EFFECTIVENESS OF TEACHING AGRICULTURAL EXTENSION AT TERTIARY LEVEL OF EDUCATION IN KANO STATE, NIGERIA

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A THESIS SUBMITTED TO THE POSTGRADUATE SCHOOL OF AHMADU BELLO UNIVERSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (AGRICULTURAL EXTENSION AND RURAL SOCIOLOGY)

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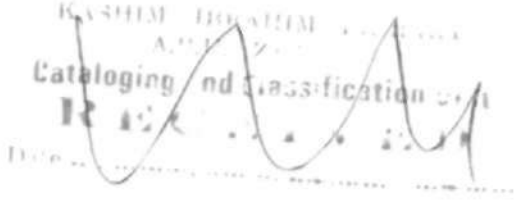
FEBRUARY, 1999

DECLARATION

I hereby declare that this thesis has been written by me and that it is a record of my own research work. It has not been presented before in any previous application for a higher degree.

Garba Abubakar Inusa
Name and Signature of candidate

Date 25/4/99.



CERTIFICATION

This thesis entitled "Effectiveness of Teaching Agricultural Extension at Tertiary Level of Education in Kano State, Nigeria" meets the regulations governing the degree of Master of Science of Ahmadu Bello University, Zaria, and is approved for its contribution to scientific knowledge and literary presentation.

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DEDICATION

This work is dedicated to my parents

ACKNOWLEDGEMENTS

All praise due to Allah for enabling me accomplish this work successfully.

I wish to express my immense appreciation and gratefulness to Dr. S.A. Ogunwale, my major supervisor, whose help and direction guided me at every stage of the study. The same appreciation is extended to my second supervisor, Prof. T.K. Atala, more particularly for giving me time and guidance whenever needed which greatly enhanced the speed of this work. I also wish to thank Prof. J.P. Voh and Prof. L.A. Ega for the interest shown in the progress of this study.

I am indebted to Kano State Polytechnic for granting me study leave and to Dr. S.U. Aliyu, my School's Director for his encouragement. I thank Mr. Kuhe, A.J., Musa Abubakar and Malam Falalu Sha'ayau, the College Chief Examination officer. Without their co-operation I would not have had the students' results used in this study. My profound gratitude goes to Malama Maryam Ahmed Yakasai and Amina Mohammed Y. Gwadabe who also gave financial and moral support, the opportunity to further my knowledge.

I would also like to express my indebtedness to fellow post-graduate students, and the members of staff in the Department of Agricultural Economics and Rural Sociology, Ahmadu Bello University, Zaria for their constructive criticisms during the presentation of the research proposal. Their comments proved useful in re-structuring my investigation.

Sincere appreciation is also extended to Ahmed Nuhu of the Director's Office, Institute for Agricultural Research (IAR), Samaru for typesetting this thesis.

G.A. Inusa (1999)

ABSTRACT

This study explored the major subject areas and reasons for students' difficulties in agricultural extension at tertiary level of education in Kano State. Structured questionnaire was used for the data collection. Data were collected from a sample of 86 students on the following variables: Age, sex, marital status, sponsor, level of formal education, interest and experience, and on the socio-cultural factors: motivation, aspiration, value and belief. The method of analysis used involved chi-squared statistic, mean, ranking, frequency and percentages. The mean and percentages were used to identify the difficult and easy units and topics. While frequency and ranking were used to find the reasons for students' perception of difficulty in agricultural extension. Chi-squared statistics was used to determine the relationships between personal characteristics, certain socio-cultural factors and students' level of performance. The problems students experienced while learning the course and their reasons for lack of interest in becoming agricultural extension workers were identified by the use of percentages. The results indicated that:

1. Fifty percent of the unit areas - Role of Communication, Innovation and Adoption, Extension Administration and Role of Research Institutes were found difficult.
2. More than one quarter (40.6%) of the topics studied in

National Diploma Agricultural Extension were identified difficult by the students.

3. "Unit is not easy to learn" ranked first with a mean of 25.3 was the students' greatest obstacle in finding the unit difficult.

4. More than sixty three percent (63.9%) of the respondents passed the course with or above fifty marks, out of which 40.7% and 23.2% were males and females, respectively. The mean pass mark was 51%.

5. Significant relationship was found between age of the respondents, family size, experience, motivation, value and performance. While no significant relationship was realized between gender, marital status, sponsorship, interest, level of formal education, aspiration and belief with the students' level of performance at 0.05 level. This therefore meant that performance is dependent upon certain personal characteristics and socio-cultural background of the individual.

6. The effectiveness of teaching and learning agricultural extension in Audu Bako School Of Agriculture is limited by the following factors: That more than forty percent (40.7%) of the respondents claimed that inadequate amount of equipment was the major problem they encountered in learning agricultural extension. This may not be unconnected with the increasing number of students admitted in the programme. Other problems mentioned

included: Lack of text books (23.3%), lack of enough time to participate in the course (18.6%) and lack of suitable teacher (17.4%).

7. Finally, low pay, expressed by about one-third of the respondents (31.4%), was found to be one of the main reasons for students' lack of interest in becoming agricultural extension workers in the study area. The findings of this study therefore recommend that extension workers should be given additional remuneration - just a little bit higher than others to really emphasis the importance of their role in agricultural development.

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CHAPTER 1

1.0 INTRODUCTION

Nigeria is predominantly an agricultural country. Inspite of the pre-eminent position of the petroleum sub-sector especially in the area of income generation, the agricultural sector still plays a significant role in the overall economic growth and development of the country. The important roles are clearly observable in the areas of employment generation, provision of adequate raw materials to our growing industrial sector, sources of foreign exchange earning and the provision of adequate food for the growing population.

Agriculture is a production process based on tne growth of plants and animals. The most central factor in this process is man. The extent to which man is able to control the various elements involved in the production process determines to a large extent the level of agricultural development. Thus, man as a central figure in agricultural development must as a producer, be able to draw up future production plans and manage available resources. He must also be able to protect the products of his efforts against potential competitors - pest and diseases, "human predators", he has to look for markets for his products, and if necessary store or process them to get a better price. But agricultural

development cannot be brought about by the producer or farmer alone. He has to be in touch with changing technology, he also needs production incentives. Thus, agricultural development is a function of several inter-relating factors both within and outside the agricultural sector, as well as within and outside the country, since world economic factors exert their own impact on a nation's agricultural progress.

The primary link between the farmer and the factors external to his immediate environment and knowledge is extension. The central task of extension is to assist people learn about and take advantage of new opportunities related to agriculture and the rural family. The extension worker has to work mostly with adults, and seek to influence what they believe, what they value, what they do the objective being to change them for the better and improve their standard of living.

Extension has to be based on the needs of farmers. Such needs vary from increasing farm productivity to locating farm supplies, credits, better home management techniques etc. Beyond all these, extension should be able to organise farmers to make arrangements for meeting their needs, and guide them to analyze their farm business. Thus, agricultural extension is an essential catalyst for agricultural development.

1.1 Problem Statement

Many of the mid-20th century extension communication

School of Agriculture, reinforced by comments of other teachers I discussed with has inclined me to conclude that students have difficulties in agricultural extension generally. Students' views and results of school examination in agricultural extension has also tended to confirm this conclusion.

The following were the research questions raised that were posited:

(a) What are the areas students have major difficulties in ND agricultural extension?

(b) What are the reasons for the perceived difficulty in some units of the ND agricultural extension syllabus?

(c) What are the socio-cultural variables that affect students performance?

(d) What sort of problems are responsible for the in-effective teaching and learning of the course?

(e) Why are students reluctant to take career in agricultural extension?

(f) What measures are necessary for removing the identified obstacles in the learning of agricultural extension?

1.2 Objectives of the Study

The broad objective of this study is to make an investigation into students' major areas of difficulty in agricultural extension course at National Diploma Level in Audu Bako School of Agriculture, Danbatta.

The specific objectives of the study were:

1) To find out the subject areas that presented difficulties to National Diploma students.

2) To find out why those areas presented such difficulties to students.

3) To determine the relationships between personal characteristics, certain socio-cultural factors and students' level of performance in the course.

4) To determine the problems that are experienced by the students in learning agricultural extension.

5) To identify some socio-economic reasons for students' lack of interest in becoming agricultural extension workers.

6) Make suggestions on how to remedy the situation.

1.3 Significance of the Study

The Nigerian agriculture and indeed, that of any developing country is characterized by low productivity, partly because of the use of primitive methods of production (Oluwasanmi and Alao, 1964:10). For this reason, there is growing emphasis on the need to rapidly transform the traditional agriculture.

Both the Federal and State Governments are quite aware of the role which agricultural extension plays in transforming traditional agriculture to a more technologically advanced stage. Farmers have to be informed of government agricultural policies and persuaded that they will benefit from any changes or modifications to their traditional practices. This demands well-trained and efficient extension officers.

The importance of agricultural extension knowledge to the field extension workers cannot be over-emphasized. This is because for the extension workers to properly and effectively

disseminate agricultural information to farmers, they must have an understanding of the basic extension concepts, principles and methodology among others. It would be a waste of human and material resources to continue to accumulate research findings on agricultural practices without transmitting the findings to the ultimate consumers who are the peasant farmers.

Martinez (1982:9) pointed out that, "the major role of extension officers is to transfer appropriate technology more efficiently". Obibuaku (1983:83) was of the opinion that, "the ability of an extension worker to guide farmers from awareness to sustained adoption of farm practices is dependent on his training and experience in agriculture and extension methods". To face the challenges ahead under the newly introduced extension system in the country (unified agricultural extension system), the field extension worker needs the knowledge of extension if he is to properly convey farm innovations under the crop, livestock, fisheries and agro-forestry sub-sectors of agriculture.

In the light of the foregoing, the importance of this study lies in the fact that it attempts to focus attention on the problems of learning agricultural extension which hitherto has not received much attention in Audu Bako School of Agriculture, Danbatta. It aimed at finding out the students' socio-economic reasons for not willing to take career in agricultural extension.

It is hoped that its result will help clarify those areas in agricultural extension that students find difficult to learn and understand. The findings will highlight those areas and topics that should claim more attention of lecturers and students at ND level.

It is hoped that with clear knowledge of students difficulties in agricultural extension, the direction for further related research would be given a sharper focus, with the eventual effect of aiding improvement in agricultural education in this country. If the socio-economic reasons for the students' reluctance to take career in agricultural extension are known, this would help the government and extension administrators in designing appropriate strategies that will persuade more youths to become agricultural extension workers in the future. This will go a long way in reducing the extension workers to farmers ratio in the country. The knowledge of this study will be of great value to agricultural information communicators, extension administrators, researchers and the policy makers.

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CHAPTER 2

2.0 LITERATURE REVIEW

2.1 The Meaning of Extension

Fenley and Williams (1964:2) offer a succinct operational definition of extension as: "extension education brings about improvement in a systematic way, through carefully planned and organised programmes. These programmes start in the villages, and tackle problems the villagers themselves see and want to do something about. Extension education is voluntary, carried on out of school, directed to adults concerned with their livelihood. Based on sound principles of teaching and learning, it is carried on thoughtfully and systematically in an atmosphere of mucual trust and respect".

According to Saville (1965:3), "the aim of all extension work is to teach rural people how to raise their standard of living, but with the minimum of assistance from government, and by their own efforts using their own resources. It encourages progressive growth through local leadership, self-help and civic pride".

