continue; however, the basic course curriculums have been developed.

Details of the curriculum for the Grade II and the NCE program are given in the first two sections of Chapter IV, which treats these programs and their students.

Program Development

Ohio University staff members have been active in a variety of other facets of program development associated

with the college. A number of Ohio University staff have served as Department Chairmen and as members of a variety of committees, including Boards of Studies. At the time of this study, the Chairmen of Departments were, with one exception, Nigerian staff members.

The development of a student personnel program at the college was initiated in 1966 and the Ohio staff developed, or shared responsibility for developing, class schedules and time tables, a cumulative record system, report forms, personal and professional counseling, and interviewing for NCE student intake.

In the area of extra-curricular activities, a drama club has been formed, a student newspaper has been organized, chapters of the YWCA and the Y-Teens, the Youth Social Circle and the Historical and Cultural Affairs Society have been established and the faculty has been active in athletic activities.

Public Relations

The ATCK Newsletter was first issued in January 1966, and has been published quarterly since that date, to inform Nigerian education officials and persons related to and interested in the Kano Project of the continuing activities of the project.

Other activities of a public relations nature have included the following:

1. Two films related to ATCK activities have been made and have been widely distributed.

2. A pictorial history of the college has been prepared by the in-service staff and presented to the Ohio University campus as an aid for professional recruitment.

3. A college fact sheet has been distributed to interested educators in Nigeria.

4. A number of five-minute tapes concerning Kano City and the Ohio University-USAID Project have been sent to the Ohio University campus for appropriate distribution.

5. A staff directory has been developed, and kept current, by the Ohio University staff.

Research Activities

A research committee has been established at the college and procedures for developing research projects have been defined. A number of research activities have been carried out by Ohio University staff members and a number are in process.

The librarian conducted a research of library practices and personnel in Nigeria. This survey was published in the journal, School Library Notes, which is jointly edited by the ATCK librarian and the librarian at Ahmadu Bello University.

The Mathematics Department organized a study dealing with the value of the correspondence course program for the TISEP students. It also organized an internal study of the effectiveness of the special five-year correspondence course that was designed for TISEP.

In 1966 a follow-up study, conducted by means of personal interviews, of two classes of Post-Primary students

who left the college after a three-year training program was completed. The findings of this study are discussed in Chapter III.

Research activities which are currently in process at ATCK, or which have just been completed, are (1) The Development of an Informal Reading Inventory, (2) A Study of Hausa Child Rearing Practices, (3) A Study of Koranic Education in the North, (4) an action research project in practice teaching via television, and (5) A Follow-Up Study of ATCK Students.

The Development of an Informal Reading Inventory was designed to measure the reading status of Nigerian primary school children. A correlational study was projected to compare data obtained from the use of the inventory and that obtained from a testing program sponsored by the Ministry of Education, Kano State. From this analysis, it was expected that the specific nature of some of the reading problems of the English language experienced by Nigerian children in classes one through six would be identified.

A preliminary investigation was undertaken to determine what research was available which was related to the proposed Study of Hausa Child Rearing Practices. A tentative proposal for a major investigation in this area had been developed; however, further action to conduct the research was not to be taken until all possible sources of related research had been explored.

A Study of Koranic Education in the North which appeared to have relevance to the general area of educational expansion and improvement in the Northern States was in progress. One Ohio staff member made a preliminary investigation of the nature of the problem through interviews with selected educators and government officials and through a review of available literature. Certain data related to the general question was collected as a part of a study being carried out by a lecturer at Ahmadu Bello University. It was anticipated that a preliminary report could be issued and that a major proposal for research could be developed.

The action research project in practice teaching via television was intended to give second year NCE students experience in presenting lessons to student groups similar to the groups they would encounter in actual practice teaching during the third year of the NCE course. Small groups of students presented lessons to Grade II students from the college. These lessons were video-taped and played back for the observation and discussion of the total second year education class.

Instructional Materials Center

The Instructional Materials Center was designed to include three major facilities for the development and utilization of instruction and instructional materials. These were (1) the material development center, (2) the

closed circuit educational television system, and (3) the language laboratory.

Material Development Center

This center was established to provide a workroom for students wishing to make teaching aids. Materials for constructing teaching aids included a laminating and dry mount press, a variety of lettering equipment, and a supply of expendable materials. The Material Development Center contained two 16mm projectors, two slide projectors, five tape recorders, five record players, an opaque projector, 267 filmstrips, a large slide collection, and 563 16mm motion picture films.

The center also contained models or samples of the various visual teaching materials which the academic departments considered to be the best representative samples for use in reproducing visual teaching materials in the given academic field. Students were provided with the necessary materials and encouraged, and in some subject areas required, to produce these aids for their own permanent file of visual teaching materials. A separate room attached to the Material Development Center housed an offset press which was used for the production of a variety of college programs, tests, reports, and the ATCK Newsletter. Another room contained a photographic laboratory with facilities for developing and enlarging films.

The Material Development Center operated a film loan service to secondary schools and teacher training

institutions in the six northern states. In January 1969 the Material Development Center mailed 255 copies of its new Instructional Material Catalogue to secondary schools and teacher training institutions in the six northern states. At the time of this study, films were borrowed at the rate of approximately forty per month.

Closed Circuit Television Studio

The second major area in the Instructional Materials Center was the closed circuit television studio, located in a suite of four air-conditioned rooms. The television studio was equipped with a video-tape recorder and had a complete control room, studio, workroom and office.

The educational television facility became operational in November 1967 when the installation of equipment was completed. A cable connected the television facility with Women's Training College and both schools utilized the educational broadcasts as well as the weekly campus news and feature program, "Yau." ("Yau" is a Hausa word roughly equivalent in meaning to "Today.") Twenty-one television sets in various classrooms utilized the increasing number of television lessons, lectures, and interviews which have been made available on video tape.

The closed circuit television system served a useful purpose in preserving a record of ceremonies on the campus and in preserving for future use

programs on current events as well as serving its basic function as an instructional medium.

Language Laboratory

The third major area in the Instructional Materials Center was the air-conditioned language laboratory, which provided thirty tape-equipped listen record stations. A complete course of English language tapes, which included approximately 150 individual twenty-minute tapes, had been developed by the language laboratory director.

The use of the language laboratory, which had formerly been devoted primarily to classes for Grade II students, has been expanded to include systematic instruction for the NCE students.

Summary

Section one of this chapter has presented background information concerning the historical development of education in West Africa and in Nigeria. Problems related to educational development--provision of mass primary education, teacher supply, status, and training, academic versus vocational education, the problem of the unemployed school leaver, and the critical need for more educated middle-level manpower--have been discussed. The role of expatriate aid, and particularly of United States assistance, has been treated.

Section two of this chapter has presented an account of the purposes of and the development of ATCK. This

institution represents one facet of the story of accelerated educational development in West Africa, in Nigeria, and in Northern Nigeria in particular, during the past decades.[38]

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[38]Information contained in Section two of this chapter, unless otherwise footnoted, has been based upon the Semi-Annual Reports of the Ohio University-USAID Kano Project, upon the individual six-months' progress reports of Ohio University staff members at ATCK, upon correspondence and other records contained in the college files at ATCK, upon information supplied by a number of Nigerian and expatriate informants, and upon the first-hand observations of the writer during her two-year assignment, 1967-1969, as a member of the Ohio University staff at ATCK.

CHAPTER III

PROCEDURES OF THE STUDY

This chapter presents an account of the preliminary survey which was undertaken to determine whether any previous follow-up studies in teacher education had been carried out in Nigeria. It reviews the related studies, describes the development of the data gathering instruments, both for purposes of collecting information from students and from their principals. It describes the subjects of the study and procedures used in locating these subjects and the questionnaire mailings and personal interviews necessary to complete the questionnaires. The tabulation of responses, validity and reliability of responses, and the statistical treatment of responses are discussed.

Preliminary Survey

Prior to planning the procedures and beginning work on this follow-up study, it was judged desirable to determine what, if any, other follow-up studies of students or of teachers had been conducted in Nigeria. For this purpose an informal survey was made by mail and by personal interview of the USAID and foundation sponsored agencies, of the functioning Advanced Teachers' Colleges, Grade II Teachers' Colleges, and Institutes of Education in Nigeria

to determine whether they had conducted any investigations of this nature. This preliminary survey was carried out during October and November 1968.

Responses were received from the Institute of Education, Ahmadu Bello University, Zaria, from Advanced Teachers' College, Zaria, from Bichi Teachers' College, from Wudil Teachers' College, and from the Education Division, USAID, Lagos. With the exception of USAID, these institutions reported that they had conducted no follow-up studies of this nature and had no knowledge of any research of this kind which had been carried out in any other Nigerian educational institution. The Education Division, USAID, Lagos provided copies of two follow-up studies;[1,2] however, only one of these was directly concerned with teacher education, and it was devoted exclusively to persons educated as business education teachers for secondary schools.

Review of Related Follow-up Studies

The Butcher and Carey study of graduates of the business education program at Ibadan, which was conducted

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[1]Genevieve Butcher and Edwin L. Carey, "A Follow-Up Study of Persons Who Completed the Ohio University USAID Business Education Program 1960-1966," (Ibadan, Nigeria: Ohio University-USAID, 1966) 9 pp. (Mimeographed)

[2]Cameron W. Lambe, "A Follow-Up Study of Graduates of the Technical College, Ibadan, Nigeria," (Ibadan, Nigeria: Western Michigan University-USAID, 1967) 70 pp. (Mimeographed)

by means of mail questionnaires, was concerned with the 202 persons who completed that program from 1960-1966. The study had a questionnaire response of over 80 per cent. The investigators concluded, on the basis of their findings, that eight out of ten of the business education teachers educated in the program were teaching or administering in a business education program in the secondary schools of Nigeria.[3] Of these teachers, 45 per cent were teaching other subjects in addition to business subjects.[4]

Butcher and Carey compared the salaries of the respondents working in business or government positions with the salaries of those engaged in teaching and found that average salaries were higher for those employed in business. The business or government employees, all of whom held either the Grade I Certificate or the Technical College Diploma in Commerce, were earning an average of 517 pounds ($1447.60) per annum. Those business education teachers with Grade I certificates were earning an average of 431 pounds ($1206.80) per annum. However, only 5 per cent of those who had been employed as business education teachers had left teaching during the period 1960-1966 to enter employment in business or government. None of the NCE certificated business education teachers had left teaching. It should be noted, however, that the

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[3]Butcher and Carey, op. cit., p. 1.

[4]Ibid., p. 3.

average salary of the NCE business teachers was 639 pounds ($1789.20) per annum.

They investigated also the satisfaction, or dissatisfaction, of the business graduates with their job situation and concluded that the highest percentage of job satisfaction, as well as the highest percentage of dissatisfaction, was registered by those persons working for business or government. The next highest percentage of satisfaction was found among those business education teachers who were functioning as educational administrators. Two out of every three business teachers indicated satisfaction. The highest percentage of dissatisfaction was registered by those business teachers who were spending more than one-half of their time in teaching non-business subjects.[5]

When questioned about the effectiveness of their college business education program, 98 per cent of the respondents stated that, in their opinion, their college business education program had been effective.[6] The investigators concluded that the Ohio University-USAID business teacher education program had been successful in terms of its curriculum and production of practicing teachers.[7]

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[5] Ibid., pp. 4-5.

[6] Ibid., p. 7.

[7] Ibid., p. 9.

A review of the literature revealed that another follow-up study of NCE students had been conducted in the Western Region of Nigeria.[8] This study surveyed, by means of mail questionnaires or personal interviews, the first NCE graduating class from Federal Advanced Teachers' College, Yaba (Lagos, Nigeria). The class numbered 135 graduates, or 92 per cent, of the 146 persons comprising the original intake of the program in 1962. Jones reported that 123 of the 135 graduates, or 91 per cent, were employed in education at the end of the first year following their completion of the NCE program.

Of the 123 graduates, ninety-five or 77 per cent, responded to the mail questionnaires or were interviewed. Of the respondents, 82 per cent were employed in secondary schools, 12 per cent were employed in teachers' colleges and one person was employed as an inspector of schools.

The study concluded that the NCE teacher education program was producing secondary school teachers adequate to the needs of Nigeria, and that the present teacher education program in operation at Federal Advanced Teachers' College was effective and had certain recognized strengths.[9]

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[8]Cathryn M. Jones, "Follow-Up Study of 1965 Graduates, Federal Advanced Teachers' College, Yaba, Lagos, Nigeria," (Lagos, Nigeria: University of California at Los Angeles-USAID, 1966.) 82 pp.

[9]Ibid., pp. 1-78.

The only follow-up study of ATCK students which had been completed, prior to the present investigation, treated, by means of personal interview, a sample of the sixty students who had been educated as Grade III teachers.[10]

After two years of their course work in this five-year program, the first intake of Post-Primary students at ATCK was divided into two groups on the basis of test results. The group having the lower test scores was assigned to follow an adapted course of study during the third year and sit for the Grade III teacher examination at the end of that year. The students with the higher scores continued for the full five-year program.

The study interviewed thirty-six, or 60 per cent, of the total of sixty teachers in the lower group. These students left ATCK in December 1964 and were all employed as teachers in Kano State (then Kano Province).

It was the purpose of the study to elicit information from the interviewees through securing their answers to the following questions:

(1) What was their reaction to the teaching situation, i.e., were they satisfied with their jobs?

(2) What were their intentions for the future, i.e., did they intend to stay in the teaching field?

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[10]Donald E. Stanger, "Follow-Up Study of Two Classes of Post-Primary Students Leaving Kano Teacher Training College After a Three Year Program in Teacher Training," (Kano, Nigeria: Ohio University-USAID, 1966) 16 pp. (Mimeographed.)

(3) What were their plans for furthering their own education, i.e., did they want to become Grade II teachers?

(4) What was their present involvement with in-service activities which would help to prepare for a higher certificate?

(5) Were they taking any correspondence courses offered through the Ministry of Education?

(6) For those referred in the Grade III exam, had they sat for their referred subjects?[11]

The findings indicated that at the beginning of the second year after completion of the college education program all the respondents were involved in teaching or in further teacher preparation through full time school attendance.

All respondents indicated that they liked teaching and planned to remain in the field. All indicated that they intended to work for the Grade II certificate, including those who had not yet passed the Grade III examination, although none had yet taken any steps toward achieving higher certification. When questioned further on this point, students indicated that correspondence work was too difficult. They viewed working toward higher certification almost solely in terms of going back to school in full time teacher education programs.[12]

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[11] Ibid., p. 2

[12] Ibid., pp. 8-13.

Development of a Data Gathering Instrument

The discussion of research techniques by Good[13] and by Sukhia et al.[14] indicated that a normative-survey study would serve the need for information set forth in the purposes of this study.

It was necessary to determine whether the use of interviews or mail questionnaires would be more effective in eliciting the desired information. A review of the advantages of mail questionnaires by Parten[15] and Sax[16] and of the advantages and disadvantages of interviews cited by these authorities[17,18] led to the decision that if the desired information could be secured by means of a mail questionnaire, this means would be most desirable.

The factors which influenced this decision were the lack of a highly trained interviewer, or interviewers, what

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[13]Carter V. Good, Introduction to Educational Research (New York: Appleton-Century-Crofts, Inc., 1959), pp. 165-252.

[14]S. P. Sukhia, P. V. Mehretra, and R. N. Mehretra, Elements of Educational Research Second Edition (Bombay: Allied Publishers Private Limited, 1966), p. 193.

[15]Mildred Parten, Surveys, Polls, and Samples: Practical Procedures (New York: Harper & Brothers, 1950), pp. 94-96.

[16]Gilbert Sax, Empirical Foundations of Educational Research (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1968), pp. 214-216.

[17]Parten, op. cit., pp. 79-82.

[18]Sax, op. cit., pp. 202-208.

was known about the social customs and attitudes of the group being interviewed, and their relationship to the institution conducting the study.

Sax pointed out that "The flexibility of the interview is a distinct advantage, but it also generates its own special difficulties, especially where the interview is unstructured."[19] Both authorities stated that a major disadvantage of the interview technique is the difficulty of securing properly trained interviewers able to avoid bias.

In view of the advantages cited for the mail questionnaire--lower cost, wider coverage, avoidance of personal antagonism to investigators, and the possibility that informants might answer questions more frankly--it was concluded that the use of mail questionnaires would prove more desirable than the use of interviews.

The second factor which favored the use of a mail questionnaire was the tradition of Hausa hospitality and courtesy to a visitor. It was anticipated that many of the students would regard it as a breach of good manners to offer critical or negative responses to questions posed by a visitor to their school or home.

It was judged that the major disadvantages of the mail questionnaire, as cited by Parten,[20] would not be

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[19] Ibid., p. 202.

[20] Parten, op. cit., pp. 95-96.

operative in this study. The disadvantages of low returns and incomplete forms were not considered likely to cause major difficulty in the study, since the students were expected to be willing to respond to an inquiry directed to them jointly from the principal of the school they had attended and from the Ohio University-USAID project at that school. This expected cooperation was directly related to their concern for securing further training--either as an NCE student at the college if they had completed the Grade II course, or as a candidate for participant education in the United States if they had completed the NCE course. It was judged that even those former students who were not interested in further education would also respond to a questionnaire because the novelty of receiving the form would provide motivation for answering.

One of the disadvantages of mail questionnaires cited by Parten later proved to be a major source of difficulty. This difficulty was the matter of securing an accurate, up-to-date address list of students included in the study.

