CHAPTER ONE
INTRODUCTION

Background to the study

Curriculum is the sum total of all the school activities within and outside the classroom setting which contributes to the learning experiences a learner is exposed to in order to achieve the learning outcomes or attain the goals of any educational Institution. It is the means and resources learners will interact with in order to achieve identified educational outcomes. Moronkola, Akinsola and Abe (2000) viewed curriculum as the reconstruction of knowledge and experience, which is a reflection of what people think, feel, believe or do, systematically developed with the guidance of the school or relevant agencies which enable the learner to have better mastery of learning experiences for the learner's and the society's well being. A curriculum is a runway or blueprint of any educational system and is usually designed to meet the needs of the society.

Curriculum evaluation is an essential and imperative feature of any national system of education as it provides the basis for processes of curriculum implementation, policy making and feedback on continuous curriculum adjustments. Evaluation generally is a major activity in education which applies to the process of making a value judgment which eventually aid in providing quality control. Educational evaluation refers to issues related to curricula, programmes, interventions, teaching methods, learning achievements of students and organisational factors such that the revision of the official curriculum is possible if necessary or review of classroom teaching and learning processes. Curriculum evaluation is a necessity and therefore inevitable due the dynamic nature of the society. The process of review or evaluation is to ensure the eventual curriculum is not out of tune with societal realities. (Alade, 2011).

Health is a concept which does not merely relate to the absence of disease, healthy working of organs, or having good thoughts. It is a holistic concept. Various scholars have different perception of what health is depending on what angle it is being viewed. While Onwuama (2017) perceived health as that quality, state or condition of a person that enables him or her to live well, serve best and carry out daily activities optimally. Oladipupo (2017) also viewed health as the level of functional and metabolic efficiency of a living organism which in humans is the

ability of individuals or communities to adapt and self-manage when faced with physical, mental or social changes. Furthermore, Moronkola (2016a) viewed health as the ability and capability of an individual to cope with all daily demands and effectively function physically, mentally socially, emotionally, spiritually and in line with the individual's genetic make-up; the individual is able to live a life that is socially and economically acceptable to self and others at a particular period and within the context of one's environment and genetic make-up.

The World Health Organization (WHO, 1948) defined health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. Although, this definition has been subject to controversy, in particular as having a lack of operational value and the problem created by use of the word "complete", it remains the most enduring. To be healthy connotes total and harmonious functioning of an individual with proper coordination between him/her and all factors that promote health in the environment. The state of health of an individual is usually a reflection of prevailing health standard within the community (Ezine, 2009).

Community health is simply the state of well being of people living in a given geographical location as seen from their standard of living and is concerned with the health of individuals, families and communities. Community health profile is determined in terms of the level of people's health and health related activities, living standard of the community, the existing health facilities, quality of health personnel and other extraneous factors. It attempts to identify the root causes of diseases and health problems not only from an individual point of view, but also from family, the community and environmental perspectives (Moronkola and Okanlawon, 2003). Primary Health Care (PHC) was identified as the key to attaining health for all target at the grassroot.

The adoption of the Primary Health Care delivery services in Nigeria following the Alma-Ata declaration of 1978, made it more apparent for the identification and training of a category of health workers who would be willing to work at the rural and community levels. Part of the national health policy stipulates the evolvement of appropriate policy on manpower development in order to secure a more equitable distribution of health personnel throughout the country which led to the training of different categories of health workers to provide health services at the

rural community. These groups of health workers were formerly referred to as community aides, community assistants, community supervisors and junior community health extension workers. Later in 1987, the nomenclature community health extension worker was used to comprise the community aides, community assistants and community supervisors. The community health workers are trained to provide basic promotive, preventive, curative and rehabilitative health services to individuals, families, and community members at the grassroots.

The Junior Community Health Extension Workers (JCHEW) and Community Health Extension Workers (CHEW) cadres of community health workers are trained in the Colleges of Health Technology. As part of the Nigeria's Basic Health Services Scheme, the Colleges of Health Technology (CoHTs) were established in the late 1970s with the aim of training a cadre of Primary Health Care (PHC) workers to staff the basic health units then being constructed as a result of the Government's commitment to strengthening its national health system to enable it provide effective, well-organised, quality, accessible and affordable health services that will improve the health status of Nigerians through the achievements of the health related millennium Development Goals (MDGs). Primary Health Care is the keystone of the National Health Policy of Nigeria.

Colleges of Health Technology (CoHT) focus on health oriented programmes where trainees receive quality health training to prepare them to function as grassroot health care providers. The CoHT provides opportunity for the training of a variety of public health workers including; Public Health Nurses (PHN) CHEW, JCHEW, Environmental Health Officers (EHO), and Medical Technicians e.g. Pharmacy Technicians, Dental Surgeon Assistants (DSA) Laboratory Technicians, etc and Medical Record clerks.

 CHEW training is aimed at developing basic important skills in the graduates to perform their duties and responsibilities at the grassroot. The objectives of CHEW training include acquisition of basic community health knowledge, basic practical skills acquisition, and training/supervisory skills, which enable the trained person to provide PHC services which has been recognised as the solution to achieving "health for all target" at the community level. The function of the CHEW involves the use of standing orders which are detailed guiding principles organised according to symptoms, and define how patients with different conditions should be cared for. The aim for the use of the standing order include: provision of legal support for health

workers when appropriately used, provision of methodical and uniformed framework for history taking and physical assessment as well as high and uniform standard of health care provision (Federal Ministry of Health, 2006).