Williams (1985:69-70) said, "Extension has three basic tasks:

1. Disseminating useful information,
2. Applying it to the analysis of practical problems, and
3. Helping people to use it to help themselves.

He went on to say that, "the scope of extension is very broad. It is not a mere matter of giving the farmer actual knowledge from new research and technology, to help him raise his efficiency. It is this of course, but it is more. It hopes to change his view of life, to persuade him and his family that they may reach and enjoy a higher and richer existence".

According to Leagans (1961:32), "It can be the primary means through which farmers learn about change - the reason for it, its value, the results it can achieve, the process by which it is arrived at, and also the uncertainties inherent in it. Extension education also is the main way in which farmers can learn what alternatives exist in farming, so that among these they may make the best choices for themselves".

Adams (1984:1) said, "Advice and assistance for farmers to help them improve their method of production and marketing is called agricultural extension".

According to Akande (1976:6), "Agricultural Extension is an educational service organised and designed to bring scientific methods developed at research centres to farmers. Farmers' problems should be transmitted to the research institutes for analysis. This process if effectively carried out can increase farm production and family income, thereby making social and cultural life worthwhile".

Wudil (1980:3) defined agricultural extension as, "provision of educational and advisory services in informal

style to farming communities to improve their agricultural production and quality of life, through introduction of new skills and production of newly developed inputs of production by institutionalised system".

Chang (1962:7) said, "Agricultural extension is an informal out of school educational service for training and influencing farmers (and their families) to adopt improved practices in crop and livestock production, management, conservation and marketing. Concern is not only with teaching and securing adoption of a particular improved practice, but with changing the outlook of the farmers to the point where he will be receptive to, and on his own initiative continuously seek, means of improving his farm business and home".

Farquhar (1962) in Maunder (1973:3) defined extension as, "a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living, and lifting the social and educational standards of rural life".

Mosher (1958:52) was of the view that, "extension education is a process of informal education designed to help people learn new skills, knowledge and attitudes as the basis for making changes in their way of living and making a living".

Donald (1976:27) in his definition says, "Extension service is that part of activities which provides farmers with

technical advice as a guide to improve their farming methods and less frequently with economic information about their production and management problems to assist them in analyzing the alternatives available and making decisions, about farm operations".

To Bogunjoko (1981:5), "Agricultural extension is a service or system which assists farm people, through education procedure, in improving farming methods and techniques, increasing production efficiency and income, bettering their level of living and lifting the social and educational standard of rural life".

While Van den ban and Hawkins (1985:9) said "extension involves the conscious use of communication of information to help people form sound opinions and make good decisions".

2.2 Concept of Training

Training refers to the process of applying appropriate educational methodology to those situations in which improved performance can result from effective learning (Clark, 1973:3). Flippo (1965:226), or the other hand, defines it, "as the act of increasing the knowledge and skills of an employee in doing a particular job". VanDersal (1968:97), seems to equate training with education, he considers it "the process of teaching, informing, and educating people so that they became well qualified to do their work and to perform in a position of greater difficulty and responsibility". He goes

on: "Training has to be a two-way process. Someone must teach and someone must learn". Another point of view is presented by McCormick and Tifflin (1965:267) who regard training as, "any planned organized effort that is specifically designed to help individuals develop increasing capabilities". Stone (1958:26) assert that, "training can be broadly classified as "(a) inspirational, (b) informational, (c) operational, and (d) professional".

2.3 Teaching - Learning Process

Smith (1989) in Akuezuilo (1989:7) defined teaching as a "process of interaction between teacher and students as a way of working with subject-matter of instruction, and a system of actions intended to produce learning". Chanoch (1993:39-46) said, "Teaching is the art of changing peoples' behaviour by facilitating the learning process for them". Clark (1968:8) viewed teaching as, "activities that are designed and performed to produce change in student (pupil) behaviour". Dalan, et. al. (1959) in Okorie (1979:1) feel that, "teaching is the guidance of pupils through planned activities so that they may acquire the richest learning possible from their experiences". Also, Ali (1982:3) believed that, "the teaching act is a process of integration of cognitive, affective and technical components into a sequence of activities aimed at the attainment of a selected learning goals or outcomes". Hudgins (1971:28) said, "When a teacher introduces an idea or

concept or undertakes an activity with the intension or hope that his pupils will learn something or acquire some knowledge as a consequence, that activity represents an example of teaching". Kuethe (1968:13) defined teaching as, "Causing people to learn". Buttressing the above idea, Kilpatrick (1925:168) said, "We haven't taught till the child has learnt".

One thing that is, however, common to the diversity of activities described above which can pass for teaching is that for any activity to be labelled "teaching", its intention must be to bring about learning. An individual is said to have learned when he exhibits identifiable change in behaviour. The change in behaviour could be easily achieved and recognised if the teacher can specify what he is going to teach and what his students will be able to do as a result of his teaching (Akuezuilo, 1989:8). Chanoch (1993:39-46) was of the opinion that, "Learning is the process where by new behaviour patterns are acquired". Robinson (1980:10-12) said, "Learning involves the numerous different processes an organism or an individual goes through to acquire a skill which becomes evident in a change in the organisms or individual's behaviour. Gagne (1965:2), "Learning is a change in human disposition or capability which can be retained and which is not simply ascribable to the process of growth". While Blair (1968:48) said, "Learning is a change in human behaviour which is a result of experience and which causes

people to face later situations differently".

2.4 A Brief Historical Background of Agricultural Extension Services in Nigeria

The history of the development of agricultural extension in Nigeria has been a long struggle for modernisation, establishment and reforms of various organisations in the hope of dramatically improving the welfare of the rural farmers. This struggle cannot be said to have succeeded.

The history may be divided into three main periods:

1. The period of foundation of research infrastructure for development by colonial administration: 1893 to 1959,
2. The period of independence and expansion of extension efforts: 1960 to 1970, and
3. The period of frantic efforts to be self sufficient in food production 1970 to date (Yazid, 1983:1-13).

The 1893 to 1920 period was described as the period of extension in embryo, characterized by experimental production of export crops (Wudil, 1980:3). During this period, emphasis was laid on importation of foreign crops, to trials at the Moor Plantation and Samaru (Yazid, 1983:4).There were notable achievement in the development of modern agriculture when two departments of agriculture were created in the South at Moor Plantation in 1910 and in the North by 1912, at Samaru, Zaria (Williams and Williams (1972:12), Yazid, 1983:6). And the establishment of the National Department of Agriculture in 1921 by the Central Government marked a milestone development

(Williams and Williams, 1972:13). During this period agriculture indirectly financed major development projects in the country.

The constitutional changes of 1954 which brought about regionalisation, saw the establishment of Ministry of Agriculture with extension Services under the chief agric. officer in the North and Chief of agric. in the East (Yazid, 1983:7).

In the period of 1960 to 1970 was a period of independent thoughts for Nigeria, in 1962 the government requested from the Food and Agricultural Organisation (FAO), to study agricultural sector and make recommendations for a long term development on National basis, the report submitted in 1964, with fifteen years of agricultural development plan, "Agricultural Development in Nigeria, 1965-1980". The recommendations covering all aspects of crop, livestock and fisheries. The government accepted the recommendation and established Federal Ministry of Natural Resources and Research in April 1965, which was later changed to Federal Ministry of Agriculture and Natural Resources, and set up a high powered National Agricultural Advisory Committee (NAAC) with some terms of reference. The Federal Government started to develop feelings of dissatisfaction with agricultural development agencies as the 1970s approached (Research and extension) (Yazid, 1983:11). This occurred to planners that absence of impact was due to isolationist strategy hitherto adopted, and

furthermore, that a number of factors required for agricultural development such as good roads network, water supply, health, etc. were lacking. The realisation led to the establishment of twenty three research institutes, Four Federal departments, four National development committees, with members from State Ministries and members from the Universities, research institutes and served by the departmental planning division. And also it led to the establishment of (IRD) Integrated Rural Development.

In 1974/75, the Government of the Federal established the first generation of Agricultural Development Projects (ADPs) in Funtua, Gombe and Gusau, later other ADPs were established throughout the Federation with the use of World Bank loans. The ADPs were meant to provide effective extension services for all aspect of agriculture and also to provide basic rural infrastructures, efficient procurement centres for farm inputs. It was later discovered that apart from the indebtedness to the world bank, these projects have brought the economic control of Nigeria externally (Ega, 1988:8). Other projects established were the university of Ibadan Pilot Project at Badeku, while the university of Ife (now Obafemi Awolowo University) was in a full guidance of Isoaya Rural Development Project.

The National Agricultural Extension and Research Liaison Services (NAERLS) in Zaria was established to reduce research findings to a format that is useful to extension staff and

farmers in general.

Some non-governmental organisations in the country have also been involved in extension services in some part of the country. They include the Nigerian Tobacco Company (NTC), Zaria, Philip Morris, Church organisations, etc. These non-governmental organisations had recorded some degree of success in extension activities.

The T & V system of extension was introduced into the World Bank-assisted Agricultural Development Projects (ADPs) which were just established in Nigeria in 1975, to replace the in-effective extension services of the erstwhile Ministries of Agriculture. The system was designed to improve the competence of extension agents and the productivity and income of farmers and meet the food and agricultural export needs of the country (Atala, et al, 1992:60). These were to be achieved through the key features of the T & V system which include regular and continuous training of extension agents and farmers visits, concentration of efforts on only extension activities, single line administrative and technical command, field-farmer orientation, strong research-extension linkages and extension professionalism (Benor, et al, 1984:13).

In order to adopt these features vigorously, certain structures and mechanisms including Monthly Technology Review Meetings (MTRMs) of researchers and subject matter specialists (SMSs) of ADPs, Fortnightly Training (FNTs) of Field extension workers, On-farm Adaptive Research (OFAR) trials, and Small

Plot Adoption Techniques (SPAT) for demonstration of the superiority of recommended practices were introduced in 1986 (Atala, et al, 1992:68).

Sooner than later, however, the T & V system became known to be an expensive extension strategy in terms of physical, human and financial resources. It has also become apparent that it is one thing to introduce a new theoretically sound extension approach and another to ensure its effective implementation (Atala, et al, 1992:61).

At its 1989 meeting in Maiduguri, the National Council on Agriculture adopted a memorandum which culminated in the present national policy on the unification of the extension system. At its Port-Harcourt meeting in February 1990, further clarifications with respect to the implementation of the policy, were made and states were advised to adopt the system as a matter of urgency.

The Unified Extension Service (UES) currently being implemented by ADPs in Nigeria and using T & V system of delivery requires only one contact point - the VEA for message delivery to the farmers (Bolorunduro and Arokoyo, 1993:12).

The concept of unification of extension services implies that parallel extension services, as carried out by the Agricultural Development Projects and the various Department of the State and Federal Ministries of Agriculture as well as specialised development schemes, would cease to exist. The parallel system will be replaced by the provision of extension

services by the ADP, which will have full administrative control over the entire extension services covering crops, livestock, fisheries, and agro-forestry through a single front line agent.

The implication of this is that, "the VEA must have a reasonable degree of knowledge/competence in crop, livestock, fisheries, agro-forestry and communication skills to be effective. He must also be able to relate to the SMS in these various disciplines during FNTs when the various messages/packages are imparted to him," (Bolorunduro and Arokoyo, 1993:15).