Whether interviews or mail questionnaires might prove to be more effective in try-outs, it was, in either case, necessary to develop a questionnaire form, since the structured interview was the only type of interview considered for use in conformity with Sax's discussion of the difficulties posed by unstructured interviews.

It was not possible to secure copies of

questionnaires which had been used in Nigeria for follow-up studies. It was judged that it would be necessary to construct as concise a questionnaire as possible which would provide the desired information. It was recognized that the people responding to the questionnaire items would be unfamiliar with this kind of instrument and that the format needed to be as uncomplicated as possible.

Considerations in questionnaire construction were guided by the discussion of the subject offered by Parten[21] and by Oppenheim.[22] Initially, it was considered that a completely closed questionnaire of the forced answer type might be easiest to handle and be most acceptable to the students involved, in terms of ease of response, as stressed by Parten. Such a questionnaire, containing only specific items of information, was therefore constructed. A try-out of this questionnaire was conducted with a group of fifth year Grade II students at ATCK and with a group of third year NCE students.

Half of each group was requested to read and complete the questionnaire, after which any difficulties or misunderstandings of questions were discussed with them. The other half of the group was asked the questions orally and the responses were recorded by the questioner.

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[21] Ibid., pp. 157-217.

[22] Abraham N. Oppenheim, Questionnaire Design and Attitude Measurement (New York: Basic Books, Inc., 1966), pp. 24-47, 81-102.

The students complained about the length of the original questionnaire and about their inability to qualify or explain their answers. Some items which required that respondents indicate only one item each as a first, second, and third choice gave difficulty, since both Grade II and NCE students frequently indicated more than one choice for each of the three degrees of preference. It was deemed wise to omit items in this form from future drafts of the questionnaire.

After consultation with Dr. Allan Siemers and further trials, a twenty-item questionnaire which provided spaces for short answers, with a few closed-response items to be checked on a five-point scale, was devised.

This questionnaire was submitted for criticism to the following judges, all of whom were qualified professional critics in either the areas of educational research techniques or Nigerian teacher education:

Mr. Timothy A. F. Afolayan
Principal
Advanced Teachers' College, Kano

Mr. Gordon Behm
Mathematics Department
Ohio University-USAID
Advanced Teachers' College, Kano

Dr. Max W. Evans
Chief-of-Party
Ohio University-USAID
Advanced Teachers' College, Kano

Dr. James Hake
Chairman, Education Department
Ohio University-USAID
Advanced Teachers' College, Kano

Mr. Asani Iman
Vice Principal
Advanced Teachers' College, Kano

Mr. Albert F. Ogunsola
Associate Director
Institute of Education
Ahmadu Bello University, Zaria

Mallam Ibrahim Bello Ringim
Tutor in Charge, Grade II Section
Advanced Teachers' College, Kano

Dr. Allan Siemers
Specialist in Action Research
University of Wisconsin-USAID
Institute of Education
Ahmadu Bello University, Zaria

The questionnaire was revised in accordance with the suggestions of the judges. It was then used in a try-out survey with two groups of students at ATCK. To determine whether the questionnaire could be used effectively with teachers of Grade II level education, a group of fifteen fifth-year students in the Post-Primary program were selected at random. It was judged that these students would be as similar to the former Grade II students from ATCK and to those from the other Grade II teachers' college as would any group available.

These students completed the questionnaire with no additional information other than that which would be provided in the cover letter designed to accompany the mail questionnaires. After completing the questionnaire, each person was asked to point out any items about which he had been uncertain how to answer, or which he thought would be better understood if stated differently.

Another group of fifteen fifth-year Post-Primary students were administered the trial questionnaire in individual oral interviews. The interviews were time-consuming, and examination of the questionnaires administered orally and those completed with only the covering directions revealed no particular differences. In general, it appeared that these students understood the written forms as well as, if not somewhat better than, they did the interview. This response may have been an indication that these students found it easier to respond to written English than to oral English at this educational level.

The same procedure was used with two groups of fifteen persons each, selected from the third year NCE class. It was judged that the third year NCE students were as similar to NCE graduates as any group available. The results were the same, whether oral interview or written questionnaire was used. However, these groups found it much less time-consuming to complete the written questionnaire and indicated when questioned that they preferred this procedure.

After further consultation with Dr. Siemers, who had assisted in the development of the questionnaire through all its stages,[23] and minor revision in the

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[23]The draft of this questionnaire was included in the materials submitted for approval to the investigator's major adviser, Dr. Albert H. Shuster, Chairman of the

wording of items and the order of questions, it was decided that the questionnaire study would be conducted by use of mail questionnaires utilizing the twenty item questionnaire form which had been developed. This questionnaire seemed to meet best the requirements cited by Parten for determining which draft of a questionnaire to use in a study.[24]

The final form of the questionnaire and cover letter used in the study are included as Appendix A.

Development of Principal's Evaluation Form

It was desired to compare the NCE students' evaluation of their present teaching performance with evaluations of their present teaching performance made by the principal of the institution in which they were employed. This comparison was accomplished by means of a one-page evaluation form, which duplicated, with slightly different wording, the format used in the students' questionnaires, and a cover letter. A copy of the evaluation form and cover letter have been included as Appendix B.

The Subjects

The subjects for the study included four groups:

Department of Elementary Education. Dr. Joseph Sligo also offered helpful criticisms and suggestions concerning the questionnaire and the design of the study. Dr. Dick Tracy assisted with the study in its later stages.

[24]Parten, op. cit., pp. 389-390.

There were two groups of Post-Primary students; one of these groups was composed of Post-Primary students from ATCK; the other group was composed of Post-Primary students who had completed their Grade II course at a neighboring Grade II teachers' college. There were two groups of NCE students; one of these groups was composed of the first NCE intake at ATCK; the other group was selected from the 1968 graduating class of a neighboring Advanced Teachers' College.

The subjects from ATCK were all students enrolled in two teacher education programs at the College during the period 1962-1965 who would normally have completed the program in which they were enrolled by June 1968. This enrollment included 152 in the Post-Primary Program and eighty-four in the NCE Program.

For purposes of comparison at the Post-Primary level, fifty students were selected at random from the class list of students who sat for the Grade II examination, after completing their Post-Primary course at a neighboring Grade II Teachers' College, in December 1967.

For comparison at the NCE level, fifty students were selected from the NCE examination results list of another Advanced Teachers' College in Northern Nigeria.

Location of the Subjects

A list of the names and available addresses of the ATCK students was prepared from the college records. A

list of the names of these students was posted on staff and student bulletin boards with the request that current addresses be supplied if possible. This procedure was relatively successful with respect to the NCE students; however, it was much less successful with respect to the Post-Primary students.

One of the customs peculiar to this society, which engendered a considerable problem in the study, was the penchant of Nigerian youth for changing their names. Unless both the original name and the "new" name were known, students were often unable to identify a name on the list, even though they actually knew the individual in question. This multiplicity of names posed a problem also when questionnaires were returned. Returned questionnaires were routinely marked with the individual's school student number to facilitate identification of returns; however, one questionnaire was returned which matched no name on any list. Fortunately, a note on an inside back sheet of the questionnaire gave the respondent's former name. Another person had used one name during his education for the Grade II certificate at ATCK and another name during his NCE education. It was not known that these two different student numbers and completely different names actually represented one person until a personal contact was made. The information was then volunteered when the person was asked to go over the list of ATCK students to see if he could provide information about the whereabouts

of any of them. The addresses provided for the comparison group of Post-Primary students from another Teachers' College was reasonably satisfactory because it was a more recent list.

It was hoped to secure the list of teachers employed by the Native Authority (Local Education Authority) in Kano, since the great majority of Post-Primary teachers were employed in the primary schools of urban and rural Kano district. Consultation with Kano State Ministry of Education inspectors indicated that their records were not current enough to be helpful and that to the best of their knowledge no list of teachers employed by the Kano Local Education Authority existed.

Consultation with the financial officer in charge of issuing teachers' salary checks in the Kano Local Education Authority office revealed that this officer did not have a complete, current list of teachers on the payroll. Further investigation indicated that if teachers did not receive their salary payments at the school in which they were employed, they simply came to the Local Education Office to secure it.

Locating the NCE students was less of a problem. The same procedure of posting a list of NCE students' names on the school and staff bulletin boards which had been used for the Post-Primary students was used with marked success. This procedure was also used at the other Advanced Teachers' College with success.

The major difficulty encountered in reaching these people, once their location was known, was the frequency of transfer of personnel from one school to another. One NCE student wrote to the ATCK principal and requested a questionnaire, explaining that one of his fellow-teachers and a fellow-classmate at ATCK had received a questionnaire by mail and that he had not; he was promptly mailed a questionnaire which he just as promptly returned. Investigation revealed that this person had originally been sent a questionnaire at the school to which he had been posted in July 1968; however, he had been transferred to another school within the intervening six months and had not received it.

Questionnaire Mailings

Parten's discussion of mail questionnaires pointed out that the most opportune time for sending out questionnaires must be selected.[25] The most opportune time for mailing questionnaires was not likely to be the same for all recipients in this study, since the vacation schedule of secondary schools, primary schools, teachers' colleges and advanced teachers' colleges was not uniform. It was also difficult to know how long mail delivery would require in different parts of Northern Nigeria. One questionnaire was returned one month after the date on which the student

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[25] Ibid., pp. 389-390.

had mailed it. It was decided that the first mailing of questionnaires would be made in mid-January 1969.

In cases in which no response was received to the questionnaires, it was planned that the person would be interviewed and a questionnaire would be completed at the time of the visit. It was determined that the conditions of completing the questionnaire in those instances in which the person was seen personally would be as similar as possible to the conditions under which a respondent completed a mail questionnaire. However, in the case of a personal interview, it was planned that after completion of the questionnaire, the respondent would discuss the questionnaire and his attitudes toward the topics treated in the questionnaire, so that there might be developed as much insight as possible into the reasoning which prompted specific answers.

It was judged that conformance to this procedure would insure that responses, whether secured through a mail questionnaire or through personal interview, could be treated in the same manner in reporting the findings of the study. This procedure was followed throughout the study.

Following the first questionnaire mailing, any returned undelivered questionnaires were remailed to the students' home addresses if these were available. The response of Post-Primary students to the first mailing was limited and a large number of questionnaires were returned with "address unknown" designations. The quantity and

quality of the return from NCE students was much larger.

The second mailing of questionnaires to students was made during the first week of March 1969. A third mailing, with a personal letter, was made in April to those students who had not responded to a mail questionnaire and who had not been seen personally.

Principals' evaluation forms were mailed to the principals of those institutions employing NCE students during January 1969. A second mailing to principals was made during the first week of March.

Personal Interviews to Complete Questionnaires

It had been anticipated that securing questionnaire responses from ATCK Post-Primary students would involve a large number of personal interviews because of two factors. The first factor, the lack of adequate addresses, has been discussed. The second factor was the supposition that students employed by business firms would be reluctant to respond to an inquiry from the college, since they had not honored their agreement to teach for a stated period of time after the completion of their college education.

Personal interviews with Post-Primary students from ATCK were carried on from February until May. Frequent transfer of teachers among the primary schools and frequent absence of teachers from the school premises necessitated repeated trips to the same primary schools.

From March 11 through March 26, 1969 a three-

thousand mile trip by car was made from Kano through parts of the North West State and through Kwara State for the purpose of interviewing students who had not responded to the questionnaires, or for whom no addresses were available. This trip was quite successful, since it produced forty-five questionnaire responses which would not have been secured otherwise, as well as some addresses of NCE students who had been transferred from the school to which they were originally posted after the completion of their college course.

Tabulation of Questionnaire Responses

Questionnaires returned from each of the groups in the study were tabulated separately by hand. Frequencies were counted for items which required a specific response. For those items which yielded an attitude or recommendation, all answers were listed and answers were then classified under general headings. Similarity of responses to these items made classifying a relatively simple task. A narrative report with tables indicating frequencies and per cents of response was prepared. This analysis is the subject of Chapter IV.

Validity and Reliability of Questionnaire Responses

The questionnaire was judged to have face validity in that it secured the information that it had been designed to secure. Factual information on questionnaires

returned by ATCK NCE students was compared with the rather complete information contained in NCE student cumulative record folders. The comparison indicated that the information supplied on questionnaires was valid.

The only way to determine whether the opinion answers were reliable in this study would have been to use a test-retest procedure. This procedure was not feasible in this situation. It so happened, however, that two NCE students filled out and returned two copies of the questionnaire form; this duplication came about as a result of the first questionnaires' not having reached the college when the second questionnaire mailing was made. In both cases the two copies of the questionnaires supplied the same information with respect to both factual and opinion items. No cumulative record folders existed for Post-Primary students at ATCK; therefore, it was not possible to check their responses.

Statistical Treatment of Selected Responses

Reference to Clarke's[26] discussion of the use of chi-square techniques in making statistical inferences indicated that this statistical procedure would be appropriate for testing the hypotheses stated in the study. The only difficulty encountered in the application of the

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[26]Robert B. Clarke, Arthur P. Coladarci and John Caffrey, Statistical Reasoning and Procedures (Columbus: Charles E. Merrill Books, Inc., 1965), pp. 331-360.

chi-square formula was the fact that for some items the expected frequency was less than five.

In discussing the limitations on the use of chi-square, Clarke pointed out that the expected frequency should be at least five in situations involving only two possible scores (df = 1). In cases in which the number of possible scores is greater than two, the chi-square technique should not be used if more than 1/5 of the expected frequencies are less than five of if any expected frequency is less than one.[27] Where feasible in the study, some classes had to be combined to make the expected frequency larger than five, where it was not feasible to make these combinations, it was necessary to drop some classes from the statistical analysis.

The four hypotheses of the study were tested at the .05 level of significance by means of contingency chi-squares. The calculations were performed by means of a computer program written by Mr. David Richmiller, Institute of Administration, Ahmadu Bello University, Zaria. The analysis of results was supervised by Dr. A. R. Kokan, Department of Mathematics, Ahmadu Bello University, Zaria.

Summary

This chapter has presented an explanation of the

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[27] Ibid., pp. 343-344.

preliminary survey which was made to determine whether previous follow-up studies of teachers had been completed in Nigeria, a review of the related studies which were located, and an account of the development and administration of the questionnaire used in this study. The subjects of the study and the means used in locating them have been described. The method of tabulating responses, the validity and reliability of these responses, and the statistical treatment of responses have been treated.

Chapter IV treats, in three sections, the data relative to the two Post-Primary groups, the two NCE groups, and the hypotheses which were formulated. Each section of the chapter is summarized and a chapter summary is offered.

CHAPTER IV

FINDINGS OF THE STUDY

This chapter is divided into three sections. The first section describes the Post-Primary teacher education program at ATCK. The two groups of Post-Primary students' responses are discussed and reported, and the findings related to these two groups are summarized. The second section of the chapter describes the NCE program at ATCK. The responses of the two groups of NCE students are reported and discussed and the findings related to these two groups are summarized. The third section of the chapter presents the findings relative to the hypotheses which were formulated, the statistical analysis and interpretation of the data, and a summary of the findings.

I. THE POST-PRIMARY STUDENTS

The Post-Primary education program at ATCK was designed as a five-year program for students who had completed the seven-year primary school program. At the completion of this five-year program, the Post-Primary students took the Grade II teacher examination which qualified them to teach in primary schools. This examination was prepared and administered by the appropriate college

instructors for the "internal" subjects, all subjects other than English, arithmetic, and principles and practices of education being "internal" subjects; these three subjects were "external" subjects in that the examinations in these subjects were prepared by the West African Examination Council.

The Post-Primary education program began at ATCK in January 1962 with an initial enrollment of 121. Intake for the Post-Primary program from 1962-1969 is given in Table I.

TABLE I

ATCK POST-PRIMARY INTAKE 1962-1969

YEAR	1962	1963	1964	1965	1966	1967	1968	1969
Intake	121	31	30	60	60	90	64	60

Fluctuations in enrollment from year to year is explained by the fact that the college was also operating a Post-Secondary teacher education program. In years in which there was an intake of students for the Post-Secondary program, the enrollment of Post-Primary students had to be reduced because of limitations of space and staff. This study was concerned only with those persons included in the 1962 and 1963 intake. The total intake of the first two years, 152 persons, represented 29 per cent of the total intake through 1969 of 516 persons.

Post-Primary Curriculum

The Post-Primary curriculum then operating at ATCK included both general and professional courses. The general curriculum was designed to provide the broad educational background necessary for competence in teaching at the primary school level. The professional curriculum provided the learnings in child development, educational psychology, classroom management, methods of teaching, and related topics necessary for effective professional performance. The Post-Primary students had a six-week period of practice teaching during both the fourth and fifth years of their college course. Practice teaching assignments were carried out in the primary schools of Kano and were supervised by the college instructors.

The general curriculum included the academic subjects--English, geography, history, mathematics and arithmetic, and science--as well as art, physical education, and religious knowledge. A one-term orientation course in library use was also offered to first year students.

During the first four years of the program the schedule of required classes was uniform for all students. During the fifth year students who had had four years of science, mathematics, art, and religious knowledge were permitted to elect either to take a fifth year in one of these subjects, or to take a one-year course in English Literature or Arabic.

Classes met for forty-five minute periods for six days each week. These Post-Primary students ordinarily had thirty-four classes each week.

The subjects and number of periods per week, taken from the timetable for a given term, as set forth in Table II, was typical of the Post-Primary education program at the college. The practice teaching experience during the fourth and fifth years of the course was a full day assignment and no other classes were held during that six-week period.