The basic tool for achieving PHC components which cuts across achieving community health workers functions is health education. Health education according to Moronkola (2017b) is a distinct field of study basically drawing its content areas from medical, social, environmental sciences; the arts and education to create personal and or group voluntary awareness about health, health maintenance and promotion and ensures health care is accessed on time, in order to prevent diseases and disability. It is laden with strategies to empower people with evidence based health knowledge that will stimulate health attitude and skills to make life worthwhile. It involves passing of health-related information to individuals, families and communities on what to do to be healthy and keep away from diseases. It involves teaching positive health practices which are aimed at promoting health of mind and body, promoting the use of preventive health services to enable people change their behaviour and attitudes in order to take on healthier lifestyle choices, presenting health teaching in an attractive and acceptable way; assisting individuals and communities to be accountable for their own health as well as encouraging people to embrace therapeutic services when necessary.

According to Abdulraheem, Oladipo and Amodu (2011), Nigerian citizens have a basic right to quality health care; however the community health training and community health programme were implemented with little professional interest, leading to a gap in knowledge of rural health workers in responding satisfactorily to identified problems therefore making it difficult to render quality health. They further identified that some rural health workers were unqualified and the qualified ones lack the modern concept of PHC practice. As such adequate training is essential for community health workers to effectively carry out their work. Training not only include learning how to provide preventive, curative or other relevant services to the community but also incorporate learning how to teach and communicate with both the community and learners.

Training contents should balance community perceived and epidemiologically determined needs. The quality of any educational system is to a great degree

dependent on the relevance and adequacy of its objectives and contents of the school curricula (Akuezuilo, 2006). Inappropriate training can lead to major disincentive to both the community and individuals. Appropriate training should address how material is taught to the community health worker, how and where it is carried out and other relevant skills which will strengthen their capabilities to translate information to the community. Many training programmes for community health workers are inadequate. The methods tend to be "too theoretical", "too classroom-based".

According to Labiran, Mafe, Onajole and Lambo, (2008), Community health training programme face similar difficulties to those of other pre-service programme like lack of suitable teaching materials, largely irrelevant curricula, courses that are too long or too short, unsuitable training environment and badly chosen or wrongly used methods of training. Unfortunately, the curricula of most medical and health sciences schools are still over burdened with the pursuit of knowledge that is irrelevant to the priority tasks that must be performed to meet the community health needs and only a few medical, nursing, and health sciences schools have developed explicit objectives for their training programme. Also Moronkola (2017a), observed that school environment in most primary to tertially institutions especially the public ones is getting worse with situations where there are no chairs, tables, windows, doors, toilet facilities where "shot put" is the method utilised by staff and learners, overcrowded classrooms due to insufficient classrooms, ill-equipped laboratories, lack of simple first aid boxes, unkempt school compounds, schools without gates, or less security,

In Ethiopia it was discovered that the health extension curricula was not evaluated or revised since it was developed and when it was eventually evaluated, all the community health training institutions studied were found to lack adequate facilities including classrooms, libraries, information communication technology (ICT), demonstration room. The curriculum prescribed 70% practical but teaching learning process was more of theory based (Kitaw, Ye-Ebiyo, Said, Desta and Teklehaimor, 2007; Damtew, Moges and Kaaseboll, 2011)

According to Moronkola (2002) evaluation should ensure the appropriateness or success of training by finding out whether the stated objectives are met as well as those factors responsible for success or otherwise of the programme. Evaluation assists in proper measuring of outcomes to gather information in order to assist in decision-

making and to obtain adequate and relevant information regarding the possible effect education/training programmes as well as assess the value of the education/training to the final consumers of such activity and degree to which the intended objectives have been achieved. A good evaluation process could be employed to curb an educational problem. To know whether a curriculum carries out and achieves all the variables that are mentioned in this definition, a thorough evaluation of it is imperative.

Evaluation identifies the take off points, the present, the future as well as how to get to the future of any programme. Without evaluation, life itself will not progress. The CHEW curriculum in use was reviewed in 2006 to meet the needs of the learner and society. A curriculum, however beautifully planned it maybe, will be of no relevance if it is not implemented or well implemented. A duly implemented curriculum determines how well educational objectives are achieved. There is no gain saying that the fact that effective implementation is very vital to achieving the educational goals of the community health curriculum. The contents of the curriculum can only be taught effectively if the curriculum resources (manpower and materials) are adequately provided in the schools. Curriculum implementation translates theory into practice or proposal to activity. Onyeachu (2008) asserted that curriculum implementation or execution is the process through the combined efforts of stakeholders in education like teachers, learners, school administrators and parents as well as the interaction with the physical facilities, instructional materials, psychological and social environment put into practice what has been planned in the curriculum process in the classroom.

There are several variables that account for reasons students may differ in their academic performance in various subjects and courses at all levels of education. Gender, educational qualification, age are among the factors that could affect a training objectives (Shosanya, 1995; Akinsolu, 2010). The following input variables impinge students' learning: teacher's variables (qualification, previous experience, motivation, gender, perception of professional role and responsibility, teaching methods and interest/ attitude) learner variables (study attitude/ habit, interests, gender, developing capabilities/abilities, age, socio-economic status), task/subject matter variables (how interesting; difficulty and dimension of organisation) environmental variables (sociological and economic factors like equipments, materials, societal needs and admission policy). Also lack of textbooks, deficiency in teaching, information processing, characteristics of students (e.g learning strategies

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and study habits), students' perception of the programme and sex have been found to impinge on good academic performance. The attitude brought into any programme is very important. Positive attitude is a major factor in the accomplishment of a programme. However the reverse is the case in a negative attitude (Balogun, 1997; Oladejo, Olosunde, Ojebisi and Ishola 2011; Duze, 2012)