2.5 Historical Background of Colonial Schools of Agriculture

The history and development of intermed'ate agricultural education in Nigeria had been more on the needs of agricultural research and extension than a deliberate attempt to evolve a fundamental policy of training for job opportunities (Onazi, 1983:13). The same author established that the early development of intermediate-level agricultural education in Nigeria was generally restricted to the training of such low level personnel as were considered essential for the promotion of particular export crops such as cotton, groundnuts, cocoa, palm produce etc. for British industries. It followed that training for work was never seen by the colonial administration as fundamental to education. Consequently, agricultural education in the colonial era is

neither related to the nations economic or social conditions of the time nor the likely trend in the future.

The first agricultural training institution was established at Moor Plantation, Ibadan, in 1921, with the objective of training junior and intermediate technical manpower for the Research Institute and the Experimental Stations being established all over the country. In 1931, another school was established at Samaru Zaria, with the main objective of training junior technical workers for agricultural services in the northern part of the country. The two schools were administered by the Department of Agriculture as a service unit since the main activity of the Department was the promotion of export crops.

2.6 Schools of Agriculture in the Post-Colonial Era

The post-colonial era witnessed the establishment of several schools of agriculture in various parts of Nigeria, on account of the shortage of technical agricultural manpower necessary for the first National Development Plan (1962-1968). The school of forestry Ibadan (1941), the school of Agriculture Akure (1954), Umudike (1955) and Kabba (1964) emerged as a result of this realisation. The schools were administered as part of the then regional Ministries of agriculture and were mainly concerned with the training of agricultural assistants and supretendants for the extension services and for the few research institutes in the country.

More schools of agriculture were established during the second and Third National Plan periods (1970-1974 and 1975-1980). After the creation of states in 1967, some of the new states established schools of agriculture of their own. It was argued that the existing schools were inadequate for training enough technical manpower for the execution of various agricultural projects embarked upon by the new states. Many more schools of agriculture were established during the Fourth National Development Plan period (1981-1985). With the creation of other states in 1991, more new schools of agriculture were established in the country.

The problems militating against the smooth running of the schools of agriculture in Nigeria were highlighted by Olumeyan and Anaso (1987:10). Prominent among these were acute shortage of necessary supporting infrastructure, shortage of qualified and high calibre agricultural teachers and the organisational structure.

2.7 The Organisation of Schools of Agriculture

Both the Federal and State governments and a host of other institutions offer intermediate level programmes in agriculture in Nigeria. Onazi (1983:28), categorised the institutions offering agricultural and related courses at the intermediate-level as follows:

(a) State schools and colleges of agriculture founded by the state for the purpose of training intermediate and

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junior-level manpower for the agricultural programmes in the states.

(b) Colleges of agriculture affiliated to Federal Ministries namely Agriculture, Water Resources and Science and Technology which direct their programmes.

(c) Colleges of agriculture affiliated to universities namely, the Division of Agricultural Colleges of A.B.U., Institute for Agricultural Research and Training of the University of Ife (recently re-named Obafemi Awolowo University) and the Diploma programmes in the Faculty of Agriculture, University of Nigeria, Nsukka.

(d) Diploma programmes in Polytechnics which are designed for competence in agricultural and irrigation engineering.

(e) National certificate of Education programme in agricultural sciences which are essentially teacher education programmes.

According to FAO report (Anon, 1970:27), intermediate-level agricultural training is generally, the last developed. In many African countries, this level of education is divided into ordinary (Lower) diploma and higher diploma levels. In Nigeria, candidates are usually selected from the best available students with West African School Certificate or its equivalent, for the ordinary diploma programme.

With increase in the number of schools of agriculture, there also appeared to be a proliferation of agricultural courses. In principle, this would allow for some

specialization at that level. However, Efionayi (1981:12) observed that, "the system of proliferation in the establishment of independent training institutions would be attended by lack of over-all national planning, due to diversity in the administration, organisation and financing of the various schools. The result of this is variation in the academic standards. This unpleasant situation is aggravated by the absence of a co-ordinating body responsible for advice on policy matters relating to agricultural education and training in the country.

2.8 Co-ordination of Intermediate Agricultural Education

The need for co-ordination of intermediate-level agricultural education and training has long been recognised. A number of reports by authorities commissioned by the Federal government have at various times advised on the need for the establishment of a co-ordinating body for agricultural education. Thus, while Rowat (1964:5) recommended the establishment of a National Council on Agricultural Education, the FAO (1966:9) emphasised on the need for a National Advisory Council for Agricultural Education in Nigeria. In its final report, the Consortium for the study of Nigerian Rural Development (CSNRD), 1965-1969 recommended the establishment of an advisory committee on agricultural education which should be charged with the responsibility of co-ordinating agricultural education and training.

The decree establishing the Agricultural Research Council of Nigeria provides for the Council to assume responsibility for policy formulation, implementation and co-ordinating of agricultural education and training. Onazi (1976:16) noted that the Agricultural Research Council was handicapped by inadequate human and financial resources as well as the organisational framework to perform this responsibility efficiently. The FAO (Anon, 1970:27) repeated the recommendation to its member countries for the formation of a co-ordinating body for agricultural education and training. It suggested that the co-ordinating body should play a key role in bringing together the training institutions, courses, number and quality of graduates in relation to the present and future trained manpower supply and demand situation.

Unfortunately, the co-ordination of agricultural education and training programmes was not carried out. The consequences are not unexpected (Olumeyan and Anaso, 1987:13). According to Onazi (1976:16), this deficiency is responsible for the difficulties encountered in introducing a national recognised certificate in agricultural science equivalent to Nurse's diploma, the National Certificate of Education (NCE) for teachers or Higher National Diploma (HND) for technicians. The implication is that agricultural diploma cannot easily be equated with other technical qualifications.

Today, the National Board for Technical Education (NBTE) with headquarters in Kaduna, is charged with the

responsibility of accrediting agricultural programmes in the schools of agriculture in this country. According to Iwang (1983:9), the purpose of accreditation of programmes in technical institutions are as follows:

(a) to promote and foster good quality technical education and training for the production of high quality technicians and technologists.

(b) to ensure parity of standards in all programmes offered in polytechnics and similar post-secondary institutions leading to award of National Diploma and Higher Diploma.

(c) to certify to the public that the particular programme has satisfied the minimum education requirements as laid down by the Board for the award of the National Diploma and Higher National Diploma.

(d) to give advice and assistance to institutions where necessary with a view to improving the quality of their programmes.

2.9 Tertiary Education in Kano State

The historical background of higher education development in Kano State dates back to 1973 and 1975 when two committees under the then Solicitor General, Alhaji Sani Aikawa and late Mallam Aminu Kano respectively were set up with a view to draw up recommendations on how best Kano State could meets its middle level manpower as well as absorb the increasing number of school products from our post-primary schools. In 1979,

therefore, an Edict was enacted establishing Kano State Institute of Higher Education comprising schools of Technology, Preliminary studies, Management studies, Audu Bako School of Agriculture, School of Social and Rural Development, Rano and Aminu Kano School for Islamic Legal studies. Following a review of the Edict in 1978 and 1983, the Advanced Teachers College, Gumel in the then former Kano State and College of Education, Kumbotso respectively were established. Since then these institutions have continued to expand in both their enrolment and the courses offered (KSIHE, 1985:6).

However, the must decisive step taken to set these schools on the path of progress was taken by the then Military Administration in 1986. The functions of the institute for Higher Educatic.1 were decentralized to allow for more efficiency. Thus, Kano State Polytechnic has under its responsibility the School of Management Studies (SMS), Audu Bako School of Agriculture (ABSOA), School of Social and Rural Development (SSRD), School of Technology (SOT) and Aminu Kano School of Islamic Legal Studies (ASILS). The Kano State College of Education on the other hand is comprised of Gumel and Kumbotso Colleges of Education while the Kano State College of Arts, Science and Remedial Studies continue with its programme of preparing referred post-primary school students to acquire their GCE O/Level certificates (KSP, 1993:13).

With the creation of Jigawa State from the former Kano

State in 1991 by the Babangida's administration, College of Education Gumel felt under Jigawa State, others remained as they were before the creation of the new state.

The new Kano State Polytechnic has five schools under a single central administration unit which co-ordinates, direct and controls the general administration and ensures execution of all policy matters.

2.10 Audu Bako School of Agriculture, Danbatta

Audu Bako School of Agriculture (ABSOA) was established in October 1978 with the objective of training middle manpower in the field of agriculture and it is owned by the Kano State Government.

It is one of the five unit schools under the Kano state Polytechnic. The Director is the Executive Head of the School and is responsible to the Rector. The Rector who is the Chairman of the Academic Board is responsible to the Governing Council. At the unit level, the Academic Committee which has the responsibility of policy making, defining the rules and regulations relating to academic matters, is the highest controlling body of the unit. The academic committee is constituted by five Head of Departments, the Chief Examination officer, the Deputy Director, two elected representatives of academic staff, the Director as Chairman and the Senior Assistant Registrar as the Secretary.

The Academic committee is responsible to the Academic

Board which is the highest academic organ of the polytechnic. The Board formulates, implements and executes policies on behalf of the Governing council. The Board has the responsibility of directing and managing of academic matters in the polytechnic including regulations of admission of students, award of certificates and Diplomas.

The school is administered on three fronts namely; general administration (including student Affairs), academic and Finance.

Academic functions are carried out under a departmental set-up with the Head of Department being answerable to the Director. Heads of Departments are directly responsible for maintaining and supervising all academic activities within their departments. The school has five departments namely, Crop Science and extension, Animal Health and Husbandry; Forestry, Irrigation and Mechanization and lastly Pre-ND and General Studies.

The Farm Manager who executes the policies of the farm management committee reports to the Director for other practical exercises organised by particular departments in which he too has some role.

The school has been set up for the training of middle-level personnel in agriculture and related fields. On completion of the programme the student should be able to:

i) find gainful employment in different agricultural

organisations e.g. River Basin Development Authorities, Ministries of Agriculture, Agricultural Development Projects as well as in the private sector.

ii) Supervise and manage up to medium-scale agricultural production unit.

iii) Perform the functions of an extension worker in assisting the rural people in improving crop and livestock production and agro-forestry.

iv) Work with research officers in agricultural or related research projects.

v) Take up large-scale farming as a career.