TABLE II

POST-PRIMARY CURRICULUM

Subject	Periods per week
Art	2
Education	3
English (Includes oral English instruction in language laboratory)	6
Geography	3
History	4
Mathematics-Arithmetic	6
Physical Education	5
Religious Knowledge	1
Science (General)	4

Table II outlines a program somewhat typical of

Grade II teacher education programs in Northern Nigeria. Although rural science had been taught in Grade II teacher colleges in the past, general science had not previously been taught at the Grade II level. The teaching of general science in the Grade II program was one of the innovations in this program at ATCK.

ATCK Post-Primary Students Considered in This Study

The only ATCK Post-Primary students treated in this study were those enrolled during 1962 and 1963, since they were the only classes who were scheduled to complete their programs prior to July 1968. Of this group, questionnaires were completed by seventy-eight students, or 52 per cent of the total group.[1]

A comparison of the questionnaire responses of a random sample of ten students who had completed the three-year program and of ten students who had completed the five-year Post-Primary program was made by means of chi-square analysis. No significant differences between the responses of the two groups were found; therefore, all ATCK Post-Primary students were treated as one group in this study. (See Appendix C.)

The first group of students enrolled in the Post-Primary program in 1962 was composed of primary school leavers who were employed at that time as "untrained

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[1]Of the 152 Post-Primary students five were deceased before the beginning of the follow-up study.

teachers"--that is, persons who had themselves completed the seven-year primary school course and who had no further preparation for teaching. This group required a large amount of remedial work in all academic areas, particularly in English. At the end of the second year of study this group was divided into sections on the basis of standardized achievement test results. The sixty students with the lower scores on the test were given a modified third year program to prepare them to sit for the Grade III teacher examination at the end of the third year of the course in December 1964. The remaining sixty continued with the five-year course and sat for the Grade II teacher examination in December 1966.

According to a follow-up study of the sixty ATCK students who sat for the Grade III teacher examination in 1964, of the total of thirty-six students interviewed in the study, nineteen students passed the examination and seventeen students were "referred" or failed the examination.[2] ("Referred" status indicated that the students had failed some subjects in the total examination and were required to take the examinations in the failed subjects again with a passing score before being certified as Grade III teachers.)

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[2]Donald E. Stanger, "Follow-Up Study of Two Classes of Post-Primary Students Leaving Kano Teacher Training College After a Three Year Program in Teacher Training," (Kano: Ohio University-USAID, April 1966) 16 pp. (Mimeographed), pp. 5, 7.

All of the sixty students treated in the Stanger study were employed in the schools in the Kano urban and rural area; fifty-seven were employed in local Education Authority schools, two in volunteer agency schools, and one in a private school.[3]

Several of the students who sat for the Grade III examination and began teaching at the end of the third year of training taught only one year and then re-enrolled in the Grade II education program, either at ATCK or at another Grade II teachers' college.

Other Post-Primary Students Included in This Study

The names of fifty Post-Primary students were selected at random from the class list of a neighboring Grade II teachers' college. These students were mailed questionnaires. Responses were received from forty-five students, or 90 per cent of the group. This group was made up of students who had completed their Grade II program in December 1967. The high level of response of this group was attributed to the fact that the addresses provided for them were current; no questionnaires from this group were returned because they could not be delivered.

For each item reported in this section, comparisons were made between the responses of the ATCK Post-Primary students and the comparison group of Post-Primary students

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[3] Ibid., pp. 8-9.

from the neighboring Grade II teachers' college. The responses of the Post-Primary students of the latter college have been identified in tables as TC, while ATCK Post-Primary students have been identified as ATCK.

The purpose of the comparisons was to determine to what degree the responses of the ATCK Post-Primary students were similar to or different from the responses of other Post-Primary educated students from the same general area.

States of Origin of Post-Primary Students

The personal information section of the questionnaire requested the respondents to list their state of origin. Table III presents the responses to this item and indicates that the Post-Primary students were almost entirely from Kano State.

TABLE III

STATES OF ORIGIN OF THE POST-PRIMARY STUDENTS

	ATCK		TC	
State	N	Per cent	N	Per cent
Benue-Plateau	0	--	0	--
Kano	73	93.5	39	86.8
Kwara	3	3.9	2	4.4
North East	0	--	2	4.4
North Central	0	--	2	4.4
North West	2	2.6	0	--
TOTAL	78	100.0	45	100.0

Table III indicates that the two groups of Post-Primary students were drawn from the same geographic area. The fact that the great majority of these students from both Grade II colleges were residents of Kano State was in keeping with the general purpose of the Grade II colleges, which was to train residents of the state in which they were located for positions in the primary schools of that state.

Current Activities of Post-Primary Students

Table IV indicates the present activities of the seventy-eight Post-Primary students from ATCK and of the forty-five Post-Primary students from the other Grade II college. Of the 78 former ATCK Post-Primary students 53 persons, or 68 per cent, were either engaged in full-time teaching or were full-time students in college programs designed to increase their teaching competence. In the case of the other group of Post-Primary students, 43 persons, or 96 per cent, were engaged in teaching. No persons from the other teacher college were enrolled as students in college programs.

The great difference in the per cent of respondents engaged in teaching from ATCK and from the comparison college as indicated in Table IV was judged to be related to the fact that the comparison group completed their course and began teaching in 1968, while the ATCK group included some people who began teaching after completing a three year course in 1964, and some who completed the five year course and began

TABLE IV

CURRENT ACTIVITIES OF POST-PRIMARY STUDENTS

Activity	ATCK N	ATCK Per cent	TC N	TC Per cent
Employed as teachers	40	51	43	96
Employed in business	18	23	1	2
Full-time students	13	17	0	0
Military service	7	9	1	2
Total	78	100	45	100

teaching in 1967, as well as those who began teaching in 1968. It was expected that the attrition rate would be higher among the Kano Post-Primary students because many of them had been engaged in teaching for a longer period of time.

ATCK Students Engaged in Further Schooling

Table V indicates the schools attended and the courses taken by the thirteen Post-Primary students enrolled in full-time college programs.

The thirteen Post-Primary students who reported that they were full-time students had all taught for a period of time after completing their original training. The two students who were completing their Grade II program at Kano and the three who were completing their Grade II program at

Wudil Teachers' College had all taught for five years after their original period of training. The eight students who were enrolled in the NCE program at ATCK taught for periods of time ranging from two terms to five terms (from two-thirds of a year to one and two-thirds years) after completing the Grade II program and before entering the NCE program.

TABLE V

PRESENT SCHOOL ENROLLMENT OF 13 FORMER POST-PRIMARY STUDENTS

Schools	N	Course
Advanced Teachers' College, Kano	2	Grade II
Advanced Teachers' College, Kano	8	NCE
Wudil Teachers' College	3	Grade II

ATCK Students Employed in Business

Of the eighteen students who were employed in business, three had not taught at all after leaving the Post-Primary program. Fifteen students taught for periods of time ranging from one term for five persons to twelve terms, or four years, for one person. The average number of terms taught by the fifteen students was six terms, or two years. Table VI indicates the current employment of these former students.

TABLE VI

BUSINESS EMPLOYMENT OF ATCK
POST-PRIMARY STUDENTS

Company	Location	N
British Petroleum	Kano	1
CFAO Store	Kano	2
Civil Aviation	Kano	1
Customs and Excise Department	Kano	1
Electric Corporation of Nigeria	Kano	1
Employed by fathers (traders)	Kano	2
G. B. Ollivant	Katsina	1
Kano Co-operative	Kano	1
Lever Brothers of Nigeria	Maidugari	1
Ministry of Education and Community Development	Kano	1
Nigeria Police Force	Kontagora	1
Nigerian Technical Company	Kano	1
Northern States Marketing Board	Kano	2
Nurses' Preliminary Training School	Kano	1
United Bank for Africa	Kaduna	1

With the exception of one student who was employed as a licensed buying agent by the Northern States Marketing Board, all the former ATCK students could be described as being employed in minor clerical or service positions. However, all of these positions were more remunerative than was teaching at their levels of training and experience.

One student from the comparison group was employed by the Bayajida Trading Company, Kano. He listed his position as financial secretary of this company.

Post-Primary Students' Reasons for Leaving Teaching

The reasons given for leaving teaching were primarily financial; sixteen persons listed "better salary" as having had great influence on their decision to accept employment other than teaching. Second and third in frequency of listing were opportunity for promotion and opportunity for further training.

The one person from the comparison group who was employed in business did not indicate his reasons for not teaching, perhaps because he accepted his present position immediately after completing the Grade II program.

Satisfaction of Present Employment in Comparison with Teaching

In response to the questionnaire item, "How does your present post compare with teaching in the satisfaction it gives you?" the nineteen respondents indicated the following responses.

	ATCK	TC
Less satisfaction than teaching	0	
The same satisfaction as teaching	1	
More satisfaction than teaching	14	1
Much more satisfaction than teaching	3	

These responses indicated that this group preferred their present employment to teaching. None of the respondents indicated any desire to return to teaching.

One respondent wrote a note in which he commented on the problems which caused him to leave teaching. His

comments are quoted in their entirety, since his attitude was reflected--although not so articulately or in such great detail--in the comments which other respondents wrote or made verbally during personal interviews.

Sir,

I hereby need to comment on some of the problems that made me leave teaching entirely. These reasons affect the Local Education Authority Kano for lack of cooperation with their poor workers;--

a. No right for change of post.
b. Grade III headmasters dictating to Grade II teachers.
c. No houses for teachers in villages.
d. No proper increases in salary and low salary.
e. No respect from the children, parents, or public.
f. No good and qualified Education Officers.
g. No bush allowances and no postal service in villages.

Teachers must have all or some of these problems solved before the future teachers are to stay and serve for the five years bond services must be completed.

In 100% of the ex-students there are no more than 40% working as teachers.

The dissatisfaction listed by this respondent paralleled almost exactly the tabulation of causes of dissatisfaction cited by the total Post-Primary group which are shown in Table VIII. His estimate of the percentage of former students now teaching appeared somewhat low with respect to the findings of this study; however, if only students who had been out of school for a period of five years were considered, his estimate might have been an

accurate one.

Certification of Post-Primary Students Employed as Teachers

The forty Post-Primary students from ATCK who were employed as teachers were subdivided into two groups on the basis of their teaching certification. Of the forty teachers, twelve had Grade III certificates. One person had failed the Grade III examination and had not retaken the examination.

Of those who had taken the Grade II examination, two had passed the examination and had Grade II certification; fifteen had Grade II "referred" status, three had failed the Grade II examination, and seven indicated that the results of their Grade II examination were unknown to them.

Ten of the forty-three students from the other teachers' college had passed the Grade II examination, twenty-four had been "referred," and nine had failed the examination.

All of the students in both groups, a total of eighty-three, were employed in the primary schools of Kano State.

Degree of Satisfaction with Teaching

Questionnaire item 1 asked the Post-Primary students to list the three items which gave them greatest satisfaction in teaching and to indicate on a five-point scale their general satisfaction with the teaching

profession. Responses to this question are shown in Table VII.

TABLE VII

SATISFACTION WITH TEACHING OF POST-PRIMARY STUDENTS

	None	Little	Some	Much	Great
General satisfaction with the teaching profession					
ATCK					
N	1	9	3	10	17
Per cent	2.5	22.5	7.5	25.0	42.5
TC					
N	1	8	9	9	16
Per cent	2.3	18.6	20.9	20.9	37.3

Sources of greatest satisfaction in teaching (Each respondent was requested to list three items)	ATCK	TC
Improving one's own knowledge	15	10
Observing and working with children	10	8
Teaching a given subject or subjects	5	0
Public service*	5	7
The payment	0	4
School activities and social life	0	10
No answer or could not classify answer	14	4

*Under this classification these statements were grouped: "To help my people." "Developing our nation." "Helping the progress of my country."

All students indicated their general degree of satisfaction, but fourteen of the ATCK respondents either did not list specific sources of satisfaction or listed items which could not be interpreted or classified. Four respondents from the other teachers' college did not list specific sources of satisfaction.

Responses to this question suggested generally a somewhat positive attitude toward teaching; however, the major factor in this positive attitude was seen to be the feeling that the act of teaching represented a personal gain which would presumably improve one's general condition.

The emphasis on social life associated with teaching by ten TC respondents was considered to reflect the rather isolated condition of these respondents. All were teaching in villages in which school associations and activities provided the major social contacts available.

Degree of Dissatisfaction with Teaching

The Post-Primary students were asked to list the three items which caused them greatest dissatisfaction in teaching and to indicate their general dissatisfaction with the teaching profession on a five-point scale. The responses to this question are shown in Table VIII.

In addition to the sources of dissatisfaction indicated in Table VIII, a variety of sources of dissatisfaction were listed once. These included tardiness and poor attendance of pupils, problems of discipline,

transport, and communication, as well as problems in teaching English. A candid statement of dissatisfaction was made by the respondent who wrote, "I don't like teaching--hard work."

TABLE VIII

DISSATISFACTION WITH TEACHING OF POST-PRIMARY STUDENTS

	None	Little	Some	Much	Great
General dissatisfaction with the teaching profession					
ATCK					
N	6	12	7	10	5
Per cent	15.0	30.0	17.5	25.0	12.5
TC					
N	1	5	11	12	14
Per cent	2.3	11.6	25.6	27.9	32.6

	ATCK	TC
	N	N
Source of greatest dissatisfaction in teaching (Each respondent was requested to list three items)		
Low salary	16	14
Lack of materials and equipment	13	13
No promotion	7	6
Poor accommodations	4	10
Treatment of the officials in authority	4	5
Lack of status and respect for the profession	1	2
Lack of parental cooperation	3	4
Lack of opportunity for further schooling	6	8
No answer	11	8

Table VIII indicates far greater dissatisfaction with teaching on the part of the respondents from the other teachers' college than on the part of the respondents from ATCK. This dissatisfaction may be related to the fact that fewer of the dissatisfied persons from the other teachers' college had found other employment than was the case in the Kano Post-Primary group. This point has been previously discussed in relation to the per cent of each of the Post-Primary groups currently employed in teaching.

Factors Related to Teachers' Leaving the Profession

In response to the questionnaire item, "Which of the following opportunities would cause you to leave teaching?" the responses shown in Table IX were obtained.

The responses shown in Table IX indicate that the majority of the respondents would leave teaching if either a more desirable job or further educational opportunities were available.

Table X indicates that 38 per cent of the ATCK Post-Primary students preferred primary school classroom teaching, while 62 per cent preferred a job which would take them out of the primary classroom. The Post-Primary students from the other college indicated the same preference to a stronger degree, with 7 per cent indicating preference for primary school classroom teaching, while 93 per cent preferred a position in education other than primary classroom teaching.

TABLE IX

OPPORTUNITIES WHICH WOULD CAUSE POST-PRIMARY STUDENTS TO LEAVE TEACHING

	Undecided		Yes		No	
	ATCK	TC	ATCK	TC	ATCK	TC
Opportunity to earn a larger salary						
N	14	5	9	12	17	26
Per cent	35	11.6	22.5	27.9	42.5	60.5
Opportunity for more rapid advancement						
N	5	4	26	20	9	19
Per cent	12.5	9.3	65	46.5	22.5	44.2
Opportunity for further schooling						
N	2	0	37	42	1	1
Per cent	5	--	92.5	97.7	2.5	2.3

	ATCK	TC
	N	N
Other:		
If an opportunity for further schooling is not approved	6	
Lack of concern and encouragement from the authorities	3	
Lack of financial support		5

TABLE X

EDUCATION POST PREFERRED BY POST-PRIMARY STUDENTS

Post	ATCK N	ATCK Per cent	TC N	TC Per cent
Classroom teaching at present level	15	37.5	3	7.0
Principal	4	10.0	13	30.2
Inspectorate*	14	35.0	26	60.5
Administrative Education Officer**	3	7.5	0	--
No Answer	4	10.0	1	2.3

*Positions in this category include Assistant Education Officer, Education Officer Grade II, Education Officer Grade I and Senior Education Officer.

**Positions in this category include Principal Education Officer, Deputy Chief Education Officer, Chief Education Officer and Chief Inspector of Education.

Rating of Present Teaching Performance

The Post-Primary students responded to a question requesting them to rate their present teaching performance in comparison with that of other teachers they knew or had observed. This rating was done on a five-point scale with designations of "Weak," "Below Average," "Average," "Good," and "Excellent." The ATCK students rated themselves as "Excellent" in eight cases, "Good" in twenty-six cases, and "Average" in six cases. Of the other group, eight rated themselves as "Excellent," thirty as "Good," and five as

"Average." These ratings indicate that the Post-Primary group enjoyed a satisfactory professional self-image.

In-service Activities Desired

In response to the questionnaire item inquiring as to what kinds of in-service help would be of greatest benefit, the responses shown in Table XI were given.

TABLE XI

IN-SERVICE ACTIVITIES DESIRED BY POST-PRIMARY STUDENTS

311096

	ATCK		TC	
Activity	N	Per cent	N	Per cent
Opportunity to make teaching aids	12	30	23	53.5
Courses in teaching methods and/or subjects	9	22.5	15	34.9
Demonstration teaching	4	10.0	0	--
Conference with former tutors	3	7.5	0	--
No answer	12	30.0	5	11.6

The responses shown in Table XI indicate that the in-service activities most desired by respondents from both schools were the opportunity to make teaching aids and the provision of courses in teaching methods and/or subjects. The greater percentage of respondents from the other teachers' college desiring opportunity to make teaching aids

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was considered to be a reflection of the fact that a larger number from this group were not teaching in locations which made the Kano-Project in-service centers, with their facilities for producing teaching aids, available to them.

In-service Activities Completed

In response to the questionnaire item asking respondents to indicate any in-service activity in which they had participated since completing their college education program, the responses indicated in Table XII were received.