Ogundele (2002) noted that teaching methods are important ingredients that make teaching effective and have to be handled in such ways that would bring about the desired change in learners' behavior through exposure to different methods which will also promote conducive classroom climate as antecedents of success in the teaching-learning process. Adegbile (2011) believed that the teaching/learning process is the curriculum in action because it is through it that the success or failure of any curriculum can be determined, this process can be divided into preparation, execution and assessment. As such a teacher has to plan the contents adequately together with objectives, execute his plans adequately as well as assess the students in order to establish the degree to which the formulated objectives have been realized before teaching and learning can be said to have taken place. According to Rajid (2014) the Commission on Colleges of the Southern Association of Colleges and Schools measures for evaluating academic programmes include: evaluation of instructional delivery, adequacy of facilities and equipment, standardised tests, results of admission tests for the prospective student, job placement, results of examinations, evaluation techniques.

A curriculum should not be changed without knowing the extent to which the previous one has achieved the educational objectives for which it was designed. It is recommended that before a new curriculum is introduced, in place of the old one, there should be some activities aimed at preparing the ground for the large scale implementation. Such activities should include evaluation at each level of its development as obtains in advanced countries like America and Europe but lacking here in Nigeria. In most cases, policy makers have been concerned with the enlargement of curriculum content not necessarily finding out the faults of the former. Nigeria is one nation that is very high and rich in policies but very low and deficient in implementation (Odukoya 2009; Araromi 2012; William & Johnson 2013).

According to Ayodele, Araromi, Emeke and Adegbile (2006) there is no policy that is taken on the face value as performing or not performing until it is evaluated. Developing a curriculum is not the end of the educational exercise; rather

curriculum must be seen to be achieving its desired objectives. This can only be done when curriculum undergoes a continuous process of evaluation If the curriculum is the tool to achieve both educational aims and societal needs it is important for educational curriculum to be evaluated periodically to ensure it is in line with the aims of the institution and societal needs.

The community health curriculum in Nigeria is a comprehensive guide for all government and privately owned Colleges of Health Technology training community health workers to provide health care to where people work and live at the grassroots. The existing curriculum for community health workers was reviewed last in 2006 in the light of the new roles that the members of this health team have to play in implementing integrated PHC services and current societal health needs. Moronkola, Akinsola and Abe (2000) recommended that a curriculum used for the purpose of improving education and the process of carrying out teaching and learning activities in schools should be evaluated at five years interval to enable it meet the needed changes in the society

Furthermore, there are various documented studies on evaluation of curricula for primary, secondary and universities institutions but close to none in Colleges of Health Technology and its community health curriculum. This study therefore evaluated the Community Health Curriculum in Colleges of Health Technology in Southwestern Nigeria using the context, input, process and product CIPP evaluation model. The evaluation of any programme entails that at least a model should be employed as a guide to its proper and appropriate evaluation. According to Adegbile (2009), a curriculum evaluation model is a guide that provides a basis for designing evaluation activities by providing the evaluator an opportunity to have a kind of conceptualization that guides the focus of the evaluators and the orientation of the evaluation.

The Context, Input, Process and Product (CIPP) model was adopted for this study Adegbile (2009) observed that it is the most robust, most widely used, well known and very comprehensive of the entire curriculum evaluation models providing a holistic approach to evaluation In this study the researcher translated the CIPP thus: Context evaluation was on the relevance and adequacy of the community health curriculum objectives and contents as perceived by students and teachers, adequacy of

learning and teaching environment; Input evaluation concerned itself with the available resources, students attitude to learning, teachers' attitude to teaching, students' gender and profile of teachers for the curriculum implementation of community health; Process evaluation was about the teaching methodology, assessment techniques and hindering factors to the community health curriculum; Product evaluation centred on the evaluation of students' competence in basic community health knowledge and practical skills.

Statement of the Problem

Community health education is an educational exercise designed to provide specialist skills, knowledge, attitudes and habits necessary for securing gainful employment in community health programmes at the grassroots. The quality of any educational system is to a great degree dependent on the relevance and adequacy of its objectives and contents of the school curricula as inappropriate training can lead to major disincentive to both the community and individual (Akuezuilo and Akudolu, 2006). There is continuous change in knowledge and so practitioners in all human endeavours must be kept abreast of challenges in their working environment. Health workers need to be adequately trained to cope effectively with the great challenges in the field of health as new diseases are discovered causative organisms of old ones become resistant to existing drugs, treatment methods changes, counselling and educational approaches also change.

There is the need for health workers to have adequate knowledge of recent development in the field of health so as to ensure quality service delivery to their clients. According to Akinsola (2006) health workers must be individuals equipped with the appropriate skills, knowledge and attitude to enable them take on a large measure of responsibility for the promotion and maintenance of their health and for the prevention and management of common minor ailments through community health services.

The current community health curriculum was reviewed in 2006 to meet the needs of the learners and society. It has not been evaluated since this revision. Moronkola, Akinsola and Abe (2000) recommended that a curriculum used for the purpose of improving education and the process of carrying out teaching and learning activities in schools should be evaluated at five years interval to enable it meet the

needed changes in the society. The former Registrar of the Community Health Practitioners Registration Board of Nigeria in 2012 challenged all Heads of Community Health Department in Colleges of Health Technology nationwide to make suggestions towards the improvement of the current curriculum.

Meaningful contributions cannot be made for curriculum improvement without the support of an empirical study. There is no policy that is taken on the face value as performing or not performing until it is evaluated. Developing a curriculum is not the end of the educational exercise; rather curriculum must be seen to be achieving its desired objectives. This can only be done when curriculum undergoes a continuous process of evaluation. There are various documented studies on evaluation of curricula for primary, secondary and universities and mainly as mainstream academic institutions to the neglect of Colleges of Health Technology in general and community health curriculum has received negligible attention.