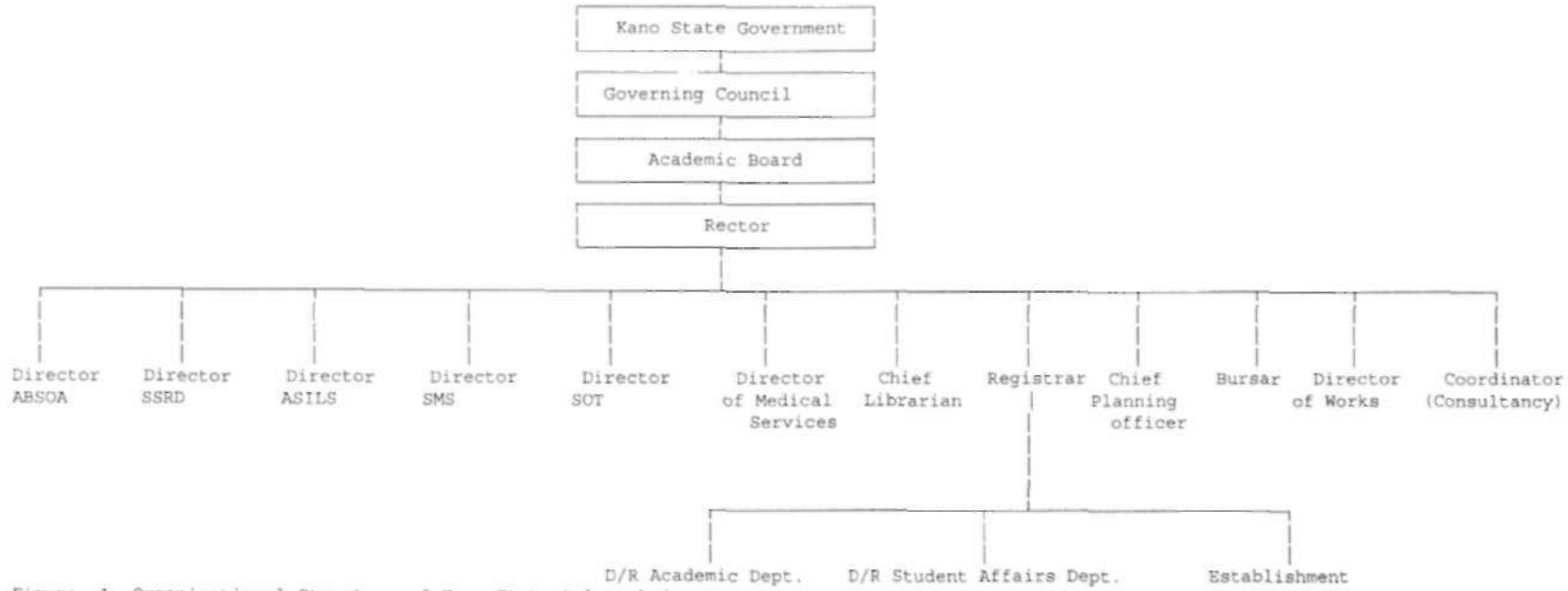


Figure. 1: Organisational Structure of Kano State Polytechnic

Source: KSP, 1993.

Key: ABSOA = Audu Bako School of Agriculture
ASILS = Aminu Kano School of Islamic Legal Studies
SSRD = School of Social and Rural Development
SMS = School of Management Studies
SOT = School of Technology

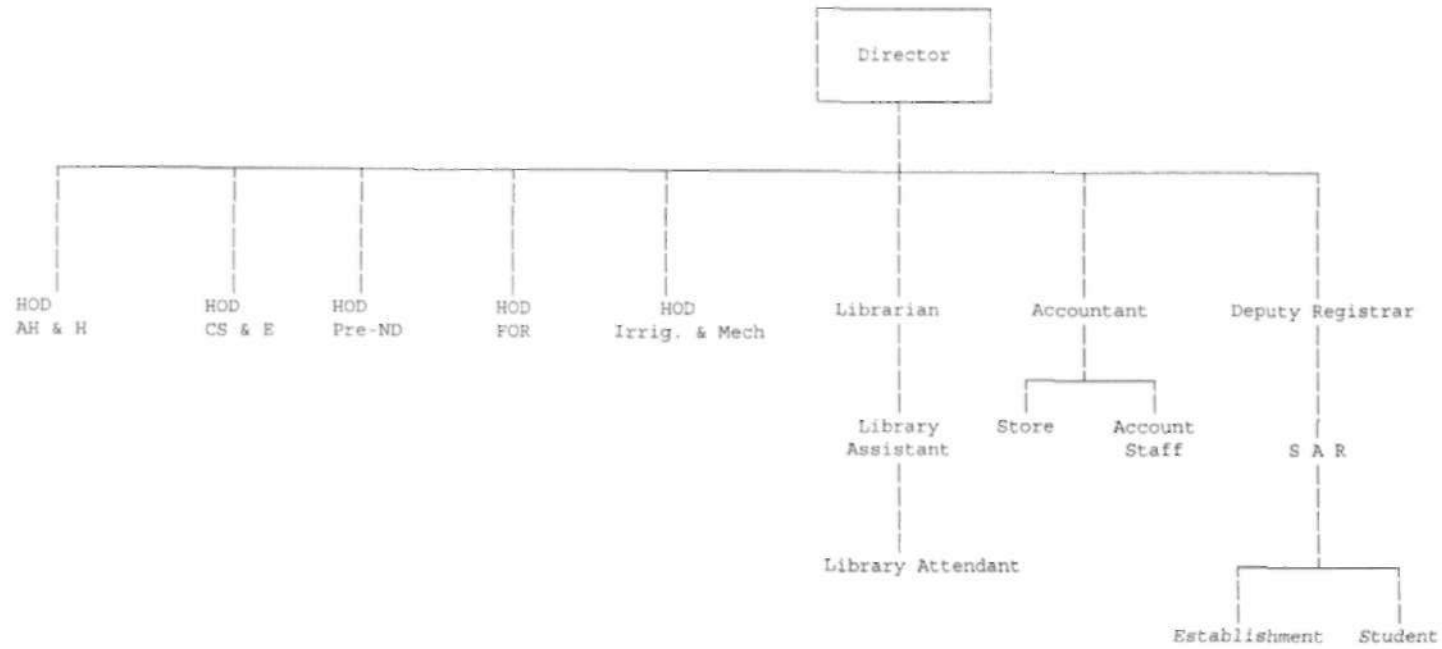


Figure 2: The Organisational Structure of Audu Bako School of Agriculture, Danbatta, Kano.

Source: KSP, 1993

Key: AH & H = Animal Health and Husbandry
CS & E = Crop Science and Extension
FOR = Forestry
SAR = Senior Assistant Registrar.

2.11 Theoretical Framework

Agriculture is the heart of rural development and without certain basic requirements, agricultural development cannot take place. First the necessary technical knowledge must exist, along with the means of communicating and applying it (Williams, 1985:69-70). It has been recognised in Nigeria that efficient extension services are a key to modernisation of the country's agriculture transforming it into productive, commercially oriented industry. In order to make a reasonable impact on the farming communities, agricultural extension will continue to require a large number of trained junior and intermediate staff (Obibuaku, 1983:82).

Glaser (1962:3-10) developed a teaching model. The basic teaching model divides the teaching process into four components namely; instructional objectives, entering behaviour, instructional procedures and performance assessment.

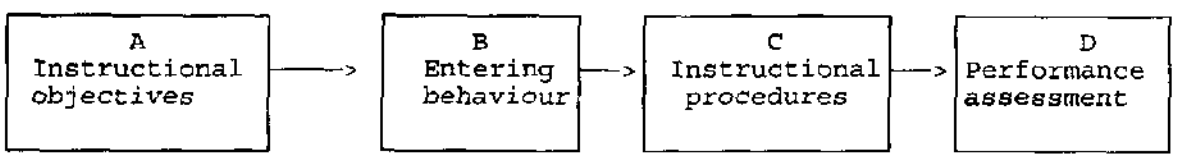


Figure 3: A basic teaching model (Glaser, 1962)

Instructional objectives (Box A) are those that the student should attain upon completion of a segment of instruction. Entering behaviour (Box B) describes the student's level before instruction begins. It refers to what the student has properly learned, his intellectual ability and development, his motivational state and certain social and cultural determinants of his learning ability. Instructional procedures (Box C) describe the teaching process, most decisions the teacher makes are on these procedures. Proper management of this component results in those changes in student behaviour which we call learning or achievement. Finally, performance assessment (Box D) consists of the tests and observations used to determine how well the student has ac'.ieved the instructional objectives.

Behaviourist are interested in the relationship between events over time. In this sequence, learning takes place through a process of conditioning of which there are two types: Classical (Pavlov, 1927:20-22) and Operant (Thorndike, 1913:37-38). These types as seen in the figure below, differ according to where the emphasis is placed in the temporal sequence:

antecedent -------> response ------> consequence
stimuli

Classical
emphasis _____

Operant emphasis ----------

In classical conditioning, learning occurs when a new or neutral stimulus is paired with an unconditioned stimulus (which generates an automatic or unconditioned response). Eventually the neutral stimulus becomes a conditioned stimulus which will elicit the response even without the presence of the original unconditioned stimulus. Such a response is called a conditioned response.

In operant conditioning, the focus of attention is not the antecedent stimuli but the behaviours (responses) which elicit consequent stimuli from the environment. Reinforcement is the process of increasing the behaviour, by adding a desirable consequence (positive reinforcement) or removing undesirable consequence (negative reinforcement). If consequences are removed for some behaviour, the behaviour will eventually extinguish (or cease). Punishment causes behaviour to decrease, either by the addition of an undesirable consequence (positive punishment) or the removal of a desirable one (negative punishment) (Rosser and Nicholson, 1984:32-33).

Clearly, the above models attempt to provide a clear-cut explanation of teaching and learning process. That is why this study considers them quite relevant. The focus of this study will therefore be to determine what are these difficult areas in agricultural extension and further find out whether personal characteristics and socio-cultural factors are

collection. It was measured as actual age given in years. For the purpose of testing the stated hypothesis, age was grouped into three categories, namely 20 - 27 years young students, and 28-35 years as middle aged students, and 36-43 years as old students. The mode for the sample was 27 years, this forms 18.6% of the sample. The lowest age for the respondents was 20.

2) Sex: This refers to the gender of the respondent. It is measured by the respondent's indication whether she/he is a female or male and were scored as one and two, respectively.

3) Marital Status: This refers to couples joined in marriage. Measured by the respondent's indication whether she/he is single or married. The variable was scored as follows: Single had a score of one, married had a score of two.

4) Sponsor: This refers to person or firm that pays for the student's training. It is measured by asking the student to indicate whether he/she is training under scholarship, private or in-service. The variable was scored as follows: those training under private sponsorship had a score of zero, those under scholarship had a score of one, and those under in-service training had a score of

two.

5) Family Size: It is felt that household size could have impact on the student performance while learning agricultural extension. Family size refers to the number of wives, children, relatives and dependents actually living with the respondent in his household at the time of collecting the data. It was measured by adding up the numbers reported. The total number constitutes the respondent's score on the variable. For the purpose of testing the empirical hypothesis, household size was grouped into four categories namely: (0) No household, (1-2) people, small household size, (3-4) people, medium household size and (5-6) people as large household size. The mode for the sample was used as the basis for the categorization. The mode was two, this forms 22.1% of the sample.

6) Level of Formal Education: This is defined as the number of years of formal or western education attained by the respondents. The total number of years spent schooling constituted the respondent's score on the variable. In order to test the empirical hypothesis, level of formal education was grouped into three categories namely: (1-6) years were regarded to have low level of education, (7-12) years as medium level of education and (13-18)

years were considered to have high level of education.

7) Interest: This refers to the ability of the student to find the course exciting. The variable is measured by asking the respondent to state whether he/she has interest in studying the course. The variable was scored as follows: those without interest had a score of one, those with interest had a score of two.