TABLE XII

IN-SERVICE ACTIVITIES OF POST-PRIMARY STUDENTS

	ATCK		TC	
Activity	N	Per cent	N	Per cent
Vacation courses and workshops	5	12.5	4	9.3
Correspondence courses	4	10.0	4	9.3
Teacher in-service education courses (TISEP)	2	5.0	0	--
G. C. E. "O" Level* math and English	2	5.0	0	--
U. K. assisted course (art)	0	--	2	4.7
None	27	67.5	33	76.7

*Indicates General Certificate in Education, Ordinary Level. This examination is ordinarily given at the completion of the secondary school course.

Thirteen of the forty ATCK respondents, or 32 per cent, stated that they had completed, or were engaged in, in-service training. Twenty-seven, or 68 per cent, stated that they had not engaged in any in-service activities. Ten of the forty-three respondents from the other teachers' college, or 24 per cent, stated that they had engaged in in-service activities. Thirty-three, or 76 per cent, stated that they had not engaged in in-service activities.

Source of Greatest Personal Difficulty

The items which were listed more than once as the source of greatest personal difficulty during their college program by the two groups of Post-Primary students are shown in Table XIII.

TABLE XIII

SOURCE OF GREATEST PERSONAL DIFFICULTY OF POST-PRIMARY STUDENTS

	ATCK		TC	
Difficulty	N	Per cent	N	Per cent
Difficulty with a subject	10	29.4	5	11.6
Transportation	9	26.4	0	--
Finance	6	17.6	12	27.9
Change of tutors	4	11.8	0	--
Lack of tutors	0	--	12	27.9
Lack of textbooks	3	8.9	7	16.3
Accommodations	2	5.9	7	16.3

Table XIII indicates that the ATCK Post-Primary students regarded their greatest difficulty as being related to academic achievement in a subject area. This difficulty was regarded as being only slightly greater than the difficulty experienced with problems of transportation. The comparison group of students were evenly divided between regarding finance and lack of tutors as their greatest difficulty. It was possible that this group attributed their problems of achievement to lack of tutors, while the ATCK students attributed their problems of academic achievement to the subject itself. These two sources of difficulty might have possessed a closer relationship than Table XIII indicates.

Various personal problems were mentioned one time each. One respondent stated that he had no difficulty during the Post-Primary program; another offered a rather original source of difficulty when he wrote, "no rest of mind."

Students' Views of the Adequacy of the Academic Program

In response to the questionnaire item "To what subject or subjects do you feel too much time was devoted during your college program?" the subject most frequently cited by both groups was English language with twenty-four ATCK and thirty-three respondents from the other college listing it. This subject was followed in frequency of mention by arithmetic, which was listed by seventeen ATCK respondents and twenty-nine respondents from the other school.

In view of the pass rate on the English and arithmetic Grade II examinations, the judgments of the students in response to this question were not realistic.

In response to the question, "To what subject or subjects do you feel too little time was devoted during your college program?" far fewer subjects were listed by the respondents. The most frequently listed subject by ATCK respondents was science, with six people listing it. History and geography were most frequently mentioned by the respondents from the other teachers' college.

Educational Attainments of Post-Primary Students

Of the total group of seventy-eight ATCK Post-Primary students whose activities were reported, only the thirteen enrolled as full-time students had any training beyond their original three-year or five-year Post-Primary course. Of the thirteen full-time students, only the eight enrolled in the NCE program were receiving training beyond that ordinarily expected of Grade II teachers. Thus, eight respondents, or 10 per cent of the total group of seventy-eight, had training beyond that expected to be completed in the Post-Primary education program.

None of the respondents from the other college had further training toward higher certification in the period of slightly more than one year since the completion of their Grade II program.

Professional Holding Power of the ATCK Post-Primary Education Program

Combining those ATCK Post-Primary students who were attending school with those who were teaching produced a total of fifty-three, or 68 per cent, who had remained in the profession.

Summary

The Post-Primary education program was initiated at ATCK in January 1962. This study treated only the initial class of 121 students and the 31 students who enrolled in the second class in January 1963. These students were scheduled to complete the five-year program by December 1967, and would have completed at least one year of teaching prior to responding to the questionnaire.

The Post-Primary curriculum consisted of both general and professional components, with the same pattern of course work required of all students, with the exception of some choice of courses in stated subject areas during the fifth year of the course.

Post-Primary students were drawn primarily from Kano State. All those students treated in the study who were employed as teachers were teaching in Kano State.

Of the seventy-eight ATCK Post-Primary students who responded to the questionnaire, forty, or 51 per cent, were employed as primary school teachers; eighteen, or 23 per cent, were employed in business; thirteen, or 17 per cent,

were full-time students; and seven, or 9 per cent, were in military service. Of the full-time students, five were completing Grade II courses and eight were enrolled in NCE programs.

The rate of attrition during the course of the Post-Primary program was quite low, since approximately 96 per cent of the students who had enrolled continued to attend throughout the course and took the examinations at the end of the course.

The pass rate of 3 per cent and 31 per cent for the Grade II Teacher Examination taken by the Post-Primary ATCK classes of 1962 and 1963, respectively, was seen to carry clear implications with respect to the policy for selection and for retention in the program at ATCK. The same implications applied to the students of the other Grade II college, since their pass rate was only 28 per cent.

Post-Primary students' high self-ratings of their teaching performance and of the adequacy of their academic program could not be considered to be realistic, in terms of their Grade II examination results.

The Post-Primary program at ATCK has, however, increased yearly in educational effectiveness, as judged by examination results. The Post-Primary pass rate for the Grade II examination given in December 1968 was 42 per cent. As the program increases in effectiveness, it is possible that responses of future Post-Primary classes to the items reported in this chapter will be different in character from

the responses of the group treated.

Grade II examination results of these Post-Primary groups should also be viewed in comparison with results obtained in this examination in other parts of Nigeria. Burns, quoting from the Banjo Report, indicated a 1959 pass rate on the Grade II examination of about 45 per cent in the Western Region of Nigeria.[4] Viewed from this perspective, the results of the Post-Primary students at ATCK are close to the Nigerian average.

The reasons for leaving teaching stated by the nineteen former students employed in business were financial. All of the group indicated that they found as much or more satisfaction in their present employment as in teaching and none of the group wished to return to teaching. The great majority of the positions held by this group could be classified as minor clerical or service jobs.

Stated satisfaction with teaching on the part of the Post-Primary group was moderately positive. The major listed source of satisfaction was the opportunity to improve one's own knowledge. Teaching did not appear to be viewed as an opportunity to serve others or primarily as an opportunity to work with children.

The ATCK students did not express great dissatisfaction with teaching, and the two most frequently expressed

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[4]Donald G. Burns, African Education (London: Oxford University Press, 1965), pp. 156-157.

sources of dissatisfaction, low salary and lack of teaching materials and equipment, are not uncommon complaints from many teacher groups in many countries. The students from the other Grade II college expressed a markedly greater degree of dissatisfaction with teaching. This dissatisfaction may be related to the fact that this group was in its second year of teaching; those who began teaching after completing their teacher education course were still engaged in teaching, and those who were quite dissatisfied had not yet secured other employment. Those teachers in the ATCK group who were most acutely dissatisfied with teaching had probably already found other employment, since a number of them began teaching at an earlier date.

The students who were surveyed responded almost unanimously that they would leave teaching for further schooling, and the majority indicated that they would leave if opportunity for more rapid advancement were available. There was greater indecision on the part of the ATCK students as to whether they would leave teaching for a job which provided a higher salary than there was on the part of the students from the other Grade II college, although both groups gave a majority of negative answers to the question.

The job preferences indicated by both groups of students made clear that primary classroom teaching was not a universal vocational interest, since both groups indicated a preference for other positions in education rather than primary classroom teaching.

The in-service activities desired by the Post-Primary groups coincided with those desired by the NCE groups included in the study, since all indicated that opportunities to make visual aids and to attend courses in particular subjects and the teaching methods in those subjects were the activities they most desired.

A large majority of the Post-Primary educated students had taken part in no in-service work; 68 per cent of the Kano students and 76 per cent of the students from the other Grade II college had engaged in no in-service activity. Teacher In-Service Education Courses (TISEP) were available to these teachers and, since only two of the Kano students were enrolled in these courses, it appeared that the utilization of available in-service courses--at least those courses for which a fee was charged--was limited.

The sources of personal difficulty listed by the Post-Primary students from ATCK were similar to those of both NCE groups with respect to finance and transportation; however, only the Post-Primary groups listed difficulty with a subject area as a major difficulty. This difficulty was the one most frequently listed by the ATCK Post-Primary students. Students from the other Grade II college listed the lack of tutors as one of their two greatest sources of difficulty. As had been anticipated, instructional problems posed greater difficulty for the Post-Primary students than for the more advanced students.

Few of the Post-Primary students had attempted

further education. Of the Kano group, 10 per cent were involved in education beyond that expected of the Grade II levels. None of the students from the other Grade II college were involved in furthering their education.

The professional holding power of the Post-Primary program at ATCK was 68 per cent as compared with 100 per cent for the ATCK NCE students.

II. THE NCE STUDENTS

The Nigeria Certificate in Education Program (NCE) at ATCK was designed as a three-year course for students who had completed secondary school or who had completed a five-year teacher education course and had then passed the Grade II (Higher Elementary) Teacher Examination. At the completion of the three-year course students took the NCE examination, which qualified them to teach in both the first four years of secondary school and in Grade II teachers' colleges.

The NCE examinations in each subject area were prepared by a Board of Tutors composed of instructors from ATCK, Advanced Teachers' College, Zaria, and from the Institute of Education, Ahmadu Bello University, Zaria. This group was responsible for both administering and grading the examinations.

The NCE program at ATCK began in October 1965, with an initial enrollment of eighty-four. Enrollment in the NCE program from 1965 through 1968 is shown in Table XIV.

TABLE XIV

NCE ENROLLMENT AT ATCK 1965-1968

Year	1965	1966	1967	1968
First year students	84	96	135	150
Second year students		80	95	132
Third year students			76	94
Totals	84	176	306	376

With the 1968 intake, the NCE program reached the originally projected enrollment of 150 first year students per year. Intake in earlier years of the operation of the NCE program had to be smaller because of limitations in facilities until the new college physical plant was completed.

The NCE Curriculum

The NCE curriculum during the period treated in this report was composed of three parts: (1) General, (2) Professional, and (3) Specialized. The general part of the program consisted of learning experiences deemed so important that every student participated in them. The purpose of the general part of the program was to provide a broad foundation of basic learnings upon which specialized learnings could be built. The professional part of the program was composed of learning experiences which related

directly to teaching. The purpose of this part of the program was to enable the student to develop the practical proficiencies and the professional knowledge necessary for effective teaching. The specialized part of the curriculum enabled the students to study in two fields of knowledge. The purpose was to provide the student with specialized competence in two subject areas in which he would later teach.

The curriculum was organized in courses, each course dealing with a subject matter area and lasting for one school term of approximately twelve weeks. The unit of measure used in evaluating different courses was the term point. A term point was granted for successfully completing a course which met for one forty-five minute period[6] each week during a term. Thus, a course in mathematics which met for three forty-five minute periods of lecture and discussion each week was called a three point course. A course in science which met for two class periods and two laboratory periods each week was also called a three point course.

The point unit was established to provide a means for measuring the relative amounts of time devoted to different subject areas. Some subject areas required more

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[6]Until the 1968-1969 school year, periods were fifty minutes in length. The change was made to standardize the length of periods in the NCE and Post-Primary programs.

laboratory or field work; therefore, the number of periods devoted to a certain subject area was not an accurate measure to use. Each student took several different courses each term and it was desirable to have a workable unit of measure to determine the relative weight of the different courses.

The normal student course load was approximately seventeen class periods per week. A student was expected to spend approximately two periods in out-of-class preparation for each period spent in class. Each student's schedule of classes was arranged for him. He was responsible for arranging his own out-of-class study schedule. Each student selected two subjects, called major fields, in which he wished to specialize and one subject field, called a minor, in which he would also take courses, in addition to those courses which were required of all students. The areas from which a student was permitted to select his two major fields were Arabic, art, English, geography, history, mathematics, and physical education. Beginning in the fall term of 1969 a major in science (physics and chemistry) was scheduled. A student had the option of selecting his minor field of study from any of the areas which were offered as major areas, or he was at the time of this study permitted to minor in drama, librarianship, science, or Hausa.

Circumstances, upon occasion, made it necessary for the principal and staff to modify the choice of majors and

minors, but to the greatest possible degree each student was permitted to select his own fields of study.

In March 1968 a new section of the NCE program was initiated. The purpose of this section was the preparation of commercial education teachers for secondary school commercial education programs. In addition to the general courses and the professional education courses the commercial education section offered economics, bookkeeping, office procedures, shorthand, typing, commerce, and commercial law. The teaching methodology for each of these subject areas was treated as a part of the subject. Table XV outlines these three major parts of the NCE curriculum.

Kano NCE Students Treated in This Study

Only the original class of eighty-four NCE students who began their three-year course at ATCK in October 1965 were considered in this study, since they were the only NCE class which had completed their program by July 1968.

Of the eighty-four students who were originally enrolled in the course seventy-six students, or 90 per cent, completed the course. At the end of the first year of the course four students were dropped because of low scholastic standing. During the second year of the course one student died. One student was injured in an automobile accident and was forced to withdraw from school for the year; this student returned to the college and completed her NCE course with the 1969 graduating class. One student was

TABLE XV

NCE CURRICULUM

General Courses*	Point Units
English	12
Geography	4
History	6
Humanities	7
Mathematics	4
Physical Education	3
Science	6
Social and Political Life in Nigeria	3
Professional Courses	
Introduction to Education**	3
Human Development Education	6
Educational Psychology	6
Administration and Organization of Nigerian Schools	3
Curriculum and Instruction (General Methods)	5
Testing and Evaluation	3
Supervised Observation	2
Teaching Practice	16
Seminar (Following teaching practice)	2
Specialized Courses	
First major field	35
Second major field	30
Total	156

*Students were excused from some courses if their records and test performance indicated that they did not need the course, with the exception that all students were required to take 12 point units in English.

**Required only for those students who had no teaching experience.

dropped during the second year when she was notified that she had not passed one of the examinations in the Grade II examination prior to entering the NCE program. One student withdrew at the end of the second year to accept employment.

Of the seven living NCE students who had not completed the course by June 1968, questionnaire responses were received from four, or 57 per cent. One of these students as noted above was still enrolled at ATCK and subsequently completed the NCE course in June 1969. Two others were employed as teachers, one in a primary school and one in a Grade II teachers' college. Both expressed a desire to return to ATCK to complete their NCE program. Neither expressed any animosity toward the institution as a result of their having been dropped because of low scholastic standing. Both stated that their personal situation at the time was the inhibiting factor in their college progress. The fourth former student was employed as a Welfare Officer for Athletics in his state. He stated that he was doing what he wished to do and that he did not wish to continue his NCE program, either at ATCK or elsewhere.

Of the seventy-six students who completed the course in June 1968, seventy-four students, or 97 per cent, responded to the questionnaire either by mail or through a personal interview. (One response was received by mail in June 1969, too late to be included in tabulations other than tabulations of factual material for the study.)

A questionnaire was not mailed to the girl who was studying on a scholarship in Australia, because her mailing address was supplied too late to include her responses, other than factual responses, in this study. This student's husband supplied the necessary factual information about her by letter. Thus, of seventy-five questionnaires sent to graduates, seventy-four, or 99 per cent, were returned.

Other NCE Students Treated in This Study

For purposes of comparison, the names of fifty NCE students who completed their course in June 1968 were selected at random from the class list of a neighboring Advanced Teachers' College. These students were mailed questionnaires. Students who did not respond to the mail questionnaire were interviewed when possible. Forty-four of the fifty students, or 88 per cent, completed questionnaires. (Two of these questionnaires were received too late to be included in this study.)

For each item reported in this section, comparisons were made between the responses of the ATCK students and the responses of the students from the neighboring Advanced Teachers' College. The responses of the students from ATCK have been identified in tables throughout the chapter as Kano NCE; responses of students from the other Advanced Teachers' College have been identified as NCE.

The purpose of the comparison between these two groups of NCE students was to indicate to what degree the

responses of the ATCK NCE students were similar to or different from the responses received from the other group of NCE students.

State of Origin and State of Employment of NCE Students

The NCE students treated in the study were drawn from all six states of Northern Nigeria; they were employed in approximately the same proportions in all six states. Table XVI shows the states of origin and the states of present employment of both groups of NCE students.

Table XVI indicates that the largest percentage of the NCE enrollment in both of the Advanced Teachers' Colleges was drawn from Benue-Plateau and Kwara States. An effort was made to enroll students from all six states; however, there were far more applicants--and far more qualified applicants--from these two states. The larger number of applicants from these states was a result of a greater number of secondary school and Grade II teachers' college educated youth in these two states.

Sex and Age of Respondents

The seventy-six ATCK students were composed of two females and seventy-four males. The forty-two students from the other Advanced Teachers' College were composed of three females and thirty-nine males.