This study therefore evaluated the community health curriculum in Colleges of Health Technology, Southwestern, Nigeria where the curriculum were being used in order to ensure the future of the programme.

General Objective:

This study evaluated the community health curriculum in Colleges of Health Technology in Southwestern Nigeria using the CIPP model of curriculum evaluation.

Specific Objectives:

The following specific objectives were accomplished:

1. Examination of the adequacy of the teaching and learning environment for the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria?

2. Analysis of the perception of stakeholders' (teachers and students) on relevance and adequacy of (a) objectives, (b) contents and (c) assessment techniques of the Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria.

3. Ascertaining the students' attitude towards learning and teachers' attitude to teaching Community Health curriculum in Colleges of Health Technology in Southwestern, Nigeria.

4. Analysis of the profile of teachers in Colleges of Health Technology Southwestern, Nigeria.

5. Documentation of the sufficiency of resources for teaching community health in Colleges of Health   Technology, Southwestern Nigeria.

6. Analysis of the teaching methods predominantly used by teachers and its appropriateness in the teaching of the contents in the Community Health curriculum in Colleges of Health Technology in Southwestern, Nigeria.

7. Examination of the adequacy of time allotted to teaching of Community Health Curriculum contents in Colleges of Health Technology in Southwestern, Nigeria.

8. Identification of factors that may hinder the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria.

9. Ascertaining the students' competence in basic community health knowledge and practical skills in Colleges of Health Technology in Southwestern, Nigeria.

Research Questions:

The study provided answers to the following questions:

1. Is the teaching and learning environment adequate for the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria?

2. Are the contents of the Community Health Curriculum used in Colleges of Health Technology in Southwestern, Nigeria adequate and relevant?

3. Are the objectives of the Community Health Curriculum used in Colleges of Health Technology in Southwestern, Nigeria adequate and relevant?

4. What is the attitude of students towards learning in Colleges of Health Technology in Southwestern, Nigeria?

5. What is the attitude of teachers towards teaching in Colleges of Health Technology in Southwestern, Nigeria?

6. What is the profile of teachers teaching in Colleges of health Technology in Southwestern, Nigeria?

7. Are the instructional materials, assessment techniques and teaching methods as perceived by the teachers appropriate for the teaching of community health curriculum in Colleges of Health Technology in Southwestern, Nigeria?

8. Are the instructional materials, evaluation and teaching methods as perceived by students appropriate for the implementation of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria?

9. Is the time allotted to teaching of Community Health Curriculum content in Colleges of Health Technology in Southwestern, Nigeria adequate?

10. What are the challenges encountered by the teachers in the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria?

11. What are the students' competence in basic community health knowledge and basic practical skills in Colleges of Health Technology in Southwestern, Nigeria?

Hypotheses:

This study tested the following null hypotheses:

Ho_1: There will be no significant difference in students' competence in basic community health knowledge and practical skills in all Colleges of Health Technology in Southwestern, Nigeria.

Ho_2: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on students' gender in all Colleges of Health Technology in Southwestern, Nigeria.

Ho_3: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on teachers' academic qualifications in all Colleges of Health Technology in Southwestern, Nigeria.

Ho_4: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on teachers' age in Colleges of Health Technology in Southwestern, Nigeria.

Ho_5: There will be no significant difference in students' competence in basic community health knowledge and Practical skills based on teachers' years of teaching experience in Colleges of Health Technology in Southwestern, Nigeria.

Ho_6: There will be no significant difference in the perception of the relevance and adequacy of curriculum objectives of 200 and 300 level students of all Colleges of Health Technology in Southwestern, Nigeria.

Ho$_7$:   There will be no significant difference in the perception of the relevance and adequacy of curriculum contents of 200 and 300 level students of all Colleges of Health Technology in Southwestern, Nigeria.

Delimitation of the Study

 The study was delimited to the following:

1) Descriptive survey research design.

2) Community Health Department in Public Colleges of Health Technology in South-West Nigeria.

3) National Curriculum for training of Community Health Extension Workers

4) Standard requirements by the Community Health Practitioners Registration Board of Nigeria for establishment of Community Health Courses in Colleges of Health Technology in South-West Nigeria.

5) Context, Input, Process, Product (CIPP) model of evaluation.

6) Principals, teachers and students in public Colleges of Health Technology South-West Nigeria as respondents.

7) Total enumeration (census) technique and purposive sampling technique

8) The use of self-structured validated and reliable questionnaire, practical procedure checklist and a focus group discussion guide as instruments for data collection.

9) The independent variables of adequacy of teaching/learning environment, relevance and adequacy of (a) objectives, (b) contents, (c) evaluation technique of community health curriculum, students' attitude to learning and teachers' attitude to teaching, instructional materials, teaching methods, teachers profile, students gender and hindering factors.

10) The dependent variables of students' competence in basic community health knowledge, and practical skills.

11) Descriptive statistics of frequency count, percentages, mean, standard deviation, bar charts, pie charts and inferential statistics of multivariate analysis of variance (MANOVA), and independent t- test.

12) Ten (10) trained, research assistants.

Limitation of the Study

        One of the major limitations of this study was that the first year community health students had to be excluded during the study because as at the time of the study they had not been adequately exposed to the curriculum and school facilities to make

a meaningful input. Teachers and students absent from school during the period of the study were also excluded.