8) Experience: This was defined as the number of years the respondents have been working as extension workers. This was measured in terms of the number of years. The respondents were categorized into four using the mode as the basis for this. The mode was three years which was 16.3% of the sample. The lowest age of working experience was one year. Therefore the categorization were (0) No working experience, (1-3) years as low working experience; (4-6) years medium working experience and (7-9) high working experience.

9) Motivation: This means inducement to action. It was measured by asking the respondents' to indicate who encouraged him/her to take the course. Those who indicated the choice was based on their personal interest had a score of three, those stimulated to study the course by their organisation had a score of two while

others that were encouraged by either their parents, friend or relatives had a score of one.

10) Aspiration: This means desire to achieve a particular end. Aspiration of the student was measured by asking the respondents to state what he/she aspired to become after graduation. The variable was scored as follows: Any occupation mentioned apart from farming had a score of one, farming had a score of two, while extension work had a score of three.

11) Value: This means to think highly of a thing. The variable was measured by asking the students to state the extent to which they found the course useful. The variable was scored as follows: those who regard the course as being un-important had a score of one, those who considered it useful had a score of two, while those who found it very useful had a score of three.

12) Belief: This refers to an opinion that is held to be true. The variable was measured by asking the students to state whether he/she accepts or rejects the idea. The variable was scored as follows: those who rejected the idea had a score of one, those who indicated different opinion had a score of two, while those who accepted the idea had a score of three.

2.14 Dependent Variable

Performance was the dependent variable used in this study. This refers to the ability of the student to get high grade in the examination at the end of the course. The result was measured under five scales. 75 and above = A, 60 - 74 = B, 50 - 59 = C, 40-49 = D, and 39 and below = F. For the purpose of testing the empirical hypothesis, the student results were grouped into two categories namely: (50 - 100%) pass and (0 - 49%) Fail. The variable was scored as follows: those with marks from 0 to 49 had a score of one, while those whose marks ranged from 50 to 100 had a score of two.

2.15 Hypotheses

Hypothesis is a tentative generalization concerning the relationship between two or more variables of critical interest in the solution of the problems under investigation. Mouly (1978) advises that, "a research should proceed from a hypothesis for which without a hypothesis an investigation can deteriorate into a relatively aimless search for data of vague relevance and significance".

It is in recognition of the above observation that the following general and empirical hypotheses were advanced for this study:

General Hypotheses

a. There is no significant difference between the students'

personal characteristics and performance.

b. There is no significant difference between the students' socio-cultural factors and performance.

Empirical Hypotheses

1. There is no significant difference in level of performance between young and old students.
2. There is no significant difference in level of performance between females and males students.
3. There is no significant difference in level of performance between single and married students.
4. There is no significant difference in level of performance between non-inservice and in-service students.
5. There is no significant difference in level of performance between students with small household size and those with large household size.
6. There is no significant difference in level of performance between students with low level of education and those with high level of education.
7. There is no significant difference in level of performance between students without interest and those with interest in agricultural extension.
8. There is no significant difference in level of performance between students with low level of working

experience and those with high level of experience.

9. There is no significant difference in level of performance between low and high motivated students.
10. There is no significant difference in level of performance between students with low aspiration and those with high aspiration.
11. There is no significant difference in level of performance between low and high valued students.
12. There is no significant difference in level of performance between students with low and high beliefs.

CHAPTER 3

3.0 METHODOLOGY

This chapter focuses on the study area, sampling techniques, sample size, methods of data collection and statistical analysis used in the study.

3.1 The Study Area

Kano State lies within the sudan savannah vegetational zone with guinea savannah vegetation predominating in its southern borders. The state has an arduous climate with relatively wide and rapid changes in temperature and humidity. Humidity at times rises up to 100%. The average daily maximum and minimum temperature are 33.1°C and 15.85°C respectively.

The year is divided into rainy season and dry season. The dry season is from October to May. During the months of December and January, the harmattan is at its peak height blowing thin dust over the state from Sahara desert. At this time, the temperature can fall as low as 10°C. From March to May, however, the dry cold air turns into dehumiditized sparingly hot air with temperature rising up to and above 32°C.

Rainfall varies considerably from year to year ranging from 635.00 - 889.00 millimetres. Rainfall is concentrated

from June to September and the rains are preceded by violent dust-storms followed by tornadoes mainly during the month of May and close of the rains in September and early October. The average annual rainfall is 870.20 millimetres. According to 1991 census, the state has a population of 5,632,040 out of which 2,858,724 and 2,773,316 are males and females respectively.

Audu Bako School of Agriculture is located in Danbatta Local Government Area in Kano State. Danbatta is situated along the north of Kano, about fifty kilometres, on A-2 asphalt road connecting Danbatta with Kazaure in Jigawa and further to the north with Daura in Katsina State.

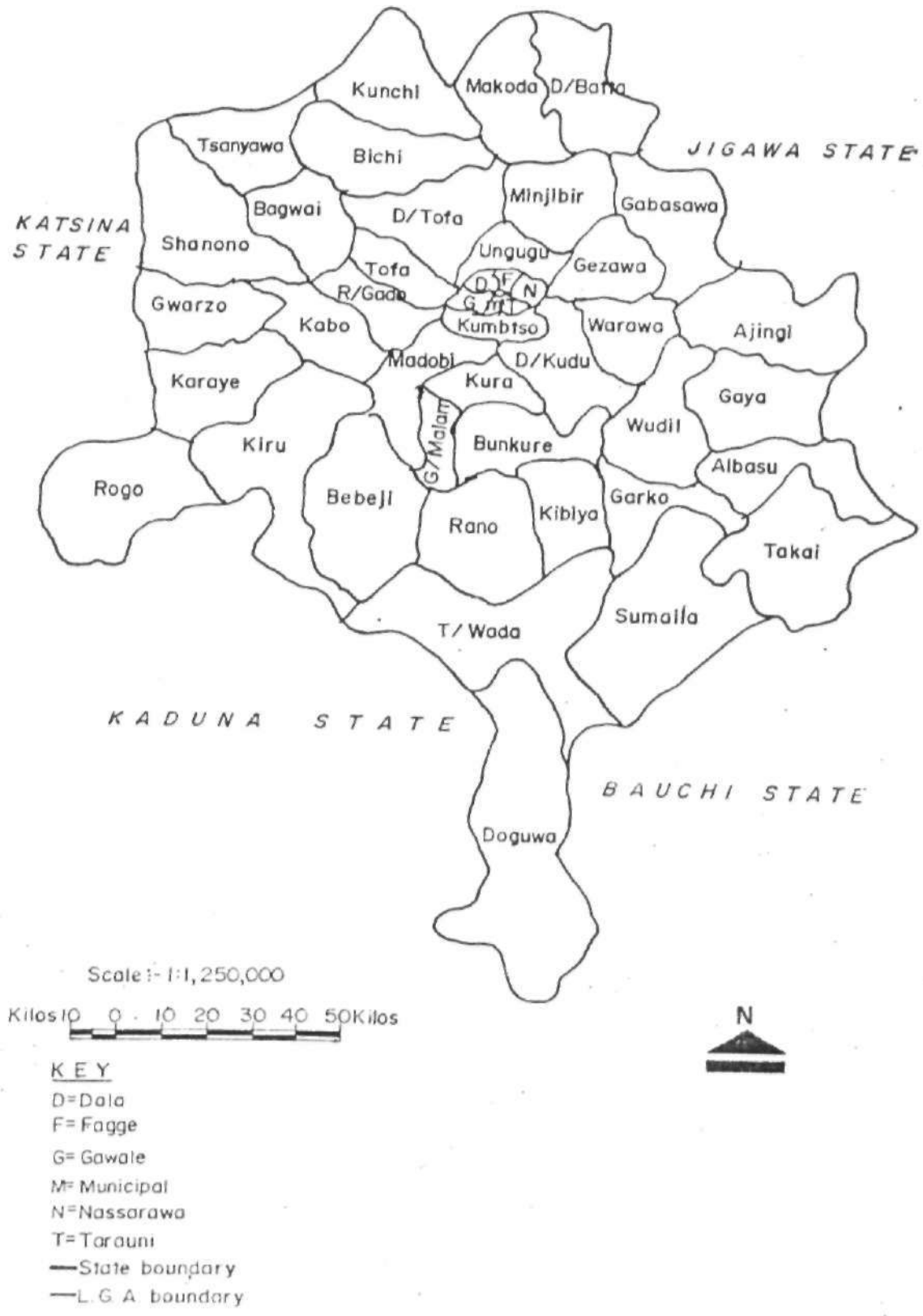


Figure 5: A Map of Kano State Showing the Study Area

Source : Survey Division of Ministry of Works, Kano

The study was carried out in Audu Bako School of Agriculture (ABSOA), Danbatta. ABSOA was established in October, 1978 with the objective of training middle-level manpower in the field of agriculture. ABSOA is located east of the Kano-Daura road, about seven kilometres to the main Danbatta town.

3.2 Sampling Techniques and Sample Size

There were eighty six (86) National Diploma II students taking agricultural extension course in the 1997/98 session. Being a small class size the population was purposively made the sample.

3.3 Method of Data Collection

The data were collected from both primary and secondary sources. Primary data were collected from students while secondary data were collected from various sources including Kano State Polytechnic, Ministry of Agriculture, National Board for Technical Education and National Education Research Council.

The data collection involved the use of structured questionnaire administered by the researcher and collected on the spot after completion. Information collected include personal data, level of difficulty, problems experienced by the students in learning agricultural extension and socio-economic and cultural data.

3.4 Statistical Analyses

The analytical techniques employed were as follows:

a) *Simple Descriptive Statistics:*

In this study, simple descriptive statistics were used to achieve objectives one, two and five. These statistics include frequency, percentages, ranking and mean. They were used to identify easy and difficult topics in agricultural extension. To find out the reasons for students' perceived difficulty in the areas identified, to determine the problems they experienced in learning the course and lastly, the statistics were used to find out their socio-economic reasons why they do not like to take career in agricultural extension.

b) Chi-squared Statistics:

It is represented by the formula:

$$X^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i}$$

Where: O_i is the observed frequency and E_i is the expected value. The Chi-squared statistic was used to determine the relationships between personal characteristics, certain socio-cultural factors and students' level of performance in the course.

CHAPTER 4

4.0 RESULTS AND DISCUSSIONS

This chapter presents and discusses the findings to the stated objectives in Chapter one.

4.1 Difficult Areas in Agricultural Extension

In order to achieve the first objective, the respondents were asked to indicate which of the topics they found difficult among the other topics in the National Diploma Curriculum.

In Table 1, four (50%) of the eight major areas of National Diploma Agricultural Extension were identified as easy by the students. These easy units were Scope and principles of agricultural extension, Extension teaching methods, Role of local leaders and Audio-visual aids with means of 1.77, 1.78, 1.84, and 1.94, respectively. Consequently, 50% of the unit areas were difficult. These difficulty areas are Role of communication with a mean of 2.45, Innovation and adoption with a mean of 2.36, Extension administration with a mean of 2.25 and Role of research institutes with a mean of 2.05.

Thus, half of the major areas of National Diploma in Agricultural Extension constituted some problems to students. This shows that the students had difficulties in learning the content of National Diploma Agricultural Extension in some

areas (Table 2).

Table 1 also shows that within the easy areas, there were some difficult topics. For example, in unit one - the Scope and principles of agricultural extension, History of agricultural extension in the world and Nigeria, the various components of agricultural extension and adult learning conditions were the topics identified as difficult by the students.