The average age of the ATCK students was approximately twenty-six, while the average age of the

TABLE XVI

STATES OF ORIGIN AND EMPLOYMENT OF NCE STUDENTS

	Origin				Employment			
	Kano NCE		NCE		Kano NCE		NCE	
	N	Per cent	N	Per cent	N	Per cent	N	Per cent
Benue-Plateau	14	18.4	10	23.4	17	23.9	12	28.6
Kano	4	5.3	6	14.3	10	14.1	6	14.3
Kwara	29	38.2	20	47.6	16	22.5	18	42.9
North East	14	18.4	1	2.4	11	15.5	0	--
North Central	12	15.8	2	4.8	11	15.5	3	7.1
North West	3	3.9	3	7.1	6	8.5	3	7.1
Total	76	100.0	42	100.0	71*	100.0	42	100.0

*Four students were employed by the Interim Common Services Agency. One student was abroad on a scholarship.

students from the other college was approximately twenty-eight years.

Previous Schooling of NCE Students

Twenty-one of the Kano NCE students were secondary school graduates and fifty-five had completed Grade II courses. Eleven of them had attended a secondary school and had then taken a Grade II teacher education course. Fourteen of the students from the other college were secondary school graduates and twenty-eight had completed Grade II courses. Five people had attended a secondary school and had then taken a Grade II teacher education

course.

Teaching Experience of NCE Students

The average number of years of teaching experience for each of the two groups of NCE students was slightly more than four years. Ten students in each of the two groups had no teaching experience prior to their completion of the NCE program.

Present Activities of NCE Students

With the exception of one girl who was studying infant (elementary) teaching methods in Australia on a United Kingdom Scholarship, all the ATCK NCE students were employed in an educational capacity. Of the total of seventy-five thus employed, seventy-three were engaged in classroom teaching, one was in the Inspectorate Division of the Kano State Ministry of Education, and one was working as the graphic artist for the Schools Broadcast Unit, Kaduna.

All of the students from the other Advanced Teachers' College were employed in an educational capacity, with the exception of one person who was employed in the Community Development Section of the Kano State Ministry. Of the total of forty-one employed in an educational capacity, forty were engaged in classroom teaching and one was employed as an inspector in the Kano State Ministry of Education.

The person employed as a Community Development Assistant stated that he preferred his present job to classroom teaching and that he believed that his present job gave him greater satisfaction than he would derive from teaching.

Table XVII indicates the category of school in which each subject was employed.

TABLE XVII

CATEGORY OF SCHOOL EMPLOYMENT OF NCE STUDENTS

Category	Kano N	Kano Per cent	NCE N	NCE Per cent
Craft School	9	11.8	0	--
Secondary School	25	32.9	19	45.2
Teachers' College	37	48.8	19	45.2
Other:				
Inspectorate Division, Kano State	1	1.3	1	2.4
Commercial College	1	1.3	2	4.8
Kaduna Polytechnic Development Center	1	1.3	0	--
Schools Broadcast Unit	1	1.3	0	--
Scholarship	1	1.3	0	--
Community Development, Kano State	0	--	1	2.4
Total	76	100.0	42	100.0

Of the total group of 118 NCE students from the two Advanced Teachers' Colleges fifty-six, or 47 per cent, were employed in teachers' colleges and forty-four, or 37 per cent, were employed in secondary schools.[5]

Degree of Satisfaction with Teaching

The NCE students were asked to indicate on a five-point scale their degree of satisfaction with teaching. They were also asked to list the three items which gave them greatest satisfaction in teaching. Their responses are shown in Table XVIII.

These responses indicated a positive attitude toward teaching. The major focus of satisfaction was upon working with, observing, and learning more about children.

Under the classification "Public Service" the following statements were grouped: "Building the nation," "Contribution towards improving the society," and "Helping to develop tomorrow's leaders." Any item listed more than twice was included in Table XVIII. Other items of satisfaction mentioned were better working hours and longer vacations compared with other jobs, discipline, the availability of textbooks, and non-involvement in corruption.

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[5]Hereafter in this report, data are based upon the responses of seventy-two ATCK students and forty-one students from the other Advanced Teachers' College.

TABLE XVIII

SATISFACTION WITH TEACHING
OF NCE STUDENTS

Degree of Satisfaction with the Teaching Profession	None	Little	Some	Much	Great
Kano NCE					
N	0	0	10	31	31
Per cent	0	0	13.9	43.05	43.05
NCE					
N	0	2	8	19	12
Per cent	-	4.9	19.5	46.3	29.3

Sources of greatest satisfaction in teaching (Each respondent was requested to list three items)	Kano NCE	NCE
Observing and working with children	45	21
Improving one's own knowledge	21	14
Cooperation with staff and associates	16	0
Teaching a given subject or subjects	15	2
Public Service	6	8
Salary	4	7
Sports	6	2
Security	4	5
No answer	2	3

Degree of Dissatisfaction with Teaching

The NCE students were asked to list the three items which caused them greatest dissatisfaction in teaching and to indicate on a five-point scale their general degree of dissatisfaction with the teaching profession. The responses, which in many cases might have been grouped under "Poor conditions of service," have been listed separately if mentioned more than twice by the respondents in order to give as clear a picture as possible of the specific items which caused dissatisfaction.

A clear contrast was noted in the degree of dissatisfaction caused by a feeling of lack of status and prestige of the profession between the NCE groups and the Post-Primary groups. As noted in the preceding section of this chapter, lack of status and prestige was listed only three times by the two Post-Primary groups; it was listed a total of nineteen times by the two NCE groups.

Table XIX shows the causes of dissatisfaction listed by the two NCE groups.

Table XIX indicates that the majority of the Kano NCE's had either no dissatisfaction or little dissatisfaction with the teaching profession. Approximately half of the NCE students from the other college reflected the same attitude.

TABLE XIX

DISSATISFACTION WITH TEACHING
OF NCE STUDENTS

Degree of dissatisfaction with the teaching profession	None	Little	Some	Much	Great
Kano NCE					
N	10	29	14	10	9
Per cent	13.9	40.3	19.4	13.9	12.5
NCE					
N	8	12	12	6	3
Per cent	19.5	29.2	29.2	14.6	7.3

Sources of greatest dissatisfaction in teaching (Each respondent was requested to list 3 items)	Kano NCE	NCE
Poor conditions of service	19	12
Lack of status and respect for the profession	13	6
Lack of equipment and textbooks	15	11
Authorities' lack of concern for NCE's status	14	5
Salary	8	11
No promotion and/or chance of progress	14	0
Discipline problems	7	6
Failure to understand pupils	7	0
Lack of staff cooperation	5	2
Accommodations (Lack of staff quarters)	3	5
Constant transfers	3	3
No answer	6	8

Factors Related to NCE Teachers' Leaving the Profession

In response to the question, "Which of the following opportunities would cause you to leave teaching?" the responses shown in Table XX were obtained.

TABLE XX

OPPORTUNITIES WHICH WOULD CAUSE NCE STUDENTS TO LEAVE TEACHING

	Yes		No		Undecided	
	Kano NCE	NCE	Kano NCE	NCE	Kano NCE	NCE
Larger salary						
N	9	5	42	27	21	9
Per cent	12.5	12.2	58.3	65.8	29.2	22.0
More rapid advancement						
N	35	13	19	19	18	9
Per cent	48.6	31.7	26.4	46.3	25.0	22.0
Further schooling						
N	65	40	5	1	2	0
Per cent	90.3	97.6	6.9	2.4	2.8	-

Other	Kano NCE	NCE
Continuing poor conditions of service	7	4
Lack of promotion	0	4

The responses given in Table XX indicate that the great majority of the NCE students in both groups would leave teaching primarily for further schooling and that

many would leave teaching for more rapid advancement in another job.

Educational Post Preferred

In response to the question, "If salary were not a consideration, what post in education would you most like to fill?" the responses indicated in Table XXI were given.

TABLE XXI

EDUCATIONAL POST PREFERRED BY NCE STUDENTS

	Kano NCE		NCE	
Post	N	Per cent	N	Per cent
Classroom teaching	33	45.8	20	48.8
Principal	3	4.2	5	12.2
Inspectorate*	20	27.8	7	17.1
Administrative Education Officer**	9	12.5	6	14.6
No answer	7	9.7	3	7.3

*Positions in this category include Assistant Education Officer, Education Officer Grade II, Education Officer Grade I, and Senior Education Officer.

**Positions in this category include Principal Education Officer, Deputy Chief Education Officer, Chief Education Officer, and Chief Inspector of Education.

Table XXI indicates that almost half of the ATCK NCE students preferred to continue in classroom teaching. If it were assumed that those who indicated a preference for an inspectorate position also wished to continue in a teaching position, then 74 per cent could be considered

to prefer classroom teaching.

Institution Preferred for Further Training

In response to the question, "If you wish to attempt further schooling, what are your first and second choices of schools you would like to attend?" the responses which are shown in Table XXII were received.

The institutional relationship between ATCK and Ohio University was reflected in the first choices of a university for further study made by the ATCK students. Twenty-seven students, or 38 per cent, chose Ohio University. Ahmadu Bello University was most frequently indicated as a first choice by the NCE's from the other college, with twelve, or 30 per cent of the group indicating this school.

The most significant aspect of the responses to this question was the clear preference for degree training abroad, rather than in Nigeria. Of the ATCK students who listed a first choice thirty-nine, or 58 per cent, stated preference for a specific university or any university abroad. Of the NCE students from the other college who listed a first choice twelve, or 35 per cent, stated preference for a specific university or any university abroad. If those who stated as a first choice "any university, Nigeria or abroad" were assumed to prefer a university abroad, the percentage having preference for university training abroad would then be

TABLE XXII

SCHOOLS PREFERRED FOR FURTHER EDUCATION BY NCE STUDENTS

	First Choice		Second Choice	
	Kano NCE	NCE	Kano NCE	NCE
School	N	N	N	N
Ohio University	27	4	4	2
Any University, Nigeria or Abroad	16	9	8	9
Any University Abroad	10	6	1	1
Ahmadu Bello University	10	12	13	4
University of Lagos	1	0	7	3
University of Ibadan	1	0	6	7
University of Nigeria (Nsukka)	0	0	2	0
Gordon College (USA)	0	1	2	1
Australian University*	2	0	1	0
Oxford University	0	1	0	0
University of Ife	0	1	0	0
No answer	5	7	28	14

*Listed as Australian University of Physical Education.

82 per cent for the ATCK students and 62 per cent for the students from the other college.

Degree to Which NCE Students Were Teaching in Their Major Areas

In response to a question asking students to indicate the amount of their time spent teaching in their

major subject areas, the responses indicated in Table XXIII were received.

This table indicates that more than one-half of the NCE students in both groups were spending 90 to 100 per cent of their teaching time in their major subject areas of education.

The two NCE students from Kano and the one NCE student from the other college indicated, in written comments on their questionnaires, that they were presently teaching full-time in areas other than their majors, because of teacher shortages in their schools. This teaching assignment outside the major area was not expected to be permanent.

TABLE XXIII

PER CENT OF NCE STUDENTS TEACHING IN THEIR MAJOR AREAS

Per cent of time in major areas	0	25	50	75	90	100
Kano NCE N	2	4	5	18	9	34
NCE N	1	1	3	11	10	15

Table XXIII shows that the great majority of NCE students were teaching in the subject areas in which they specialized during their college education program.

In-service Activities Desired

In response to a question as to what kinds of in-service activity would be of greatest benefit, the responses which are shown in Table XXIV were given.

TABLE XXIV

IN-SERVICE ACTIVITIES DESIRED BY NCE STUDENTS

Activity	Kano NCE N	NCE N
Refresher courses and/or notes in major subjects	25	19
Provision of audio visual aids	20	9
Conferences with former tutors	0	4
No answer	12	5

Any activity listed more than twice was included in Table XXIV. A variety of other activities were suggested once. A number of these single suggestions centered around some plan which would lead toward a degree. It was judged from the responses made to the question that the matter of further educational activity leading toward a university degree was the major concern of the NCE students in both groups.

In-service Activities Completed

The opportunity of the NCE groups to complete any in-service activities was limited, since they had been engaged in teaching, after completing their NCE course, for slightly less than one school year.

Table XXV indicates the specific in-service activities which had been engaged in by both groups of NCE students since the completion of their NCE course in June 1968.

With the exception of the four people engaged in correspondence work, all the in-service activities listed were of from one week to one month in duration.

TABLE XXV

IN-SERVICE ACTIVITIES ENGAGED IN BY NCE STUDENTS

	Kano NCE		NCE	
Activity	N	Per cent	N	Per cent
United Kingdom Assisted Course	9	12.5	2	4.9
Athletic Coaching Course, Ahmadu Bello University	2	2.8	0	-
Correspondence courses	4	5.6	0	-
Modern Mathematics Conference, Ibadan University	1	1.4	0	-
Physical and Sports Demonstration	1	1.4	0	-
None	55	76.3	39	95.1

Fifty-five, or 76 per cent, of the ATCK students had engaged in no in-service activity since completing their NCE course. Table XXV indicates that seventeen, or 24 per cent of the ATCK group had been involved in some in-service activity. The table indicates that thirty-nine, or 95 per cent, of the students from the other Advanced Teachers' College had been engaged in no in-service activity, while two persons, or 5 per cent, had been engaged in some in-service activity.

Students' Views of the Adequacy of the NCE Program

In response to the questionnaire item "To what subject or subjects do you feel too much time was devoted during your education program?" the subject most frequently cited by both groups was history, which was cited fifteen times by Kano NCE students and fourteen times by NCE students from the other college. Next in frequency of listing by ATCK students was general education, which was mentioned by fourteen respondents.

In response to the question "To what subject or subjects do you feel not enough time was devoted during your education program?" the most frequently mentioned subjects by the Kano NCE's were English and geography, which were each mentioned ten times. Sixteen of the NCE students from the other Advanced Teachers' College stated that no subjects were underemphasized. In general, far

fewer subjects were listed by both groups as being under-emphasized than were listed as being overemphasized.

In response to the question, "What subject which you did not have opportunity to study during your college program would you have liked to study?" the most frequent response by the ATCK students was science (including biology, physics, and chemistry), with twenty-two respondents mentioning either science or a specific science area. Economics was second in the frequency of listing of the ATCK students with ten people listing it. French was most frequently mentioned by the students of the other Advanced Teachers' College with ten people listing it; next in the frequency of listing was mathematics with eight respondents listing it.

In response to the question, "In which subject area do you feel your teacher education program best prepared you for teaching?" both groups of NCE students listed one of their major areas of study.

The related question, "In what subject area do you feel your teacher education program least prepared you for teaching?" was answered by twenty-six ATCK students as "None." Other answers were varied, but no subject area was named more than five times. The students from the other college followed the same pattern in answering this question with sixteen persons responding "None." No particular subject was mentioned more than three times by the NCE's from the other Advanced Teachers' College.

To another question which requested the respondents to rate their own knowledge of subject matter on a five-point scale the results which are shown in Table XXVI were obtained.

TABLE XXVI

NCE STUDENTS' EVALUATION OF THEIR KNOWLEDGE OF SUBJECT MATTER

	Weak	Below Average	Average	Good	Excellent
Kano NCE					
N	0	0	6	55	11
Per cent	-	-	8.3	76.4	15.3
NCE					
N	0	0	3	25	6
Per cent	-	-	7.3	78.1	14.6

From the evaluations indicated in Table XXVI and from the responses given related to the adequacy of educational experience during the college course, it was seen that the NCE students from both colleges found their academic background adequate and satisfactory for their present positions.

Sources of Greatest Personal Difficulty During Their College Program

Table XXVII indicates the items which were listed more than twice as the source of greatest personal difficulty by the two groups of NCE students.

TABLE XXVII

SOURCES OF GREATEST PERSONAL DIFFICULTY OF NCE STUDENTS

Difficulty	Kano NCE		NCE	
	N	Per cent	N	Per cent
Accommodation	25	37.3	20	48.8
Finance	17	25.4	12	29.3
Transportation	10	14.9	1	2.4
Lack of texts and tutors	7	10.4	0	-
Subject area	4	6.0	3	7.3
No answer	4	6.0	5	12.2
Total	67	100.0	41	100.0

Table XXVII indicates that the source of greatest difficulty encountered by both groups of NCE students was accommodation, with finance as the second greatest source of difficulty. Twenty of the thirty-six respondents, or 56 per cent, from the other Advanced Teachers' College cited accommodation as their major personal difficulty. The ATCK students responded that accommodations represented their major personal difficulty in twenty-five of sixty-three, or 40 per cent, of the cases.

The other Advanced Teachers' College provided a number of hostel accommodations, while ATCK provided no housing of any kind at the college site during the time the NCE students involved in this study were in attendance.

However, in assessing this area it should be noted that ten Kano NCE students listed transportation as a chief difficulty while only one student from the other Advanced Teachers' College listed it. If it were considered that transport and accommodation were two facets of the same problem; then by grouping these two sources of difficulty, the comparisons shown in Table XXVIII result.

TABLE XXVIII

COMPARISON OF TWO GROUPS OF NCE STUDENTS' DIFFICULTIES WITH ACCOMMODATION AND TRANSPORTATION

	Kano NCE N	NCE N
Total responses	63	36
Difficulty with accommodation and transportation	35	21
Per cent of total	56.0	58.0

Table XXVIII indicates that when difficulty with accommodation and transportation were considered as facets of a single problem, there was agreement between the two NCE groups with respect to the percentage of difficulty caused by these factors. The fact that the other Advanced Teachers' College provided boarding facilities while ATCK provided neither cafeteria nor dormitory facilities at the time of this study, had not resulted in a different pattern

of difficulties for the two groups of students.

Educational Attainments of the NCE Groups

The results of the NCE Examination for the total 1968 third year group from each of the Advanced Teachers' Colleges are shown in Table XXIX.