Secondly, the review of related literature was limited due to the dearth of relevant literature on studies on some of the variables of the research works especially in relation to community health curriculum. There may be reservations on the part of the school authorities and tutors knowing that they were being evaluated. Practical procedure's rater's bias may also be a limitation.

Significance of the Study

This study revealed the inadequacy of resources needed for meaningful teaching-learning process which will also affect learning outcomes in community health curriculum. The findings revealed how well the community health programme are being implemented. The results of this study assisted in ascertaining the achievement of learning goals and academic standards in community health training institutions. Also, the findings revealed and proffered solutions to solving obstacles militating against realizing the objectives for which the community health curriculum was put in place. The finding provided insight based on empirical studies on how to improve upon the community health curriculum. Also the findings have contributed immensely to the existing literature on curriculum implementation to guide the government, governing board, teachers and other stakeholders in community health education and also serve as necessary inputs for future curriculum revision exercise to the curriculum planning body.

The findings also revealed the strengths and weaknesses of the curriculum therefore, serving as a means of quality assurance. Since this is the first time in nine years this curriculum will be evaluated, the study provided information on the effectiveness of or otherwise of the current curriculum, the need for a revision or not and also provided baseline data for future evaluation having provided a documented empirical study on evaluation of the curriculum.

Operational Definition of Terms
The following terms are defined as used in the study:
Attitude: The disposition (feelings) of teachers towards teaching and learners towards learning of community health courses.

Community Health Curriculum: A planned programme of learning designed for trainees in Colleges of Health Technology in Nigeria for the award of diploma in community health that will enable them function as Community Health Extension Workers.

Community Health Students: Students undergoing training in Colleges of Health Technology to function as Community Health Extension Workers, purposely trained to provide health services in Primary Health Care system at the grassroots/the community level where people have limited access to effective health care services.

Principal: The head of the Community Health Department in Colleges of Health Technology Southwestern, Nigeria.

Colleges of Health Technology: A collective name for both public Colleges of Health Technology and Schools of Hygiene that train manpower for Primary Health Care services.

Teachers / Community Health Tutors: Trained Primary Health Care Tutors, licensed to train community health students in Colleges of Health Technology and Schools of Hygiene.

Teachers' Profile: Teachers' qualifications, age, gender, teaching experience and number of courses taught in Colleges of Health Technology in Southwestern Nigeria.

Stakeholders: All those involved with or affected by the implementation of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria.

Implementation Evaluation: Using the context, input, process and product model of evaluation to examine the Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria.

Mandatory Instructional Materials/Facilities: Instructional materials and facilities required for training of Community Health Extension Workers in Colleges of Health Technology in Southwestern, Nigeria.

Product evaluation: Outcome of exercise that determine the final year students' competence in basic community health knowledge and practical skills which the community health extension workers need to function effectively at grass root level.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter discussed the review of related literature under the following sub-headings:

1. Conceptual framework of the study
2. Theoretical framework of the study (Precede-Proceed and Social System Theory)
3. **Theoretical review of health and community health training**
a. The concept of health
b. The concept of community health
c. Brief history of community health training
d. Standard requirement by the Community Health Practitioners Registration Board of Nigeria for establishment of Community Health Courses in Colleges of Health Technology in South-West Nigeria
e. Eligibility for training a Community Health Extension Worker in Colleges of Health Technology
f. Professional qualities and characteristics of a Community Health Extension Worker training in Colleges of Health Technology
g. Personal qualities of a Community Health Extension Worker training in Colleges of Health Technology
h. Functions of a Community Health Extension Worker based on basic community health knowledge, and basic practical skills acquired during training.
4. **Theoretical review of Curriculum and Evaluation**
a. The concept of curriculum
b. Curriculum theories used in the study
c. Curriculum development
d. Curriculum implementation
e. Purposes of curriculum implementation
f. Factors that influence curriculum implementation
g. Challenges in implementing curriculum in Nigerian tertiary institutions
h. The community health curriculum used in Colleges of Health Technology
i. The concept of evaluation in education
j. Types of evaluation
k. Curriculum evaluation models and evaluation of curriculum implementation
l. The Context Input Process Product curriculum evaluation model

Empirical Review

5. Factors (variables) affecting learning outcomes in educational institutions

a. Effect of attitude on learning outcome of students in community health training

b. Instructional materials on learning outcome of students in community health training

c. Teaching methods and learning outcome of students in community health training

d. The teaching/learning processes and learning outcome of students in community health training

e. Teaching and learning environment and effects on students and teachers in community health training

f. Effects of gender on students' academic performance in community health training

g. Time allotment and students' academic performance in community health training

h. Years of experience and students' academic   performance in community health training

i. Teachers age and students' academic performance in community health training

6. Appraisal of reviewed literature

CONCEPTUAL FRAMEWORK OF THE STUDY

Independent variables   Dependent variables

Context Evaluation of the Community Health Curriculum.

C

- Adequacy and relevance of curriculum objectives

- Adequacy and relevance of curriculum contents

- Teaching/learning environment

Product Evaluation of the curriculum (students' competence in:

P

- Basic community health knowledge
- Basic practical skills

I

Input Evaluation of the curriculum

- Resources (teaching/ learning materials)
- Teachers' attitude to teaching
- Students' attitude to learning
- Profile of teachers

Process Evaluation of the community Health curriculum

- Teaching methods
- Assessment techniques
- Hindering factors

Figure1: The conceptual framework for the evaluation of the Community Health Curriculum. Source: Self developed.