Similarly, within the difficulty areas, some topics were identified as easy. For example, in innovation and adoption (unit four) the 'meaning of innovation', 'adopter categories' and 'adoption process' were identified easy. On the whole, thirteen (13) topics were identified as difficult, representing 40.6 percent of the whole topics covered in the National Diploma Agricultural Extension. While nineteen (59.4%) topics were identified as easy.

Table 1: Descriptive analysis showing easy and difficult topics

UNIT ONE: *SCOPE AND* PRINCIPLES OF AGRICULTURAL EXTENSION	TOPIC	VE		ES		DF		VD		$\bar{X}$	REMARKS
		F	%	F	%	F	%	F	%		
	1. Definition of Agric. Extension	53	61.6	31	36.0	2	2.3	0	0.0	1.41	ES
	2. History of Agric. Extension in the World and Nigeria	16	18.6	42	48.8	25	29.1	3	3.5	2.17	ES
	3. Objectives of Extension.	47	54.7	35	40.7	3	3.5	1	1.2	1.51	ES
	4. Various components of Agric. Extension	23	26.7	46	53.5	15	17.4	2	2.3	1.95	DF
	5. Adult Learning Conditions	32	37.2	36	41.9	14	16.3	4	4.7	1.88	DF
	6. Principles of Agric. Extension	36	41.9	40	46.5	8	9.3	2	2.3	1.72	ES
	Total mean	34	40.1	38.3	44.6	11.2	13.0	2	2.3	1.77	EASY
	7. Individual Contact Method.										
TWO:EXTENSION TEACHING METHODS	8. Group Contact Method	27	31.4	43	50.0	15	17.4	1	1.2	1.88	DF
	9. Mass Media Method	46	53.5	26	30.2	13	15.1	1	1.2	1.64	ES
	Total mean	39	45.4	28.3	32.9	17	19.7	1.7	2.0	1.78	EASY

Table 1: Continued

	TOPIC	VE		ES		DF		VD		$\bar{x}$	
THREE: ROLE OF COMMUNICATION		F	%	F	%	F	%	F	%		REMARKS
	10. Communication	27	31.4	32	37.2	23	26.7	4	4.7	2.05	ES
	11. Different Elements in Communication.	6	7.0	33	38.4	43	50.0	4	4.7	2.52	DF
	12. Role and Characteristics of each of the Elements above	7	8.1	18	20.9	48	55.8	13	15.1	2.78	DF
	Total mean	13.3	15.5	27.7	32.2	38.0	44.2	7	8.2	2.45	DIFFICULT
FOUR:											
INNOVATION AND ADOPTION	13. Innovation	36	41.9	17	19.8	31	36.0	2	2.3	1.99	ES
	14. Adopter Categories.	15	17.4	31	36.0	36	41.9	4	4.7	2.34	ES
	15. Diffusion Process	5	5.8	31	36.0	42	48.8	8	9.3	2.62	DF
	16. Adoption process.	18	20.9	29	33.7	33	38.4	6	7.0	2.31	ES
	17. Social, Economic and Environmental Factors that Affect the Rate of Innovation.	13	15.1	26	30.2	36	41.9	11	12.8	2.52	DF
	Total mean	17.4	20.2	26.8	31.1	35.6	41.4	6.2	7.2	2.36	DIFFICULT

Table 1: Continued

FIVE: AUDIO-VISUAL	TOPIC	VE		ES		DF		VD		$\bar{X}$	REMARKS
		F	%	F	%	F	%	F	%		
	18. Role of Audio-Visual Aids.	46	53.5	31	36.0	8	9.3	1	1.2	1.58	ES
	19. Identification of Common Audio-Visual Aids Used in Extension Teaching.	31	36	42	48.8	12	14.0	1	1.2	1.80	ES
	20. Communication to People Using Audio-Visual Aids.	32	37.2	40	46.5	12	14.0	2	2.3	1.81	ES
	21. Maintenance and Service of Audio-Visual Aid Equipment.	9	10.5	30	34.9	38	44.2	9	10.5	2.55	DF
	Total mean	29.5	34.3	35.8	41.9	17.5	20.4	3.3	3.8	1.94	EASY
SIX: ROLE OF LOCAL LEADERS	22. Types of Local Leaders in Extension.	55	64.0	28	32.6	2	2.3	1	1.2	1.41	ES
	23. Methods and Roles of Local Leadership in Extension.	38	44.2	41	47.7	6	7.0	1	1.2	1.65	ES
	24. Merits and Elements of the Use of Local Leaders in Agric. Extension.	32	37.2	42	48.8	12	14.0	0	0.0	1.77	ES
	25. Para-Professionals in Extension.	8	9.3	36	41.9	32	37.2	10	11.6	2.51	DF
	Total mean	33.3	38.7	36.8	42.8	13.0	15.1	3	3.5	1.84	EASY

Table 1: Continued

SEVEN:	TOPIC	VE		ES		DF		VD		$\bar{X}$	
		F	%	F	%	F	%	F	%		REMA-RKS
EXTENSION ADMINISTRA-TION	26. Role of Subject matter Specialist.	23	26.7	27	31.4	32	37.2	4	4.7	2.20	ES
	27. Role of Intermediate Extension Staff.	14	16.3	36	41.9	32	37.2	4	4.7	2.30	DF
	28. Role of Village-Level Extension Agents (VEA).	28	32.6	26	30.2	29	33.7	3	3.5	2.08	ES
	29. Training and Visit System (T & V System)										
	30. Production of Agric. Technologies	31	36.0	29	33.7	24	27.9	2	2.3	1.97	ES
	31. Identification of Farmers Problem	25	29.1	37	43.0	21	24.4	3	3.5	2.02	ES
	32. Transmission of Research Findings to Farmers.	23	26.7	29	33.7	30	34.9	4	4.7	2.17	DF
	Total mean	26.3	30.6	31.7	36.8	25	29.1	3	3.5	2.05	DIFFI CULT

NOTATION: VE = Very Easy; ES = Easy; DF = Difficult; VD = Very Difficult.

Table 2: Descriptive analysis showing difficult units

		VE		ES		DF		VD		$\bar{X}$	RANK
UNIT	TITLE	F	%	F	%	F	%	F	%		
THREE(3)	ROLE OF COMMUNICATION	13.3	15.5	27.7	32.2	38.0	44.2	7.0	8.2	2.45	FIRST (1ST)
FOUR (4)	INNOVATION AND ADOPTION	17.4	20.2	26.8	31.1	35.6	41.4	6.2	7.2	2.36	SECOND (2ND)
SEVEN (7)	EXTENSION ADMINISTRATION	21.8	25.3	27.3	31.7	31.0	36.0	6.0	7.0	2.25	THIRD (3RD)
EIGHT (8)	ROLE OF RESEARCH INSTITUTES	26.3	30.6	31.7	36.8	25.0	29.1	3.0	3.5	2.05	FOURTH (4TH)

NOTATIONS: VE = VERY EASY; ES = EASY; DF = DIFFICULT; VD = VERY DIFFICULT.

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4.2. Reasons for students' perception of difficulty in Agricultural Extension

This part of the analysis focused on the reasons given by the respondents for finding the problem units difficult.

The result (Table 3) revealed that of the five reasons why students found Role of Communication, Innovation and Adoption, Extension Administration and Role of Research Institutes difficult, "unit is not easy to learn" was their greatest obstacle, ranking first with a mean of 21.3. "I do not like the unit" ranked second among the factors responsible for the students' difficulties with a mean of 18.3. "I do not have enough time studying the unit" ranked third with a mean of 17.8 while "The teacher does not explain well" ranked fourth with a mean of 15.3. Only a negligible proportion of the students felt that they had problems because they do not like the teacher.

Most of the reasons seemed to anchor on the first reason. This is because, the difficult nature of the units (reason one) might easily be responsible for loss of interest which made the student to become biased against the units (reason two) and as such spent little time studying the units (reason three) that were already found difficult and consequently, hate the teacher of agricultural extension (reason five). In a similar manner, the factor of the teacher not explaining well (reason four) might lead to students' hatred of their

teacher of agricultural extension (reason five).

This finding therefore suggests a need for the teachers of agricultural extension to appraise their method of approach with a view to matching their instructional strategies and the amount of time spent on various topics with the level of difficulty of each topic in the syllabus.

Table 3: Reasons for students' perceived difficulty in role of communication, innovation and adoption, extension administration and role of research institutes

Problem Unit	UNEL			TDNEW			IDNHET			IDNLT			IDNLU		
	F	%	R	F	%	R	F	%	R	F	%	R	F	%	R
THREE(3): ROLE OF COMMUNICATION	24	27.9	1st	14	16.3	5th	15	17.4	4th	17	19.8	2nd	16	18.6	3rd
FOUR (4): INNOVATION AND ADOPTION	26	30.2	1st	16	18.6	3rd	20	23.3	2nd	13	15.1	4th	11	12.8	5th
SEVEN (7): EXTENSION ADMINISTRATION	22	25.6	1st	10	11.6	5th	21	24.4	2nd	13	15.1	4th	20	23.3	3rd
EIGHT (8): ROLE OF RESEARCH INSTITUTES	13	15.1	4th	21	24.4	2nd	15	17.4	3rd	11	12.8	5th	26	30.2	1st
TOTAL	85	98.8		61	70.9		71	82.5		54	62.8		73	84.9	
MEAN		21.3			15.3			17.8			13.5			18.3	
RANK (R)		1st			4th			3rd			5th			2nd	

NOTATIONS:

UNEL : The unit is not easy to learn
TDNEW : The teacher does not explain well
IDNHET: I do not have enough time studying the units
IDNLT : I do not like the teacher
IDNLU : I do not like the unit.
F: Frequency
% : Percentage
R : Rank

4.3 Relationships between students' personal characteristics, Socio-Cultural Factors and Performance

The third objective of the study is to determine whether or not there are significant association or relationships between personal characteristics, certain socio-cultural factors of the respondents and performance. In order to achieve this objective, twelve empirical hypotheses were stated to be confirmed or rejected using the 0.05 level of significance for statistical decision.

Age and Performance

There is no significant difference in level of performance between young and old students.

Table 4: Relationship between age and performance.

Age of students (years)	Fail No. (%)	Pass No. (%)
20 - 27 Young students	7 (8.1)	31 (36.0)
28-35 Middle age	21 (24.4)	19 (22.1)
36 - 43 Old students	3 (3.5)	4 (5.8)
Total	31 (36.1)	55 (63.9)

$X^2 = 9.85593$, $P = 0.05$

There is evidence from Table 4 to show that there was a relationship between young age and performance. This is because 36.0% of the young students passed while only 5.8% of

the old students passed. Moreover, the chi-squared test shows that the relationship was significant at 0.05 level. Thus, we say that there is no significant difference in level of performance between young and old students. This therefore meant that age and performance are related.

Gender and Performance

There is no significant difference in level of performance between female and male students.

Table 5: Relationship between gender and performance

Sex	Fail No. (%)	Pass No.(%)
Male	19 (22.1)	35 (40.7)
Female	12 (14.0)	20 (23.2)
Total	31(36.1)	55 (63.9)

$X^2 = 0.05400$, $P = 0.05$

From Table 5 there is evidence to show that there was a relationship between the male gender and performance, about one-third (40.7%) of the male students passed while 23.2% of

the females passed. However, the relationship was not significant at 0.05 level. Thus, hypothesis two is supported. This meant that there is no relationship between gender and performance.