TABLE XXIX

1968 NCE EXAMINATION RESULTS

Result	Kano NCE N	Kano NCE Per cent	NCE N	NCE Per cent
Distinction*	4	5.3	11	12.2
Pass	61	80.3	59	65.5
Referred**	9	11.8	15	16.7
Failed	2	2.6	5	5.6
Totals	76	100.0	90	100.0
Per cent pass		85.6		77.7
Per cent pass and referred		97.4		94.4

*Distinction indicates an "A" rating in a particular subject or subjects.

**Referred indicates that a student has failed one or more of the subject examinations in the total set of subjects which comprise the NCE Examination. To be referred confers the privilege of taking the failed examination again in December; if the subject examination were again failed, the total set of examinations would be retaken the following June.

The results of the December 1968 "re-sit" examination for those students who failed or were referred in one or more subjects are shown in Table XXX.

TABLE XXX

NCE RE-SIT EXAMINATION RESULTS
DECEMBER 1968

Result	Kano NCE	NCE
Number eligible for examination	11	20
Number passed	8	8
Number failed	1	4

By January 1969 seventy-three, or 96 per cent, of the seventy-six Kano NCE's had passed the NCE Examination. Of the two students who failed the original examination in June 1968, one person did not retake the examination in December. The other person who failed the examination in June retook it in December but again failed. One person who was referred in the examination in June did not retake the examination in December.

By January 1969 seventy-eight of the ninety NCE students from the other Advanced Teachers' College, or 87 per cent, had passed the NCE Examination. Eight persons had not retaken the examination.

Holding Power of the NCE Education Program

The holding power of the NCE program at ATCK was quite effective in comparison with the holding power of the same program at the other Advanced Teachers' College. Table XXXI indicates the records of the two Advanced

Teachers' Colleges for a given year in this respect.

TABLE XXXI

HOLDING POWER OF THE NCE EDUCATION PROGRAMS

	1965 Intake	1968 Graduates	Per cent
Kano NCE	84**	76	90.0
NCE	118*	90	76.0

*A number of students were dropped from the college following a student demonstration during the second year of the program. Two women who withdrew for reasons of health returned to complete their course.

**One student who withdrew for reasons of health returned and completed her course. One student is deceased.

Some students from the other Advanced Teachers' College withdrew from the college voluntarily to enter degree programs at Ahmadu Bello University, or to enter other non-degree programs. For example, one member of the 1965 intake at the other Advanced Teachers' College completed her NCE education course with the 1969 ATCK graduating class.

Of the seven living members of the group who enrolled at ATCK in 1965, one person completed the NCE course with the Kano graduating class of 1969. The other six people had not engaged in further educational work elsewhere.

Evaluation of Practice Teaching Experiences

Table XXXII indicates the responses of both groups of NCE students to five questions concerning evaluation of certain aspects of their practice teaching experience.

A good deal of the marked variation in evaluation of items in Table XXXII is subject to explanation. In general both groups of NCE students viewed their academic preparation for practice teaching as adequate. The two students from ATCK who indicated little preparation for the subjects taught noted on their questionnaires that they did not do their practice teaching in their major fields. Because of acute teacher shortage in the school in which they were placed, they were assigned to teach other subjects.

Much the same situation applied to the assessment of the helpfulness of the classroom teacher. One respondent indicated on his questionnaire, "I was the classroom teacher." Because of the teacher shortage at the time these students did their practice teaching, many of them were totally, or almost totally, responsible for full-time classroom teaching.

With reference to the assessment of the helpfulness of the college tutor, the ATCK students reflected their dissatisfaction rather strongly. As was indicated in the responses to the question on changes and recommendations for teaching practice, shown in Table XXXIV, this

TABLE XXXII

EVALUATION OF PRACTICE TEACHING
BY TWO GROUPS OF NCE STUDENTS

	None	Little	Some	Much	Great
To what degree were you academically prepared for the subjects you taught?					
Kano NCE					
N	0	2	6	42	22
Per cent	-	2.8	8.3	58.3	30.6
NCE					
N	0	0	0	18	23
Per cent	-	-	-	43.9	56.1
How helpful was the teacher in whose classroom you did your practice teaching?					
Kano NCE					
N	11	15	20	18	8
Per cent	15.3	20.8	27.8	25.0	11.1
NCE					
N	6	9	9	13	4
Per cent	14.6	22.0	22.0	31.7	9.7
How helpful to you was the observation of your college tutor?					
Kano NCE					
N	17	11	16	14	14
Per cent	23.7	15.3	22.2	19.4	19.4
NCE					
N	1	7	11	11	11
Per cent	2.5	17.1	26.8	26.8	26.8

TABLE XXXII (Continued)

	None	Little	Some	Much	Great
To what degree did you have the necessary texts, reference books, and aids for the subjects taught?					
Kano NCE					
N	1	17	21	24	9
Per cent	1.4	23.7	29.1	33.3	12.5
NCE					
N	0	7	19	8	7
Per cent	-	17.1	46.3	19.5	17.1
Of how much value was your total practice teaching experience to you?					
Kano NCE					
N	1	0	5	31	35
Per cent	1.4	-	6.9	43.1	48.6
NCE					
N	0	2	1	19	19
Per cent	-	4.9	2.5	46.3	46.3

dissatisfaction was based on a feeling of isolation and lack of contact with college instructors rather than with dissatisfaction with the quality of supervision which was provided. The attitude of both NCE groups toward the total value of the practice teaching experience was positive.

Greatest Difficulty During Practice Teaching

Table XXXIII indicates the areas of greatest difficulty encountered by students during their practice

teaching.

TABLE XXXIII

SOURCES OF GREATEST DIFFICULTY
DURING PRACTICE TEACHING

Sources of Difficulty	Kano NCE N	Kano NCE Per cent	NCE N	NCE Per cent
Financial (Delayed payment of allowances)	31	60.8	2	6.9
Lack of texts and equipment	7	13.7	11	37.9
Lack of contact with tutors	5	9.9	7	24.15
Accommodation	4	7.8	7	24.15
No answer	4	7.8	2	6.9
Total	51	100.0	29	100.0

With the exception of three ATCK students who stated that they experienced no major difficulty during their practice teaching, no source of difficulty, other than those shown in Table XXXIII, was listed by either group more than twice.

It was unfortunate that the delayed payment of allowances to the ATCK students caused so much inconvenience that this difficulty overshadowed all other problems. Discounting this major financial difficulty, the sources of difficulty were similar for the two groups.

Students' Recommendations for the Improvement of Practice Teaching

Table XXXIV indicates all the recommendations for the improvement of practice teaching procedures which were mentioned more than twice by either group of NCE students.

TABLE XXXIV

NCE STUDENTS' RECOMMENDATIONS FOR THE IMPROVEMENT OF PRACTICE TEACHING

	Kano NCE		NCE	
Recommendation	N	Per cent	N	Per cent
More frequent supervision by tutors	30	46.9	17	45.9
Allowances paid prior to practice teaching	14	21.9	7	18.9
Shorter period of practice teaching	2	3.1	5	13.6
Two or more practice teaching sessions provided	5	7.8	0	-
Students permitted to choose teaching location	4	6.2	0	-
No answer	9	14.1	8	21.6
Total	64	100.0	37	100.0

The chief dissatisfaction with practice teaching was lack of what students' regarded as frequent and adequate supervision by, and communication with, their college instructors. Many of the students recognized logistical difficulties involved in providing more frequent supervision, and recommended that in order to alleviate this

problem, students be placed in schools as accessible to the mother institution as possible for their student teaching practice.

Students' and Principals' Group and Individual Ratings of Students' Teaching Efficiency

At the time questionnaires were mailed to NCE students, a one page questionnaire with cover letter, (Appendix B), was mailed to the principal of each institution in which an NCE student included in the study was employed.

The purpose of this questionnaire was to provide a means of evaluating the success of the NCE program, since one standard for judgment of the program was the determination of how satisfactory principals considered NCE graduates to be as teachers.

The individual ratings of both groups of NCE students and of their principals have been included as Appendix D. Kano NCE students and their principals assigned the same rating to the student in thirty-two cases. The student's self-rating was higher than the principal's rating in twenty-seven cases, while the principal's rating was higher than the student's self-rating in thirteen cases. Students and principals from the other college assigned the same rating to the student in ten cases. The student's self-rating was higher than the principal's rating in eight cases, while the principal's rating was higher than the student's self-rating in another eight cases.

Table XXXV indicates the group totals of the ratings assigned by the NCE students and by their principals.

TABLE XXXV

STUDENTS' AND PRINCIPALS' GROUP RATINGS OF STUDENTS' TEACHING EFFICIENCY

	Weak	Below Average	Average	Good	Excellent
Students					
Kano NCE					
N	0	0	21	46	5
Per cent	-	-	29.2	63.9	6.9
Principals					
Kano NCE					
N	0	5	25	37	5
Per cent	-	6.9	34.8	51.4	6.9
Students					
NCE					
N	0	0	13	25	3
Per cent	-	-	31.7	61.0	7.3
Principals					
NCE					
N	0	1	8	14	3
Per cent	-	3.8	30.8	53.8	11.6

The students tended to rate themselves somewhat higher in the "average" and "good" categories than did their principals. The principals, however, made use of the "below average" category, while no student made use of this rating.

The total group ratings for the NCE students indicated that the teaching performance of 58 per cent of the Kano NCE's was regarded as either "excellent" or "good" by their principals and 65 per cent of the other NCE group was so regarded. The Kano NCE students were regarded as "average" or better by their principals in 93 per cent of the evaluations; the members of the NCE group from the other college were so regarded in 96 per cent of the evaluations.

Summary

The Nigeria Certificate in Education Program was initiated at ATCK in October 1965. This study treated only the initial class of eighty-four students, seventy-six of whom completed the course in June 1968.

The NCE curriculum has been described as containing three major areas: general studies, professional studies, and specialized studies including commercial education. The subjects included in each of the major areas have been indicated. The course provided for the selection of two majors and one minor by each student. The curriculum, at the time of this study, was continuing to expand by the addition of both major and minor areas of study.

NCE students were drawn from all six northern Nigerian states and were employed, in approximately equal numbers, by these states.

Approximately two-thirds of the NCE students had completed Grade II teacher training before entering the

NCE program, and approximately one-third had completed secondary school prior to entering the NCE program.

About one student in seven had no teaching experience prior to completion of the NCE program. The average amount of teaching experience was slightly more than four years.

The holding power of the NCE program during the first year of employment after completion of the college program was one-hundred per cent. Of the seventy-six people who completed the course in June 1968 at ATCK, one was attending school and the remaining seventy-five were employed in educational activities. Of these seventy-five, seventy-three were engaged in classroom teaching.

Of the seventy-three who were teaching, thirty-seven or 51 per cent were employed in teachers' colleges. Twenty-five were employed in secondary schools, nine were employed in craft schools and four were employed by other educational institutions.

The degree of satisfaction with teaching was high and the source of satisfaction in teaching most frequently listed was working with students.

The NCE students were aware of the disadvantages of the profession. Their dissatisfaction focused upon poor conditions of service, lack of status and respect for the teaching profession, and lack of teaching materials.

The majority of the NCE students stated that they would not leave teaching for a job which offered a higher

salary; but if more rapid advancement were offered, they would leave teaching. The great majority were eager to leave teaching temporarily for further schooling, since they saw this schooling as the avenue to professional advancement.

The job preferences of these students within the educational field added support to the judgment that their attitude toward teaching was positive. Three-fourths of the students indicated that they would prefer classroom teaching, if working as a classroom teacher did not represent a financial hardship.

The influence of the Ohio University-USAID Project was strongly indicated in the choice of schools for further education made by the ATCK students, with twenty-seven naming Ohio University as their first choice. Both groups of NCE students stated preference for university training abroad rather than in Nigeria.

Placement of NCE students in their major fields of specialization was satisfactory, with more than one-half spending 90 to 100 per cent of their teaching time in their major fields.

A clear preference was stated for two kinds of in-service assistance--refresher courses in major subject areas and the opportunity to make, or have provided, visual aids. The latter need has been increasingly met through the Materials Development Center at ATCK.

The ATCK students expressed a desire for a wider offering in science, but generally felt that the program was balanced and that their academic preparation was adequate. (The introduction of a science major at the NCE level in October 1969 provided the kind of science offering these students desired.) The pass rate on the NCE examination of 85.6 per cent supported the students' judgment of their academic preparation at ATCK.

Since seventy-six, or 90 per cent, of the eighty-four people who originally enrolled in the NCE class completed the program, the holding power of the NCE program at ATCK was judged to be satisfactory.

The NCE students reflected a positive attitude toward the value of their practice teaching experience, although they were quite critical of the amount of supervision provided by the college instructors. The greatest number of the recommendations for the improvement of the practice teaching experience were concerned with more frequent supervision by the college instructors. A chi-square comparison of the group ratings of students' teaching efficiency made by students and by their principals revealed no significant difference.

It was to the credit of the administrative officers involved that a number of the criticisms voiced, i.e., problems of housing and feeding, provision of visual aids and instruction in the construction and use of visual aids, and items related to practice teaching procedures had been

satisfactorily resolved by the end of the period during which this study was conducted.

III. ANALYSES OF DATA RELATED TO HYPOTHESES

The four hypotheses stated in Chapter I were tested at the .05 level of significance by means of contingency chi-squares. The calculations were performed by means of a computer program written by Mr. David Richmiller, Institute of Administration, Ahmadu Bello University, Zaria. The analyses of the data related to these hypotheses was supervised by Dr. A. R. Kokan, Department of Mathematics, Ahmadu Bello University, Zaria.

It was assumed that because of their having had different treatments, responses from NCE educated teachers would differ significantly from the responses of Grade II educated teachers. Therefore, it was hypothesized that there would be a significant difference between the responses of the NCE educated teachers and the responses of the Grade II educated teachers included in the study.

Hypothesis I. There is no significant difference between the responses of the Grade II (Post-Primary) educated teachers and the responses of the NCE teachers in each of the following areas:

A. General satisfaction with the teaching

profession

df = 3 X^2 = 26.2
Tabled chi-square = 7.815

*Significant (Tables VII, XVIII, pp. 95, 124)

B. General dissatisfaction with the teaching profession

df = 4 X^2 = 14.5
Tabled chi-square = 9.488

*Significant (Tables VIII, XIX, pp. 97, 126)

C. Factors associated with their leaving teaching

df = 2 X^2 = 6.1
Tabled chi-square = 5.991

Significant (Tables IX, XX, pp. 99, 127)

D. The factor which caused greatest personal difficulty during their college education program

df = 4 X^2 = 39.5
Tabled chi-square = 9.488

*Significant (Tables XIII, XXVII, pp. 103, 137)

E. The rating they assign to themselves for the quality of their teaching performance

df = 2 X^2 = 11.9
Tabled chi-square = 5.991

*Significant

F. The kinds of in-service help they desire

df = 2 X^2 = 0.8
Tabled chi-square = 5.991

Not significant (Tables XI, XXIV, pp. 101, 132)

This hypothesis was retained with respect to Item F and was rejected with respect to Items A, B, C, D, and E.

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*Significant at .01 level.

The NCE group reflected greater satisfaction with teaching, less dissatisfaction, and a different pattern of reasons which would cause them to leave teaching. In general, the Grade II teachers stated that they were more willing to leave the teaching profession for strictly monetary gain than were the NCE teachers. The items which caused NCE teachers difficulty during the college education program were held to be a reflection of the greater responsibilities, in terms of finance and housing, of this more mature group. The Grade II teachers indicated that their greatest difficulties related to the academic aspects of their education. The fact that the NCE teachers did not generally find the academic program a cause of difficulty was held to be a result of their more adequate preparation for their program. The rating of teaching performance which the NCE's assigned to themselves was decidedly more realistic--as demonstrated in previous sections of this chapter--than that assigned to themselves by the Grade II teachers, when judged on the basis of the examination results of the two groups.

The only item in which there was not a significant difference, Item F related to in-service help desired, indicated that the same kinds of in-service programs were wanted by both groups of teachers.

Since ATCK was different from the other college in its operation of a Grade II and an NCE program on the same campus, utilizing the same general staff and

facilities, and was further unique in operating, at the time of this study totally as a day school for all students, it was hypothesized that these conditions might be related to significant differences between the responses of the ATCK Grade II students and those students from the other Grade II college, which was operated solely as a Grade II teacher education institution in which all students were boarders.

Hypothesis II. There is no significant difference between the responses of the Grade II teachers educated at ATCK and the responses of the Grade II teachers educated at the other Grade II Teachers' College in each of the following areas:

A. General satisfaction with the teaching profession

df = 3 $X^2 = 3.0$
Tabled chi-square = 7.815

Not significant (Table VII, p. 95)

B. General dissatisfaction with the teaching profession

df = 3 $X^2 = 11.2$
Tabled chi-square = 7.815

Significant (Table VIII, p. 97)

C. Factors associated with their leaving teaching

df = 1 $X^2 = 4.1$
Tabled chi-square = 3.841

Significant (Table IX, p. 99)

D. The factor which caused greatest personal difficulty during their college education program

df = 4 $X^2 = 17.6$
Tabled chi-square = 9.488

*Significant (Table XIII, p. 103)

E. The rating they assign to themselves as to the quality of their teaching performance

df = 2 $X^2 = 0.3$
Tabled chi-square = 5.991

Not significant

F. The kinds of in-service help they desire

df = 2 $X^2 = 6.6$
Tabled chi-square = 5.991

Significant (Table XI, p. 101)

This hypothesis was retained with respect to Items A and E and was rejected with respect to Items B, C, D, and F.