The conceptual framework of this study was adopted from the CIPP model of evaluation which provided a guideline and framework for the evaluation of the Community Health Curriculum. The CIPP model of evaluation founded by Guba and Stufflebeam in 1971 is an acronym for context, input, process and product evaluations which are different forms of evaluation. The context, input, process and product evaluations were used in evaluating different but interrelated parts of the Community Health curriculum which were necessary for students' achievement of curriculum goals and objectives and their development of necessary knowledge and practical

skills to function as community health workers in the community and society at large. The adaptation of the CIPP model of evaluation for this study showed the association and the interface that exists among the four components of the model-context, input, process, and product which are basic components of a curriculum.

Curriculum evaluation which is directed at evaluating the curriculum based on its objectives, contents, learning activities, assessment techniques and stakeholder's view curriculum on whether the curriculum is adequate or relevant is a good sign of curriculum status (Okeke and Inoniesia 1996). Figure 1 show, the CIPP model in its adapted form as a flow model consisting of four quadrants of activities starting with Context, proceeding through to Input to Process and finally Product.

In this study the researcher examined the adequacy of the environment for learning and teaching and the perception of the principals, teachers as well as students on the community health curriculum objectives and contents in terms of its relevance and adequacy to the needs of the community and society at large. This is the context evaluation. For the input evaluation, the researcher examined the instructional materials in terms of sufficiency, the attitude of the teachers to teaching, the attitude of students to learning, students' gender and the profile of teachers in Colleges of Health Technology Southwestern, Nigeria. Teacher profile examined the gender, age, qualifications and work experience. Educational experiences are longer retained when learners are allowed to participate actively in real than abstract learning. Instructional materials bring in reality into teaching and learning by providing concrete examples as such the utilisation of instructional materials is very crucial to learning as it influences the behaviour of the student in all aspects of human endeavour and also makes teaching more effective.

Technological advances brought about the advent of instructional materials mostly the projected and electronic materials which has globally brought about social development in classroom teaching and learning resulting to a more dynamic and positive environment. This breakthrough in technology include projected and non-projected like the visual, auditory, audio-visual electronic materials which serve as essential landmarks in conveying educational information during learning thus making education more pleasurable. (Medeyase, 2009). Attitude is a theoretical construct indicating the level or manner a person likes or dislikes an article or object. Attitude, whether intrinsically or extrinsically motivated plays a major role in influencing performance at any stage.. The attitude of a learner to a course of study or

subject in a great way influences learning achievement. Likewise a teachers' attitude to teaching will greatly affect his or her interest and performance in teaching. Attitude influences a person's structured way of thoughts, emotions and reactions to learning. Without positive attitude students have little chance of learning proficiently, if at all. (Akubiro, 2004). It therefore becomes imperative that both teachers and students of community health programme bring in positive attitude if they must realize the desired objectives of setting up the programme.
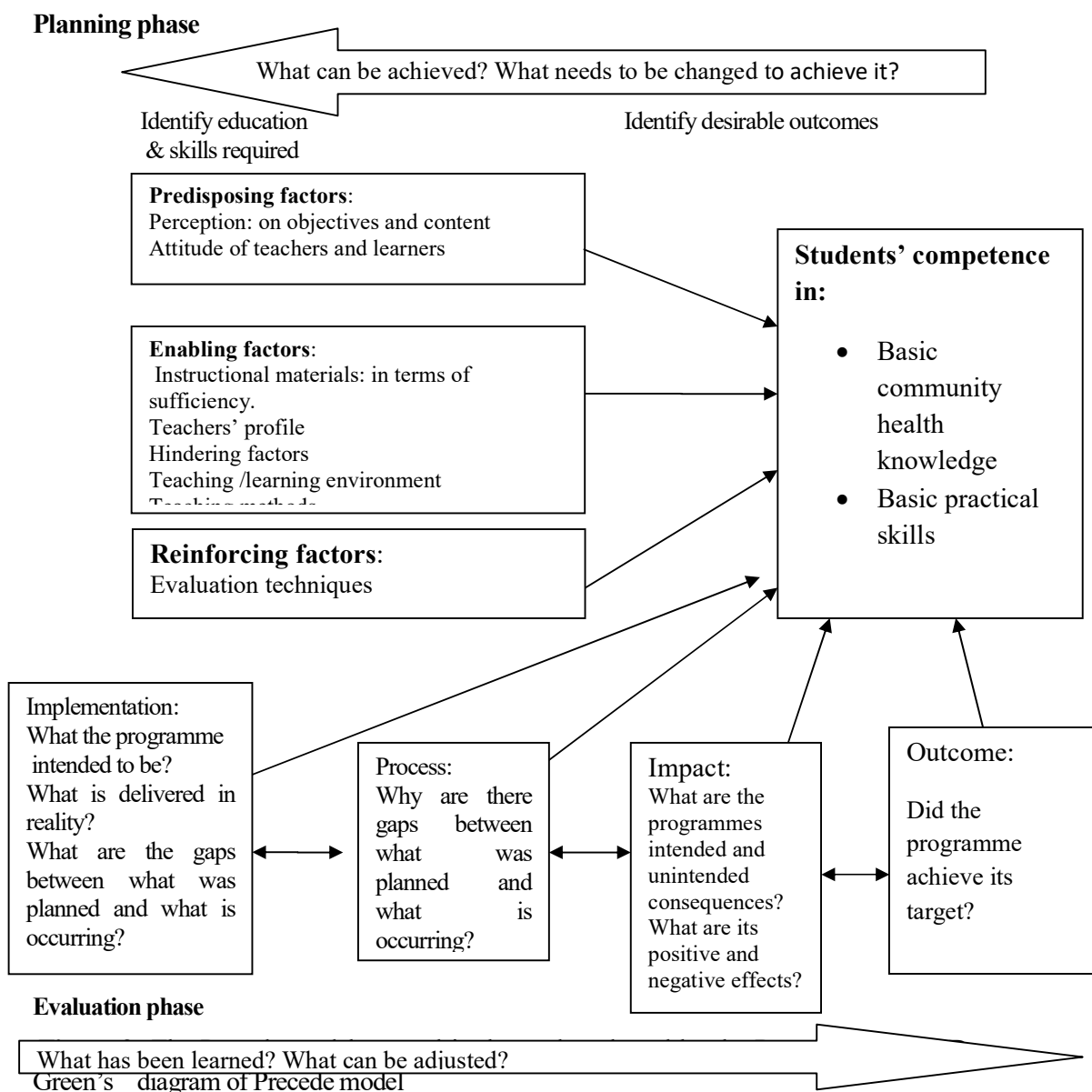
Thirdly, in process evaluation of the community health curriculum, the researcher examined the teaching methodology, assessment techniques and hindering factors in the implementation of community health curriculum in Colleges of Health Technology in Southwestern, Nigeria. Ogundele, (2002) was of the opinion that teaching method is not more than communication which must be effective between teachers and learners. He identified the factors affecting methods as teacher's differences, learner's attitude, subject content's interest etc. Finally, in product evaluation the researcher evaluated the students' competence in basic community health knowledge and practical skills of the final year students who are almost completing the curriculum in Colleges of Health Technology in Southwestern, Nigeria.