Marital Status and Performance

There is no significant difference in level of performance between single and married students.

Table 6: Relationship between marital status and performance

Marital status	Fail No. (%)	Pass No. (%)
Single	14 (16.3)	24 (27.9)
Married	17 (19.8)	31 (36.0)
Total	31 (36.1)	55 (63.9)

$X^2 = 0.01840$, $P = 0.05$

Table 6 shows that there is no significant relationship between being single and passing of agricultural extension examination. It can be observed that 27.9% of the single students passed while 36.0% married students passed, and the relationship was not significant at 0.05 level. Thus, hypothesis four is supported. This implied that students'

performance did not depend on marital status.

Sponsorship and Performance

There is no significant difference in level of performance between non-in-service (scholarship) and in-service students.

From Table 7 there is evidence to show that there was a relationship between scholarship training and performance. About one-third (34.9%) of the scholarship students passed while 29.1% who are in-service students passed. But the relationship was not significant at 0.05 level. This meant that passing of examination and students' sponsorship are independent. Thus hypothesis three that says there is no significant difference in level of performance between non-in-service and in-service students is supported.

Table 7: Relationship between sponsorship and Performance

Sponsor	Fail No. (%)	Pass No. (%)
Non-In-Service (Scholarship)	21 (24.4)	30 (34.9)
In-Service	10 (11.6)	25 (29.1)
Total	31 (36.1)	55 (63.9)

$X^2 = 1.41304$, $P = 0.05$

Household Size and Performance

There is no significant difference in level of performance between students with small household size and those with large household size.

Results (Table 8) showed that there was a relationship between small family size and performance,as 26.7% of the students with small family size passed their examinations while 2.3% who were students with large family size passed. Moreover, the relationship was significant at 0.05 level and 3 degrees of freedom. Thus, hypothesis five was rejected. This meant that family size and performance are interrelated.

Table 8: Relationship between family size and performance

Family size	Fail No. (%)	Pass No. (%)
No household members (0)	3 (3.5)	12 (14.0)
Small household size (1-2)	7 (8.2)	23 (26.7)
Medium household (3-4)	19 (22.1)	18 (20.9)
Large household size (5-6)	2 (2.3)	2 (2.3)
Total	31 (36.1)	55 (63.9)

$X^2 = 7.87607$, $P = 0.05$.

Respondents Level of Education and Performance

There is no significant difference in level of performance between students with low level of education and those with high level of education.

Table 9: Relationship between level of education and performance

Level of Education	Fail No. (%)	Pass No. (%)
Low (1 - 6 years)	0 (0.0)	2 (2.3)
Medium (7 -12 years)	12 (14.0)	21 (24.4)
High (13 and above years)	19 (22.1)	32 (37.2)
Total	31 (36.1)	55 (63.9)

$X^2 = 1.10884$, $P = 0.05$

Table 9 shows that there is no significant relationship between low level of education and performance. It can be seen from the table that 2.3% of the students with low level of education passed while 37.2% of those students with high level of education passed. Moreover, the relationship was not significant at 0.05 level. This implied that passing examination did not depend on the student's level of education.

Interest and Performance

There is no significant difference in level of performance between students without interest and those with interest in agricultural extension.

Table 10: Relationship between students' interest and performance

Interest	Fail No. (%)	Pass No. (%)
Non-interested	11 (12.8)	16 (18.6)
Interested	20 (23.3)	39 (45.3)
Total	31 (36.1)	55 (63.9)

$X^2 = 0.39608$, $P = 0.05$

There was no significant relationship between lack of interest and performance (Table 10). About one-fifth (18.6%) of the students without interest passed while 45.3% with interest passed. Moreover, the chi-squared shows that the relationship was not significant at 0.05 level. Thus, hypothesis number seven is supported. This meant that interest and students' performance are independent.

Level of Working Experience and Performance

There is no significant difference in level of performance between students with low level of working experience and those with high level of experience.

Table 11: Relationship between experience and performance

Interest	Fail No. (%)	Pass No. (%)
No working experience (0)	7 (8.2)	26 (30.2)
Low (1-3 years)	11 (12.8)	24 (27.9)
Medium (4-6 years)	11 (12.8)	3 (3.5)
High (7-9 years)	2 (2.3)	2 (2.3)
Total	31 (36.1)	55 (63.9)

X^2 = 14.79386, P = 0.05

Table 11 revealed that there is evidence to show that there is a relationship between low working experience and performance, 27.9% of the students with low working experience passed while 2.3% of those with high working experience passed. Moreover, the relationship was significant at 0.05 level and 3 degrees of freedom. This therefore meant that passing of examination depends on the students' level of experience. Hence, hypothesis number eight is rejected.

Respondents Level of Motivation and Performance

There is no significant difference in level of performance between low and high motivated students.

Table 12: Relationship between motivation and performance

Motivation	Fail No. (%)	Pass No. (%)
Low	4 (4.7)	4 (4.7)
Medium	20 (23.2)	20 (23.2)
High	7 (8.2)	31 (36.0)
Total	31 (36.1)	55 (63.9)

$X^2 = 9.17475$, $P = 0.05$

Table 12 shows that there is no significant relationship between low motivation and passing of agricultural extension examination. It can be observed from the table that 4.7% of those with low motivation passed while 36.0% with high motivation passed. However, the chi-squared test showed that the relationship was significant at 0.05 level. This implied that students' level of motivation and performance were interrelated.

Level of Aspiration and performance

There is no significant difference in level of performance between students with low aspiration and those with high aspiration.

Table 13: Relationship between aspiration and performance

Aspiration	Fail No. (%)	Pass No. (%)
Low	15 (17.4)	16 (18.6)
Medium	6 (7.1)	13 (15.1)
High	10 (11.6)	26 (30.2)
Total	31 (36.1)	55 (63.9)

$X^2 = 3.28010$, $P = 0.05$

Table 13 shows no significant relationship between low aspiration and performance. The table revealed that 18.6% of students who had low aspiration passed while 30.2% of students with high aspiration passed. Furthermore, the chi-square shows that the relationship is not significant at 0.05 level. This meant that students' level of aspiration and performance are independent. Thus, hypothesis number ten is supported.

Value and Performance

There is no significant difference in level of performance between low and high valued students.

Table 14: Relationship between value and performance

Value	Fail No. (%)	Pass No. (%)
Low	5 (5.8)	14 (16.3)
Medium	7 (8.2)	23 (26.7)
High	19 (22.1)	18 (20.9)
Total	31 (36.1)	55 (63.9)

$X^2 = 6.64322$, $P = 0.05$

Table 14 shows that there is no significant relationship between low value and performance as only 16.3% of the students with low value passed while 20.9% of those with high value passed. However, the relationship was significant at 0.05 level. Thus, hypothesis eleven is rejected. This meant that students' value and performance are interdependent.

Belief and Performance

There is no significant difference in level of performance between students with low and high beliefs.

Table 15 shows that there was no significant relationship between students' belief and performance at 0.05 level. Only 16.3% of those students with low belief passed while 37.1% of those with high belief passed. Thus, hypothesis number twelve

is supported. This implied that passing of agricultural extension examination did not depend on whether the student has low or high belief.

Table 15: Relationship between belief and performance

Belief	Fail No. (%)	Pass No. (%)
Low	9 (10.5%)	14 (16.3)
Medium	8 (9.3)	9 (10.5)
High	14 (16.3)	32 (37.1)
Total	31 (36.1)	55 (63.9)

$X^2 = 1.61756$, $P = 0.05$

4.4 Major Problems Faced by the Students in Learning Agricultural Extension

Table 16 shows that more than half (40.7%) of the respondents claimed that lack of suitable tools and equipment was the major problem they experienced in learning agricultural extension. About one quarter (23.3%) said lack of appropriate text books, 18.6% considered lack of enough time to participate in the course as their main problem while as much as 17.4% viewed that the problem was due to lack of suitable teacher.

The high percentage of those who claimed for the inadequate amount of tools and equipment may not be unconnected with increasing number of students admitted in the programme without matching increased upgrading or procurement of learning tools and equipment.

The study therefore suggests that these materials should be supplied in adequate amount to cater for the number of students enroled in the programme. This would go a long way in making the students understand the course much better and eventually bring about remarkable improvement in their performance.

Table 16: Problems the students experienced in learning agricultural extension

Problem	Frequency	Percentage
1. Lack of suitable tools and equipment	35	40.7
2. Lack of suitable teacher.	15	17.4
3. Lack of appropriate text books	20	23.3
4. Lack of enough time to participate in the course	16	18.6
Total	86	100.0

4.5 Reasons for Lack of Interest in Extension Work

The students were asked to state their main reason for lack of interest in becoming agricultural extension workers. About one-third (31.4%) said low pay; 24.4% claimed lack of

interest; 18.6%, loss of prestige; 15.1%, low social status occupied by the extension workers in the society; while 10.5% believed that their reluctance was due to lack of vocational guidance.

The study revealed that interest of the youth in becoming extension workers was still low. This insipid attitude could be an obstacle to agricultural growth in Kano State and the country, at large.

The study therefore suggests that extension workers should be given additional remunerations - just a little bit higher than others to really emphasise the importance of their role in agricultural development.

Table 17: Socio-economic reasons for students' lack of interest in becoming agricultural extension workers.

Socio-economic Reason	Frequency	Percentage
1. Low pay	27	31.4
2. Low social status	13	15.1
3. Loss of prestige	16	18.6
4. Lack of interest	21	24.4
5. Lack of vocational guidance	9	10.5
Total	86	100.0

CHAPTER 5

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The focus of this chapter is on the conclusions and recommendations derivable from the findings and discussions.

5.1 SUMMARY

In this study, effort was made to review Literature on the following: The meaning of agricultural extension, concept of training, teaching-learning process, history of agricultural extension in Nigeria and the background information of schools of agriculture during and post-colonial era. Furthermore, effort was made to review literature on the organisation of schools of agriculture, co-ordination of intermediate agricultural education and the historical background of tertiary education in Kano State, among others.

Structured questionnaire was used for the data collection. Data were collected from a sample of 86 students on the following variables: Age, sex, marital status, sponsor, level of formal education, interest and experience, and on the socio-cultural factors: motivation, aspiration, value and belief.

The method of analysis used involved chi-squared statistic, mean, ranking, frequency and percentages. After the analysis, discussions of the results were made and lastly,

possible recommendations and conclusions were drawn from them.

5.2 CONCLUSIONS

From the study the following conclusions could be made:

1. That 41% of the topics in ND Agricultural Extension were not well understood, particularly the four identified difficult units which have persistently presented problems to students. However, 59% of the topics were identified as easy. Thus, one can say that Agricultural Extension at ND level is relatively not a difficult course.
2. Units and topics hard to learn was the crucial factor affecting the learning of ND Agricultural Extension which depends on other reasons such as:
   a) Students being biased against agricultural extension mainly because of its difficult nature and also because there is no adequate time for the teaching and learning of the subject. Thorough teaching and learning of the course requires plenty of time and efforts; and
   b) Some students were biased against their agricultural extension teacher because the teacher does not explain well his lessons. This, in turn, affects students' understanding negatively.
3. Significant relationship was found between the age of the respondents, family size, experience, motivation, value and performance. While no significant relationship was

realized between gender, marital status, sponsorship, interest, level of formal education, aspiration and belief with the students' level of performance at 0.05 level. This therefore meant that performance is dependent upon certain personal characteristics and socio-cultural background of the individual.