The degree to which the finding of a significant difference between the responses of the two groups to Item B and C was directly related to the longer period of time during which some of the Grade II students from ATCK had taught is not known. The evidence of greater dissatisfaction with teaching and greater willingness to leave the profession on the part of the Grade II students from the other college might be attributable to the fact that almost all of that group were still teaching--those who were quite dissatisfied had not yet left the profession for other employment. In the case of the ATCK Grade II students, a large number had already left teaching; it might be the case that those who had left teaching represented the element most dissatisfied with teaching.

However, this relationship was not determined as a part of this study.

The significant difference demonstrated between the two groups with respect to Item D, related to the factor which caused greatest personal difficulty during their college education program, was believed to be associated with the difficulties with transport reported by the ATCK respondents. This difference was considered to be a reflection of the differences in problems encountered in attending a day school rather than a boarding school.

With reference to Item F, the greater demand for audio-visual and teaching aids on the part of the students from the other Grade II college might be a reflection of the fact that these students were generally somewhat more isolated from service centers which provided these services than were the students from ATCK.

Hypothesis III. There is no significant difference between the responses of the NCE teachers educated at ATCK and the responses of the NCE teachers educated at another Advanced Teachers' College in each of the following areas:

A. General satisfaction with the teaching profession

df = 2 $X^2 = 3.0$
Tabled chi-square = 5.991

Not significant (Table XVIII, p. 124)

B. General dissatisfaction with the teaching profession

df = 4 $X^2 = 3.2$
Tabled chi-square = 9.488

Not significant (Table XIX, p. 126)

C. Factors associated with their leaving teaching

df = 2 $X^2 = 5.0$
Tabled chi-square = 5.991

Not significant (Table XX, p. 127)

D. The factor which caused greatest personal difficulty during their college education program.

df = 4 $X^2 = 9.2$
Tabled chi-square = 9.488

Not significant (Table XXVII, p. 137)

E. The rating they assign to themselves as to the quality of their teaching performance

df = 1 $X^2 = 0.1$
Tabled chi-square = 3.841

Not significant

F. The kinds of in-service help they desire

df = 2 $X^2 = 0.6$
Tabled chi-square = 5.991

Not significant (Table, XXIV, p. 132)

G. The evaluation of their practice teaching experience

df = 2 $X^2 = 0.1$
Tabled chi-square = 5.991

Not significant (Table XXXII, p. 143)

This hypothesis was retained. There was no significant difference between the responses of the two groups in any of the areas. These analyses indicated that the responses of the ATCK NCE students could be considered as typical responses from an NCE group in Northern Nigeria.

Hypothesis IV. There is no significant difference between the ratings assigned by the ATCK NCE students for their present teaching performance and the ratings assigned for their present teaching performance by the principals of the institutions in which they are employed.

df = 2 $X^2 = 1.1$
Tabled chi-square = 5.991

Not significant (Table XXXV, p. 148)

This hypothesis was retained. On the basis of the agreement in judgment of the students and their principals, and of the performance ratings indicated, it was judged that the NCE program at ATCK had thus far produced teachers who were satisfactory to their employers, and who were satisfied with their own performance.

Summary

The analysis of data related to Hypothesis I indicated that there were significant differences in five areas between the responses of the Grade II and those of the NCE educated teachers treated in the study. The only area in which a significant difference was not found between these two groups was in the area of desired in-service activities.

The analysis of data related to Hypothesis II indicated that there were significant differences between the two groups of Post-Primary students with respect to four areas (1) the degree of general dissatisfaction with

the teaching profession, (2) factors associated with their leaving the profession, (3) the factor which caused greatest personal difficulty during their college education program, and (4) the kinds of in-service helps they desired. There were no significant differences between the two Post-Primary groups with respect to (1) their general satisfaction with the teaching profession, and (2) the rating they assigned to themselves as to the quality of their teaching performance.

Analysis of data related to Hypothesis III, which treated the responses of the two groups of NCE students, revealed no significant differences in any respect.

Analysis of data related to Hypothesis IV, which treated the responses of the ATCK NCE students and the responses of their principals, revealed no significant difference between their ratings of these students' teaching performance.

Chapter Summary

This chapter, divided into three sections, has presented the findings which resulted from the follow-up study of ATCK students. Section I of the chapter has described the ATCK Post-Primary curriculum and the two groups of Post-Primary students who were treated in the study, has reported and discussed the questionnaire responses of these groups, and has summarized the findings related to them. Section II has described the NCE curriculum

at ATCK and the two groups of NCE students who were treated in the study, has reported the questionnaire responses of these two groups, and has summarized the related findings. Section III has treated the analyses of the hypotheses which were formulated for testing in the study and has summarized the results of these analyses.

A summary of the total study, of the conclusions based on the findings of the study, and recommendations concerning the present ATCK education programs, as well as recommendations for further study, are included in the following chapter.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The Problem and Purposes of the Study

This study was undertaken to obtain and analyze both quantitative and qualitative data based on responses of those students enrolled in the Post-Primary and the Nigeria Certificate in Education (NCE) programs at Advanced Teachers' College, Kano (ATCK) who were scheduled to complete the course in which they were enrolled prior to July 1968.

The quantitative aspects of the study were concerned with the students' employment, the location and type of institution in which they were employed, and their further educational activities since leaving college.

The qualitative aspects of the study were concerned with the job satisfaction of the students and--for that majority who were engaged in teaching--with their attitudes toward various aspects of their college teacher education program, present activities, and future professional aspirations. Another qualitative aspect of the study obtained two estimates of each NCE student's present teaching efficiency; one estimate was made by the NCE

student of his own performance while the other estimate was made by the principal of the school in which the NCE student was employed.

ATCK was different from the other college in operating both a Post-Primary (Grade II) and an NCE program on the same campus and also in operating these programs on a day-school basis. It was desired to determine whether these differences in operation would be related to differences in the responses obtained from ATCK students and from students enrolled in other institutions which offer single programs and operate as boarding institutions. To make this determination, a group of students from a neighboring Grade II Teachers' College and a group of students from another Advanced Teachers' College were surveyed in the study.

Review of the Literature

There being no body of literature treating follow-up studies of teachers in Nigeria of the particular kind treated in this study, the first section of the review of the literature treated the historical development of education in West Africa and in Nigeria. Problems related to educational development--provision of mass primary education, teacher supply, status and training, academic versus vocational education, the problem of the unemployed school leaver, and the critical need for more educated middle-level manpower--were discussed. The

purposes and roles of expatriate aid were treated. The second section of the chapter presented an account of the purposes of and the development of ATCK. The participation of Ohio University-USAID in the development of ATCK--a participation designed to implement a number of the recommendations of the Ashby Commission Report--was described. The information presented in the two sections of the review of the literature was judged to be the relevant background to this follow-up study of ATCK students.

Procedures of the Study

The collection of data was primarily by means of a mail questionnaire. This questionnaire was first used in a trial survey with then current ATCK students. When no response was received to either the mail questionnaire or its follow-up, the questionnaire was, when possible, completed by personal interview.

Responses of the Subjects

Seventy-eight responses were received from the Post-Primary students and seventy-nine responses were received from the NCE students of ATCK; the total number of ATCK students from whom data were collected, then, was 157. Of this group, 117 were employed in education and 14 were full-time students engaged in further teacher education. Thus 131, or 83 per cent, of 157 ATCK students who responded to the survey were either employed in

education or were enrolled in further teacher education programs.

Responses were received from forty-five of the fifty Post-Primary students surveyed from another Grade II college and from forty-two of the fifty students surveyed from another Advanced Teachers' College. Of this group, eighty-five, or 98 per cent, were employed in education.

The difference in the percentage of respondents involved in education from ATCK and from the comparison colleges was accounted for by the fact that a number of the ATCK Post-Primary group had been in the field for a longer period of time and therefore the attrition rate of the ATCK Post-Primary group could be expected to be somewhat higher than the attrition rate of the other group.

Findings Related to Hypotheses

Hypothesis I, with respect to potential differences between Post-Primary and NCE students, revealed that significant differences existed between the responses of these two groups in five of the six areas tested. These differences between the groups were with respect to their satisfaction and dissatisfaction with teaching, the educational post they preferred, the holding power of the teaching profession, and difficulties encountered during the college education program.

The NCE students cited working with children as their primary source of satisfaction in teaching. They

further indicated that they would prefer classroom teaching to any other job in the education field, if monetary considerations could be discounted. The Post-Primary group indicated that they viewed teaching, to a greater degree than did the NCE group, as a means of improving their own financial and social condition. They indicated preference for jobs in education other than classroom teaching.

With respect to difficulties encountered during the college education course, Post-Primary students indicated difficulty with academic affairs and, in the case of the Kano students, with transportation. NCE students indicated difficulty primarily with the financial strain imposed by continued schooling and with related problems of arranging satisfactory living conditions and transportation. The Post-Primary and the NCE students did not differ from one another with respect to in-service help desired.

Hypothesis II, with respect to potential differences between the responses of the Post-Primary students educated at ATCK and the responses of the Post-Primary students educated at the other Grade II college, revealed significant differences in four of the six areas tested. These differences, with reference to dissatisfaction with the teaching profession and with factors which would cause them to leave teaching, were interpreted as resulting from the shorter period of time during which the comparison group of Post-Primary students had been employed in teaching. In the matter of in-service help desired, the

difference between the two groups was held to be attributable in some degree to the fact that the comparison group was somewhat more isolated from service centers which provided these services than were the students from Kano. The responses to this item, when considered in terms of availability of services, may not have reflected a significantly different attitude.

The significant difference shown between the two Post-Primary groups with respect to causes of greatest personal difficulty during the college education program was attributed to the difficulties with transportation of the ATCK Post-Primary students which was associated with their attending a day school rather than a boarding school. The two groups of Post-Primary students did not differ from one another with respect to their general satisfaction with the teaching profession and with respect to the rating they assigned themselves as to the quality of their teaching performance.

Hypothesis III, with respect to potential differences between the responses of the Kano NCE students and the responses of the NCE students from the other Advanced Teachers' College, revealed no significant differences.

Hypothesis IV, with respect to potential differences between the self-ratings assigned by the Kano NCE students and the ratings assigned by their principals for the students' present teaching efficiency, revealed no

significant differences.

Other Findings

The holding power of the profession, after their having had one year's experience as NCE teachers, was 100 per cent for the ATCK students and 98 per cent for the students from the other Advanced Teachers' College.

NCE students from both Advanced Teachers' Colleges were drawn from all six states in Northern Nigeria and were employed, in approximately equal numbers, in these states. Approximately two-thirds of the NCE students had completed Grade II teacher education programs prior to enrollment in the NCE program, while approximately one-third of the NCE students had completed secondary school. The average number of years of teaching experience was slightly more than four.

The degree of satisfaction with teaching on the part of these NCE students was high, although they were concerned about their opportunities for professional advancement. These students showed preference for university training abroad in preference to training within the country. The Kano NCE students reflected the strong institutional relationship between ATCK and Ohio University in this respect, with twenty-seven opting for Ohio University as a first choice for university training.

The NCE students were found to be teaching in their major fields of academic training; more than one-half of

the students had 90 to 100 per cent of their teaching assignment in their major fields.

The holding power of the NCE program at both colleges was high, with 90 per cent of the Kano NCE students and 76 per cent of the NCE students from the other Advanced Teachers' College completing the three-year course.

The NCE students from both institutions indicated that the academic program offered was satisfactory and that practice teaching experiences had been worthwhile. The most frequent recommendations for improvement of practice teaching concerned the need for more frequent supervision by college instructors. It was noted that the majority of the other student recommendations for change or program improvement were being met or had been met.

Of the seventy-eight Post-Primary respondents, fifty-three, or 68 per cent, were either engaged in teaching or in furthering their education. These students were drawn almost exclusively from Kano State and all those employed in teaching were employed in Kano State.

The Post-Primary program had not yet achieved results which could be judged to be satisfactory with respect to the students' ability to pass the Grade II Teachers' Examination. The Grade II examination pass-rate of only 3 per cent and 31 per cent, respectively, for the two ATCK Post-Primary classes treated in the study, indicated that the majority of these students had not

achieved the certification level for which their college course was designed to equip them.

The holding power of the Grade II college teacher education program was satisfactory, since 96 per cent of the ATCK Post-Primary students remained enrolled throughout the program.

The Post-Primary program was seen to be increasing in educational effectiveness. (The 1968 Grade II Examination pass-rate was 42 per cent.) It is probable that the responses of future Post-Primary classes from ATCK to the items which have been reported in this study would be quite different from the responses made by this group of original enrollees who represented an atypical group.

The responses of the Post-Primary and NCE groups were similar with respect to certain areas. In all cases the reasons given for leaving teaching were primarily financial. The dissatisfactions expressed with teaching centered around conditions of service, including salary and lack of advancement, lack of teaching equipment and supplies, and, in the case of the more highly trained NCE teachers, lack of status and prestige. The in-service help desired by both NCE and Post-Primary groups was of the same kind.

II. CONCLUSIONS

The findings of this study supported the following conclusions:

1. Recommendations concerning the NCE program were equally valid for both Advanced Teachers' Colleges in Northern Nigeria.

2. The Post-Primary and the NCE program produced different results in terms of educational attitudes and behaviors.

3. The NCE program had thus far been successful in fulfilling its purpose of supplying secondary schools and Grade II teachers' colleges with staff judged as satisfactory by their employers.

4. As has been historically true for a variety of reasons in West Africa, achieving a degree in education outside the country continued to be preferred to achieving a degree in education at a degree-granting Nigerian university.

5. NCE teachers were teaching in their areas of specialization and they were teaching in the schools for which their college programs had intended them.

6. The holding power of the ATCK education programs was satisfactory.

7. The Post-Primary program did not give evidence of possessing the professional holding power exhibited by the NCE program.

8. The Post-Primary program at ATCK had not as yet achieved satisfactory results. However, on the basis of the improvement which was indicated in Post-Primary

examination scores each year since the inception of the program, it was concluded that the academic quality of the Post-Primary program at ATCK had improved.

9. The states sponsoring the Post-Primary and the NCE students' courses at the colleges were benefitting from their teaching services.

III. RECOMMENDATIONS

General Recommendations

1. It is recommended that action be initiated by the Institute of Education, Ahmadu Bello University, with the cooperation of the State Ministries of Education and the Federal government, to standardize vacation periods at all levels of education in order to utilize vacation periods, physical facilities, and teaching staff in programs leading to higher levels of certification and/or university degrees.

2. It is recommended that a systematic program be established by Grade II and Advanced Teachers' Colleges, with the cooperation and coordination of the Institute of Education, to promote and publicize programs of continuing education which may be undertaken by teachers while continuing to fulfill the obligations of full-time classroom teaching. The findings of this study indicate that there is a need to develop acceptance on the part of aspiring students for part-time programs as an alternative to full-time school attendance.

3. It is recommended that consideration be given to the establishment of guidance and counseling services in all teachers' colleges in Northern Nigeria. This service could promote the selection and retention in professional education programs of those persons who have interest in teaching as a vocation. Experienced counselors could be of great assistance in promoting a positive attitude toward teaching on the part of students already enrolled in teacher education programs. Counselors could also be of great assistance in publicizing new and existing programs of continuing education.

4. It is recommended that further programs, seeking both external and internal assistance, be established to upgrade the staff of all Advanced Teachers' Colleges. This action would be effective in reducing the disparity in attitude toward teacher education as compared with university education, and this action would at the same time promote the improvement of instruction at all levels from primary school through the university.

Recommendations for Further Study

1. It is recommended that an in-depth study be made of the cultural factors which underlie dominant values and attitudes of the residents of the six states of Northern Nigeria with the purpose of proposing some ways of promoting the value to society, to the family, and to the individual, of the educational profession. Such a study

should be of assistance in promoting the recruitment of, and the retention of, capable, motivated, professionally-oriented persons in the educational profession.

2. It is recommended that a comprehensive study be made to determine to what degree the USAID assisted education projects in Nigeria have stimulated the capability of sustaining an indigenous educational structure.

3. It is recommended that a study be conducted for the purpose of developing alternative models for programs of continuing education beyond the Grade II and NCE levels.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

Barr, A. S. Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness. Madison, Wisconsin: Dembar Publications, Inc., 1961.

Bereday, George Z. F. (ed.). Essays on World Education: The Crisis of Supply and Demand. New York: Oxford University Press, 1969.

Burns, Donald G. African Education. London: Oxford University Press, 1965.

Campbell, J. McLeod. African History in the Making. London: Edinburgh House Press, 1956.

Clarke, Robert B., Arthur P. Coladarci and John Caffrey. Statistical Reasoning and Procedures. Columbus: Charles E. Merrill Books, Inc., 1965.

Clignet, Remi and Philip Foster. The Fortunate Few: A Study of Secondary Schools and Students in the Ivory Coast. Evanston: Northwestern University Press, 1966.

Cowan, L. Gray, James O'Connell and David G. Scanlon (eds.). Education and Nation-Building in Africa. New York: Frederick A. Praeger, Publishers, 1965.

Elliott, William Y. (ed.). Education and Training in the Developing Countries. New York: Frederick A. Praeger, Publishers, 1966.

Foster, Philip J. Education and Social Change in Ghana. London: Routledge and Kegan Paul, Ltd., 1965.

Gibbs, James L., Jr. (ed.). Peoples of Africa. New York: Holt, Rinehart and Winston, Inc., 1965

Good, Carter V. Introduction to Educational Research. New York: Appleton-Century-Crofts, Inc., 1959.

Hanson, John W. and Cole S. Brembeck. Education and the Development of Nations. New York: Holt, Rinehart and Winston, Inc., 1966.