THEORETICAL FRAMEWORK OF THE STUDY

The Precede Proceed Model

This model was first developed and introduced in the 1970s by Dr. Lawrence W. Greenas a cost – benefit evaluation framework. It is a frame work that assists health programme planners, policy makers, and evaluators to analyse the situation, design and evaluate a health programme efficiently. It provides a comprehensive structure for assessing health and quality of life needs and for designing, implementing and evaluating health and other public health programmes to meet those needs. It starts with assessment of the group live-in environment taking into account the societal issues which bring about change. It examines both internal and external factors of the group that predispose it (precede) to changes. Priorities are set; a programme is developed, implemented and finally evaluated. The educational diagnosis phase of precede stresses behaviour-environment relationship and predisposing, enabling, and reinforcing factors (Moronkola and Okanlawon 2003).

The Precede Proceed Model

Planning phase

What can be achieved? What needs to be changed to achieve it?

Identify education
& skills required

Identify desirable outcomes

Predisposing factors:
Perception: on objectives and content
Attitude of teachers and learners

Enabling factors:
 Instructional materials: in terms of sufficiency.
Teachers' profile
Hindering factors
Teaching /learning environment
Teaching methods

Reinforcing factors:
Evaluation techniques

Students' competence in:

- Basic community health knowledge
- Basic practical skills

Implementation:
What the programme intended to be?
What is delivered in reality?
What are the gaps between what was planned and what is occurring?

Process:
Why are there gaps between what was planned and what is occurring?

Impact:
What are the programmes intended and unintended consequences?
What are its positive and negative effects?

Outcome:

Did the programme achieve its target?

Evaluation phase

What has been learned? What can be adjusted?

Green's diagram of Precede model

 In this framework, health behaviour is regarded as being influenced by both individual and environmental factors, and hence it has two distinct parts: an "educational diagnosis"(PRECEDE, an acronym for predisposing , reinforcing, and enabling construct in Educational Diagnosis and Evaluation and "Ecological diagnosis"(PROCEED), for policy, regulatory, and organizational constructs, in educational, and environmental development. This model is multidimensional and founded in the social/ behavioural sciences, epidemiological, administration and education. The PRECEDE is analyzed thus;

P= Predisposing factors such as knowledge, attitude, beliefs, personal preferences, existing skills and self, efficacy towards the desired behavior change

R= Reinforcing factors that reward or reinforce the desired change e.g. social support, economic, rewards and changing norms.

E= Enabling factors are skills or physical factors such as availability, accessibility, and utilization of resources that facilitate achievement of motivation to change bahaviour.

The framework of this model is implemented in seven stages:

1. Social diagnosis: identification of problems.

2. Epidemiological, behavioural, and environmental diagnosis: this includes diagnosis and identification of social related behavioural and environmental problems related to the identified problems. It involves filtering of the list so that intervention can be centred on specific health problem.

3. Educational and ecological diagnosis: this is the identification of the predisposing, enabling and reinforcing factors that will lead to and sustain change process.

4. Administrative and policy diagnosis: this include compatibility of the programme goals and objectives with that of the organisation and its administration Does it fit into the mission statement, rules and regulations that are needed for the implementation and sustainability of the programme?

5. Implementation of the programme.

6. Process evaluation: this is used to evaluate the process of programme implementation, whether it is being implemented according to protocol.

7. Impact evaluation: this measures the effectiveness of the programme with regards to the intermediate objectives and changes in predisposing, enabling, and reinforcing factors.

8. Outcome evaluation; this measures change in terms of overall objective and effect it has on its learner.

Implication to the study: The Community Health Practitioners' Registration Board of Nigeria which is the professional regulatory body for the community health programme observed a deficiency in the training needs of the community health extension programme due to the changes in the health care delivery. This led to the revision of the programme curriculum in 2006.

This curriculum evaluation was necessitated by the need to improve the knowledge and skills of the learner to enhance their performance in community health

care. The review entailed the inclusion of new and important subjects and issues in primary health care in the light of emerging health problems. The new curriculum is also designed to give learners a broad knowledge base to function effectively in present day health care delivery setting. With this evaluation, it is hoped that with adequate preparation of teachers and continuous improvement in facilities in the training institutions, community health practitioners with the correct mix of knowledge, skills and character would be produced to deliver primary health care services where people work and live. Having diagnosed the problem and identified the behavior that needs to be changed, modified or included in the programme in order to achieve the desired programme goals for setting up the programme.