4. In terms of the problems experienced by the students in learning Agricultural Extension, it was found that lack of suitable tools and equipment was the major problem they faced in learning agricultural extension.
5. Low pay was also found to be one of the main reasons for students' lack of interest in becoming agricultural extension workers in the study area.

To this end, it could be said that the training of extension staff who will encourage farmers to part from their set pattern of farming and embrace new ideas and methods rely heavily upon effective teaching of agricultural extension. Ineffective teaching methods could slow down the rate of learning of students and reduce the extent to which the objectives of a programme can be attained among other factors. The ineffective teaching may be caused by lack of suitable tools, equipment and materials. These have to be supplied if remarkable improvement in performance of students is to be made.

5.3 RECOMMENDATIONS

Following the results of this study, the following recommendations were made in order to facilitate the study of agricultural extension at National Diploma level, especially the study of the identified difficult units.

1. Education, both general and specialized, widens students' social and economic horizon and predisposes them to greater receptivity of new ideas. Therefore, if training is to have its required impact in the rural development process of this country, there is the urgent need to modify the course content of ND Agricultural Extension. The course should be broadened and made more practical and relevant to our local conditions.
2. Lecturers should give more time and instructions to the four identified difficult areas because of their significance and contribution to the improvement of farm practices which can be achieved through effective communication. Their place in the syllabus should be reviewed to see if they could be broken down to smaller and easier sub-units and re-structured or re-organised in such a way as to facilitate learning.
3. Teachers should be involved in curriculum development for agricultural extension since the success of any curriculum depends to a large extent on the teachers' abilities to implement such curriculum. The teachers know their students and where their problem lies. Thus,

they (teachers) would be able to offer useful suggestions on how the difficult units in agricultural extension could be simplified.

4. Teachers' qualification and experience are important factors in the teaching of agricultural extension. These factors help them to determine the principles and methods to use to impart knowledge to students. Therefore, the management should employ specialist in agricultural extension who can handle those topics well.
5. There is need to replicate this survey in other Schools of Agriculture in the country so that results can be compared more meaningfully. This would go a long way in enhancing the quality of Extension workers training and productivity in Nigeria.
6. Extension workers should be given additional remuneration - just a little bit higher than others to really emphasise the importance of their role in agricultural development.
7. *Guidance service, especially vocational guidance centres* on the idea that students should be aided to choose, prepare, enter, and make progress in their occupations. The findings of this work therefore recommend that guidance and counselling units be established in Schools of Agriculture to guide the students on how to have open mind in learning all aspects of agricultural extension to overall education of the students.

8. Lastly, government should endeavour to provide adequate amount of the necessary tools, equipment and materials needed for effective teaching and learning of the course, and match these with increase in admission over time.

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APPENDIX I

AGRICULTURAL EXTENSION EXAMINATION
RESULT, 1997/98 SESSION

S/NO	REGISTRATION NUMBER	MARKS (%)	GRADE
1	89/1028	70	B
2	91/1274	32	F
3	92/1331	52	C
4	1406	50	C
5	1414	51	C
6	1433	55	C
7	1435	57	C
8	1362	50	C
9	93/1464	52	C
10	1468	52	C
11	1469	52	C
12	1471	64	B
13	1472	48	D
14	1473	52	C
15	1477	41	D
16	1478	70	B
17	1480	47	D
18	1481	53	C
19	1483	46	D
20	1486	49	D
21	1488	60	B
22	1489	43	D
23	1490	42	D
24	1491	48	D
25	1492	65	B
26	1494	58	C
27	1495	54	C
28	1496	50	C
29	1497	62	B
30	1499	39	F
31	1500	58	C
32	1501	48	D
33	1502	55	C
34	1504	46	D
35	1507	51	C
36	1518	38	F
37	1519	54	C
38	1528	43	D
39	1534	54	C

APPENDIX I Cont.

S/NO	REGISTRATION NUMBER	MARKS (%)	GRADE
40	1537	75	A
41	1582	56	C
42	94/1703	60	B
43	91/1197	60	B
44	92/1370	41	D
45	1399	50	C
46	1405	50	C
47	1447	50	C
48	1453	59	C
49	93/1459	47	D
50	1462	57	C
51	1463	51	C
52	1465	48	D
53	1466	45	D
54	1470	57	C
55	1475	50	C
56	1493	43	D
57	1498	64	B
58	1506	56	C
59	1508	38	F
60	1509	58	C
61	1511	41	D
62	1512	47	D
63	1515	53	C
64	1516	50	C
65	1517	42	D
66	1531	56	C
67	1542	58	C
68	1577	54	C
69	1583	60	B
70	1584	59	C
71	94/1646	51	C
72	91/1266	50	C
73	93/1520	55	C
74	93/1521	41	D
75	93/1525	62	B
76	93/1526	42	D
77	93/1527	47	D
78	93/1529	60	B
79	93/1536	43	D
80	93/1538	51	C
81	93/1539	45	D
82	93/1540	50	C
83	93/1541	43	D
84	93/1578	48	D
85	93/1589	42	D
86	94/1630	50	C

APPENDIX II

DEPARTMENT OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY
FACULTY OF AGRICULTURE
AHMADU BELLO UNIVERSITY
ZARIA

QUESTIONNAIRE ON THE EFFECTIVENESS OF TEACHING AGRICULTURAL EXTENSION AT TERTIARY LEVEL OF OF EDUCATION IN KANO STATE, NIGERIA

Instruction: Please, tick or fill where appropriate.

(A) General Information:

(1) Date of Interview .....Questionnaire number ....

(2) Name of respondent .....

(3) Class ..... Age .....

(4) Sex: (a) Male ( ) (b) Female ( )

(5) Sponsor: (a) Scholarship ( ) (b) private ( )
(c) In-service training ( )

(6) Marital Status:
(a) Married ( ) (b) Single ( )

(7) If married, what is the size of your household?
(a) Males ( ) (b) Females ( )
(c) Wife(ves) ( )

(8) How many years of formal education have you completed?
.....

(9) (a) Are you a civil servant? (a) Yes ( )
(b) No ( )
(b) If yes, where are you working? .....
(c) When did you start working? .....
(d) State your working experience .....

(B) Please indicate with an "X" the level of difficulty you experience against each unit during the teaching.

UNIT AREA	CONTENT AREA	VERY EASY (VE)	EASY (ES)	DIFFICULT (DF)	VERY DIFFICULT (VD)
ONE	SCOPE AND PRINCIPLES OF AGRICULTURAL EXTENSION (1) Definition of Agric. extension.				
(2)	History of Agric. Extension in the world and Nigeria.				
(3)	Objective of extension.				
(4)	Various components of Agric. extension				
(5)	Adult Learning conditions.				
(6)	Principles of Agric. extension.				
TWO	EXTENSION TEACHING METHOD				
(7)	Individual contact method.				
(8)	Group contact method				
(9)	Mass media method.				
THREE	ROLE OF COMMUNICATION				
(10)	Communication.				
(11)	Different elements in communication.				
(12)	Role and characteristics of each of the elements above.				
FOUR	INNOVATION AND ADOPTION.				
(13)	Innovation.				

UNIT AREA	CONTENT AREA	VERY EASY (VE)	EASY (ES)	DIFFICULT (DF)	VERY DIFFICULT (VD)
SEVEN	EXTENSION ADMINISTRATION				
(26)	Role of subject matter specialist				
(27)	Role of Inter-mediate exten-sion staff.				
(28)	Role of village level extension agent (VEA).				
(29)	Training and visit system (T&V).				
EIGHT	ROLE OF RESEARCH INSTITUTES				
(30)	Production of Agric. Techno-logies.				
(31)	Identification of farmers problems.				
(32)	Transmission of research findings to farmers.				

(C) For each problem unit, there are possible reasons that could explain *why student find them difficult. Mark 'D' against any unit you find* difficult and then, mark 'X' against any option to show why you find it difficult.

UNIT	TITLE	REASONS FOR PERCEIVED DIFFICULTY					
		Difficult easy (D)	The unit is not easy to learn. (UNEL)	The teacher does not explain well. (TDNEW)	I do not have enough time studying the unit (IDNET)	I do not like the teacher (IDNLT)	I do not like the unit (IDNLU)
ONE	Scope and principles Agric. extension.						
TWO	Role of communication extension						
THREE	Extension teaching methods						
FOUR	Innovation and Adoption						
FIVE	Audio-Visual aids.						
SIX	Role of local leaders						
SEVEN	Extension Administration						
EIGHT	Role of RESEARCH Institutes.						

(D) Social and cultural factors:

(1) Agricultural extension is interesting and enjoyable

(a) Yes ( ) (b) No ( )

(2) Has his course increased your interest to become an agricultural extension worker after graduation?

(a) Yes ( ) (b) No ( )

(3) To what extent do you regard this course as being useful to you?

(a) Very useful ( ) (b) Useful ( )

(c) Useless ( ) (d) Very useless ( )

(4) What motivate/encourage you to study this course?

(a) My interest ( ) (b) My organisation ( )

(c) My parents/friends and relatives ( )

(5) How would you describe the attitude of the staff toward this course?

(a) Very favourable ( ) (b) Favourable

(c) Unfavourable ( ) (d) Very unfavourable

(6) How would you rate the teaching ability of your teacher?

(a) Very poor ( ) (b) poor ( )

(c) Fair ( ) (d) Good ( )

(e) Excellent ( )

(7) Suppose you have completed your studies and you have obtained your diploma. What type of occupation would you like to do?

.....

.....

(8) (i) Would you like to become an extension worker after your studies?

(a) Yes ( ) (b) No ( )

(ii) If yes, why? .....

(iii) If no, state your reasons .....

.....

(9) (i) Would you like to work in rural areas?

(a) Yes ( ) (b) No ( )

(ii) If yes/no, what are your reasons? .....

.....

(10) (1) Please use the following three-point scale to express your opinion. Do you agree that extension work is for rural people?

(a) Agree ( ) (b) Disagree ( ) (c) Undecided ( )

(ii) If you agree/disagree, give your reasons:

.....

(iii) If you have a different opinion, stated your own view .....

(11) Please write the name of your home town and its Local Government:

.....

(E) Problems

(1) I have the opportunity to participate regularly during agricultural extension lesson.

(a) Yes ( ) (b) No ( )

(2) The Agricultural extension Lecturer understands the subject quite well

(a) Yes ( ) (b) No ( )

(3) Lack of adequate teaching aids hinder the teaching of agricultural extension.

(a) Yes ( ) (b) No ( )

(4) The text books for agricultural extension are appropriate.

(a) Yes ( ) (b) Nc ( )

(5) Do you face any problem while learning agricultural extension?

(a) Yes ( ) (b) No ( )

(6) If (5) above is yes, what is/are some of these problem(s) you have faced?

.....

(7) What do you think are the causes of the problem(s) you stated above?

(8) How do you think the problem(s) you stated above could be solved?

.....

(9) Other comments: .....

.....