Holmes, Brian (ed.). Educational Policy and the Mission Schools: Case Studies from the British Empire. London: Routledge and Kegan Paul, 1967.

Ikejiani, Okechukwu (ed.). Nigerian Education. Ikeja: Longmans of Nigeria, 1964.

Jolly, Richard. Planning Education for African Development. Nairobi: East African Publishing House, 1969.

Lewis, L. J. Society, Schools and Progress in Nigeria. London: Pergamon Press, 1965.

Miller, Delbert C. Handbook of Research Design and Social Measurement. New York: David McKay Company, Inc., 1964.

Oppenheim, Abraham N. Questionnaire Design and Attitude Measurement. New York: Basic Books, Inc., 1966.

Parten, Mildred. Surveys, Polls and Samples: Practical Procedures. New York: Harper & Brothers, 1950.

Sax, Gilbert. Empirical Foundations of Educational Research. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1968.

Scanlon, David G. (ed.). Traditions of African Education. New York: Bureau of Publications, Teachers College, Columbia University, 1964.

Scanlon, David G. and James J. Shields (eds.). Problems and Prospects in International Education. New York: Teachers College Press, Teachers College, Columbia University, 1968.

Solaru, T. T. Teacher Training in Nigeria. (Edited and with final chapter by Ian Espie, M. A.). Ibadan: Ibadan University Press, 1964.

Sukhia, S. P., P. V. Mehretra and R. N. Mehretra. Elements of Educational Research. Second Edition. Bombay: Allied Publishers Private Limited, 1966.

Trevallion, B. A. W. Metropolitan Kano Report on the Twenty Year Development Plan 1963-1983. London: Pergamon Press, 1963.

Van Dalen, Deobold B. and William J. Meyer. Understanding Educational Research. New York: McGraw Hill, 1966.

Weiler, Hans N. (ed.). Education and Politics in Nigeria. Freiburg, Germany: Rombach, 1964.

B. PERIODICALS

Ajayi, J. F. Ade. "The Place of African History and Culture in the Process of Nation-Building in Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 206-213.

Bigelow, Karl W. "Africa, Teacher Education and the United States: The Fourth Charles W. Hunt Lecture," American Association of Colleges for Teacher Education Yearbook, 1963, 102-112.

Bigelow, Karl W. "Some Major Educational Problems in Africa South of the Sahara: A Critical Summary," Journal of Negro Education, XXX (Summer, 1961), 343-357.

Biobaku, S. O. "Africa's Needs and Africa's Universities," West African Journal of Education, VII (June, 1963), 61-63.

Bond, Horace Mann. "Some Major Educational Problems in Africa South of the Sahara: A Critical Summary," Journal of Negro Education, XXX (Summer, 1961), 358-364.

Brickman, W. W. "Tendencies in African Education," Educational Forum, XXVII (May, 1963), 399-416.

Brown, G. N. "Staffing the New Universities of Africa and Britain," Oversea Education, XXXIV (April, 1962), 9-12.

Cowan, L. Gray. "The Current Political Status and Significance of Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 180-192.

Dillon, Wilton S. "Universities and Nation-Building in Africa," Journal of Modern African Studies, I (March, 1963), 75-89.

Emerson, Rupert. "Crucial Problems Involved in Nation-Building in Africa," Journal of Negro Education, XXX (Summer, 1961), 193-205.

Franck, Thomas M. "European Communities in Africa," Journal of Negro Education, XXX (Summer, 1961), 223-231.

Frazier, E. Franklin. "Urbanization and its Effects upon the Task of Nation-Building in Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 214-222.

Hanna, Paul R. "Education as an Economic and Social Instrument in the Newly Developing Nations," Phi Delta Kappan, XCIII (May, 1962), 354-356.

Herrington, John O. A. and William H. Cooper, "Ohio University Trains Nigerian Teachers," Oversea Education, XXXIII (October, 1961), 107-115.

Lewis, L. J. "Education and Political Independence in Africa," Comparative Education Review, V (June, 1961), 39-49.

Mathews, Z. K. "African Awakening and the Universities," Overseas Quarterly, III (September, 1962), 77-79.

Miller, Richard I. "The Role of the United Nations in an Emerging Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 302-315.

Morgan, Gordon D. "De-Professionalization of Teaching in East Africa," Journal of Negro Education, XXXIV (Fall, 1965), 404-412.

Nwana, O. C. "Standards in Nigerian Education," West African Journal of Education, X (February, 1966), 14-17.

Sanders, Donald P. "Toward a Theory of Educational Development," Comparative Education Review, XIII (October, 1969), 276-293.

Smyke, Raymond J. "Problems of Teacher Supply and Demand in Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 334-342.

Stabler, Ernest. "Pressures and Constraints in Planning African Education," Comparative Education Review, XII (October, 1968), 350-356.

Williams, Chancellor. "Educational Obstacles to Africanization in Ghana, Nigeria and Sierra Leone," Journal of Negro Education, XXX (Summer, 1961), 261-265.

Wilson, Frank T. "The Future of Missionary Enterprise in Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 324-332.

Young, Roland. "The Stake of the United States in an Independent Africa South of the Sahara," Journal of Negro Education, XXX (Summer, 1961), 316-323.

C. PUBLICATIONS OF THE GOVERNMENT AND OF LEARNED SOCIETIES

Committee on Education and Human Resource Development, Nigeria Project Task Force. Nigerian Human Resource Development and Utilization. New York: Education and World Affairs, 1967.

Commission on Post-School Certificate and Higher Education in Nigeria. Investment in Education. Lagos: Federal Government Printer, 1960. [The Ashby Report]

Jones, S. H. M. Field Report on the Survey of the Status of the Teaching Profession in Africa. Washington, D. C.: World Confederation of Organizations of the Teaching Profession, 1962.

Masland, John W. Educational Development in Africa: The Role of United States Assistance. New York: Education and World Affairs, 1967.

Normington, Louis W. Teacher Education and the Agency for International Development. Washington, D. C.: The American Association of Colleges for Teacher Education, 1970.

Norris, M. W. (ed.). Northern States of Nigeria Local Government Yearbook, 1968. Zaria: Department of Local Government, Institute of Administration, Ahmadu Bello University, 1968.

Shane, Harold J. (ed.) The United States and International Education. The Sixty-eighth Yearbook of the National Society for the Study of Education. Chicago: University of Chicago Press, 1969.

D. UNPUBLISHED MATERIALS

Butcher, Genevieve and Edwin L. Carey. "A Follow-Up Study of Persons Who Completed the Ohio University USAID Business Education Program 1960-1966," Ibadan: Ohio University-USAID, 1966. (Mimeographed.)

Cooper, William H. and Russell A. Milliken. "Northern Region Teacher Education Project: A Survey Report," Ohio University-USAID, 1961. (Mimeographed.)

Eberman, Paul W. and Howard E. Wakefield. "An Evaluation of Teacher Education in Northern Nigeria," Madison, Wisconsin: University of Wisconsin-USAID, 1963. (Mimeographed.)

Jones, Cathryn M. "Follow-Up Study of 1965 Graduates, Federal Advanced Teachers' College, Yaba, Lagos, Nigeria," Lagos: University of California at Los Angeles-USAID, 1966.

Lambe, Cameron W. "A Follow-Up Study of Graduates of the Technical College, Ibadan, Nigeria," Ibadan: Western Michigan University-USAID, 1967. (Mimeographed.)

Stanger, Donald E. "Follow-Up Study of Two Classes of Post-Primary Students Leaving Kano Teacher Training College After a Three Year Program in Teacher Training," Kano: Ohio University-USAID, 1966. (Mimeographed.)

Treathaway, Edward, Verna A. Carley, LeRoy A. Sands, C. Cramer, John Waters and Vincent Brown. "The Expansion of Teacher Education in Northern Nigeria 1961-1970," Madison, Wisconsin: University of Wisconsin-USAID, 1963. (Mimeographed.)

APPENDICES

APPENDIX A

KATC/11
ADVANCED TEACHERS' COLLEGE, KANO
P. M. B. 3045
KANO, NIGERIA

Dear Former Student:

We are conducting a study of all former students of Advanced Teachers' College, Kano, of students of Bichi Teachers' College who passed out in December, 1967, and of students of Advanced Teachers' College, Zaria who passed out in June, 1968.

The purposes of the study are to determine your teaching locations and employers, to determine what things about your college education program you found most useful and what things you found least useful, to learn your plans or interests in further schooling, and to determine what kinds of help Advanced Teachers' College, Kano might provide for you in your first years of teaching.

We believe that this is the first follow-up study of teachers which has been made in Northern Nigeria and the success of this study depends upon your co-operation. We hope that your answers to the questions on the enclosed form will help us to improve our subject offerings and our services to you.

Your answers will be held in strict confidence. No individuals, or their particular schools, will be identified in the report of the study. The findings of the study, which will be made available to the Ministries of Education and to other interested educational agencies, will treat only percentages or average numbers responding in a given manner.

Please complete the form and return it in the stamped, addressed envelope enclosed.

If you have any questions about the forms, or if you wish to make any comments for which space is not provided on the form, please write on the last sheet of the form.

Sincerely yours,

Reba Pinney
For Principal
Advanced Teachers' College,
Kano

D. Teaching Experience--Please print

Total number of terms teaching experience you have had (Include the present term.) _____

E. Present Employment--Please print

Name of employer_____Address_____

Post held_____

If teaching, name of school at which you work_____

_____

****

If you are no longer employed as a teacher, please complete only the questions on page 3.

If you are now employed as a teacher, omit page 3 turn to page 4 and complete all the other questions.

****

****

Complete this page only if you are no longer employed as a teacher.

****

1. Date you left teaching _____
(Month) (Year)

2. Mark an X after each item below in the proper column to describe how much influence that item had in your decision to leave teaching.

	None	Little	Some	Much	Great
Better working hours					
Better salary					
Better working conditions					
Opportunity for promotion					
New post nearer home					
Preferred this post to teaching					
Dismissed from teaching post					
New post offered training opportunities					

3. How does your present post compare with teaching in the satisfaction it gives you? Mark X after the choice which best describes the satisfaction your present post offers you.

No satisfaction___, Less satisfaction than teaching___, About the same satisfaction as teaching___, More satisfaction than teaching___, Much more satisfaction than teaching ___.

4. List below the different posts you have held since you left teaching.

Post Held	Employer	Dates of Employment
_____	_____	From____To_____
_____	_____	From____To_____
_____	_____	From____To_____

****

If you are no longer employed as a teacher, stop here. Do not complete the remainder of this questionnaire.

****

1. List below the three things which give you greatest satisfaction in teaching. Place an X in the proper column after each item to indicate the amount of satisfaction you receive from that item.

	Satisfaction				
	None	Little	Some	Much	Great
Degree of satisfaction with the teaching profession					

2. List below the three things which cause you greatest dissatisfaction in teaching. Place an X in the proper column after each item to indicate the amount of dissatisfaction that item causes you.

	Dissatisfaction				
	None	Little	Some	Much	Great
Degree of dissatisfaction with the teaching profession					

3. Place an X in the appropriate column after each item below to indicate which of the following job offers would cause you to leave teaching.

	Undecided	Yes	No
A larger salary			
Opportunity for more rapid advancement			
Opportunity for further schooling			
Other (Please write in any other factors which would cause you to leave teaching below)			

4. If you wish to attempt further schooling, print the first and second choices of schools you would like to attend below.

   1. _____

   2. _____

5. If salary were not a consideration, what post in education would you most like to fill?

   _____

6. If you are an NCE graduate, circle the percentage which best describes the amount of time you are now teaching in your major subjects.

   Not at all 25% 50% 75% 90% 100%

7. If you have attempted further educational work since completing your college education program, please list below the kinds of educational activities you have attempted. Place an X in the proper column after each activity listed to indicate the value of that activity to you in your teaching.

Educational Activity	Value: None	Little	Some	Much	Great

8. Please list below the kinds of in-service help you feel would be of greatest benefit to you in your first terms of teaching.

   _____

   _____

9. Please list below the subject or subjects to which you feel too much time and attention were given during your college education program.

   _____

10. Please list below the subject or subjects to which you feel not enough time and attention were given during your college education program.

_____

11. What subjects which you did not have opportunity to study during your college education would you have liked to study? List the subject which you would have most liked to take as number 1.

1. _____ _____

12. Please list the things which caused you great personal difficulty during your college education program. List the thing which caused you greatest difficulty as number 1.

1. _____ _____

_____ _____

13. What changes or improvements do you feel need to be made in the teacher education program in which you were enrolled?

_____

14. Please list the subject area or areas in which you feel your teacher education program best prepared you for teaching.

_____

15. Please list the subject area or areas in which you feel your teacher education program least prepared you for teaching.

_____

16. Place an X in the proper column after each question below to indicate the value of the experience you had during your final teaching practice in your college education program.

	None	Little	Some	Much	Great
How well prepared were you academically for the subjects you taught?					

16. (Continued)

	None	Little	Some	Much	Great
How helpful was the teacher in whose classroom you did your practice teaching?					
How helpful to you was the observation of your college tutor?					
To what degree did you have the necessary texts, reference books, and aids for the subjects taught?					
Of how much value was your total teaching practice experience to you?					

17. Please list below the major difficulties you encountered during your teaching practice. List the one thing which caused you greatest difficulty as number 1.

1. _____ _____

_____ _____

18. What skills or methods which were not taught during your college training did you need to know during your teaching practice?

_____

_____

19. What changes would you recommend in the organization and administration of teaching practice at the college you attended?

_____

_____

_____

_____

20. Evaluate your own teaching by placing an X in the column after each item which you believe best describes your present performance

	Weak	Below Average	Average	Good	Excellent
My knowledge of subject matter is					
My lectures are					
My use of the English language is					
My knowledge of education and teaching procedures is					
My relationship with staff members is					
My relationship with students is					
My promptness and school attendance are					
My personal appearance is					
Among the tutors I have observed, I rank as					

APPENDIX B

PRINCIPAL'S EVALUATION FORM

Name of our former student, now your tutor _____

DIRECTIONS: After each statement please mark an X in the column which best describes the performance of the tutor named above.

	Weak	Below Average	Good	Excellent
1. This tutor's knowledge of subject matter is				
2. This tutor's lectures are				
3. This tutor's use of the English language is				
4. This tutor's knowledge of education and teaching procedures is				
5. This tutor's relationship with staff members is				
6. This tutor's relationship with students is				
7. This tutor's promptness and school attendance are				
8. This tutor's personal appearance is				
9. Among tutors I have observed, this tutor ranks as				

In the space below, please make any comments or suggestions which would help us to improve our NCE program. If additional space is needed, please use the back of this sheet.

_____

_____

APPENDIX C

A comparison by means of chi-square analysis of a random sample of responses from ten ATCK students who completed the three-year Post-Primary program and from ten students who completed the five-year Post-Primary program.

A. General satisfaction with the teaching profession

df = 4 $X^2 = 0.0$
Tabled chi-square = 9.49

Not significant

B. General dissatisfaction with the teaching profession

df = 4 $X^2 = 0.24$
Tabled chi-square = 9.49

Not significant

C. Factors associated with their leaving teaching

df = 2 $X^2 = 0.0$
Tabled chi-square = 5.99

Not significant

D. The factor which caused greatest personal difficulty during their college education program

df = 2 $X^2 = 0.25$
Tabled chi-square = 5.99

Not significant

E. The rating they assign to themselves as to the quality of their teaching performance

df = 1 $X^2 = 0.26$
Tabled chi-square = 3.84

Not significant

F. The kinds of in-service help they desire

df = 2 $X^2 = 0.31$
Tabled chi-square = 5.99

Not significant

APPENDIX D

KANO NCE STUDENT'S SELF-RATINGS
AND THEIR PRINCIPAL'S RATINGS
OF THEIR TEACHING EFFICIENCY

Student Number	Student's Rating	Principal's Rating
1	Good	Good
2	Average	Average
3	Good	Good
4	Average	Good
5	Good	Average
6	Good	Average
7	Good	Good
8	Good	Good
9	Good	Good
10	Average	Average
11	Average	Average
12	Good	Average
13	Good	Good
14	Average	Below Average
15	Good	Average
16	Average	Average
17	Good	Good
18	Good	Excellent
19	Good	Good
20	Average	Below Average
21	Good	Average
22	Good	Excellent
23	Good	Average
24	Excellent	Good
25	Good	Good
26	Good	Good
27	Good	Average
28	Average	Below Average
29	Good	Average
30	Good	Average
31	Excellent	Good
32	Average	Good
33	Average	Good
34	Average	Good
35	Average	Good
36	Good	Good
37	Good	Good
38	Average	Good
39	Average	Good
40	Good	Excellent
41	Good	Excellent
42	Good	Good

Student Number	Student's Rating	Principal's Rating
43	Good	Good
44	Average	Below Average
45	Good	Average
46	Good	Good
47	Good	Good
48	Good	Average
49	Excellent	Average
50	Good	Average
51	Excellent	Good
52	Average	Good
53	Average	Average
54	Good	Good
55	Good	Average
56	Good	Good
57	Good	Average
58	Good	Good
59	Good	Good
60	Average	Average
61	Good	Good
62	Good	Average
63	Excellent	Good
64	Average	Average
65	Good	Good
66	Good	Good
67	Average	Excellent
68	Average	Below Average
69	Good	Good
70	Good	Good
71	Good	Average
72	Good	Average

Summary of Ratings	Student's	Principal's
Below Average	0	5
Average	21	25
Good	46	37
Excellent	5	5

Student and Principal assigned the same rating in 32 cases.
Student rating was higher than principal's in 27 cases.
Principal's rating was higher than student's in 13 cases.