The Precede-proceed model is applicable to this study as it evaluates the curriculum and its implementation to ascertain what is being delivered in reality. Is it in line with the intended goal? What is the gap between what was and what is occurring? What are the relations between the components of the programme? How effective is the programme in terms of impact and did the programme achieve its target as planned? Are the resources available, adequate, and sufficient? How does administrative and organizational policy favour the programme? Precede-proceed model is a participatory model for creating successful community health programme and intervention. It is based on the premise that behaviour change is by and large voluntary, health programmes are more likely to be effective if they are planned and evaluated with the active participation of people who will implement them and others who would be affected by them. Thus it is important that in planning and evaluating a school curriculum for a health programme, the administrators, teachers and learners should be involved for the programme to be effective.

SOCIAL SYSTEM THEORY

The school system which comprises of six subsystems which include learners, principals, administrative staff, parents, and the society provide the structure for change to occur in the educational system. Each subsystem works to achieve an equilibrium, though functioning separately yet interdependently where need be. (Hanson, 1972).The social system theory is a combination of individual actors interacting with each other in a situation. It is an aggregation of individuals and institutional organisation located in various degrees of interdependence. Social system theory simply refers to a set of components that interact for a purpose within a

boundary that filters input and outputs. The school is seen as a social system where individuals partake elatedly to achieve, a unique common goal within an environment that has an external influence.

SOCIAL SYSTEM THEORY

INPUTS   OUTPUTS

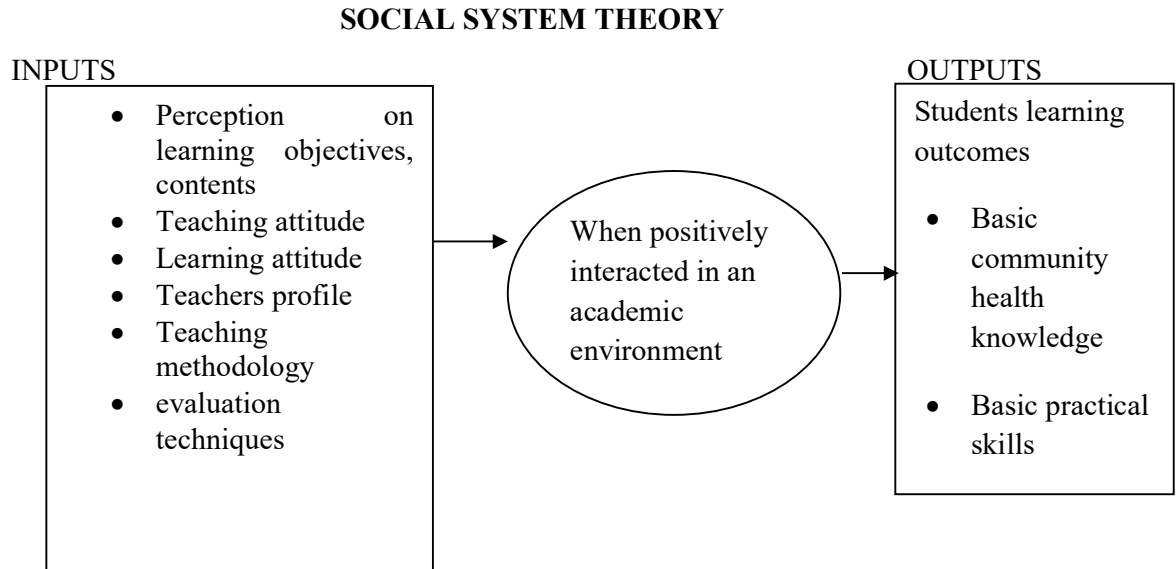| INPUTS		OUTPUTS
• Perception on learning objectives, contents • Teaching attitude • Learning attitude • Teachers profile • Teaching methodology • evaluation techniques	When positively interacted in an academic environment	Students learning outcomes • Basic community health knowledge • Basic practical skills

Figure 3: Adaptation of the Social System Theory to the Study.

Hence, in a school setting, all the stake holders concerned with the business of education (students, teachers, administrators, parents, community, and government) etc work together towards the success of the school system. Based on the explanation of the social theory, it can be postulated that the inputs include stakeholders view of the Community Health curriculum in terms of relevance and adequacy of its (a) objectives, (b) content, attitude to learning and teaching, sufficient resources, teaching methods, teachers profile, hindering factors have a relationship with the output, that is students learning outcomes on basic community health knowledge and practical skills. According to Ogundiran, (2008) the inputs has to undergo some conversion processes like organisation, activation, planning etc in an attempt to convert the human skills and material into products, services and other outputs, that is the intended changes in the behaviour of the students. These various processing activities and interactions make the system capable of yielding certain outputs, which can satisfy the system's aspirations and expectations. Outputs in terms of students learning outcome and other levels of performances) consists of all the changes, which the school has produced, all learning skills, knowledge, and attitudes observable from the products of the system.

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The output flows across the educational boundary to the larger society from where the inputs were obtained in the first place to form a dynamic organic whole.

The Concept of Health

Over the years, the term health has been defined in various ways in literature often centered on five ideas; well being, quality of life, happiness, wholeness and positive health. Health has often been explained as having three dimensions which are in delicate balance: physical, mental and social well being as some people believe that there is a fourth dimension, spiritual health, and that an upset in anyone of these areas affect the others.The physical health concerns the body; mental health concerns the ability to think and make judgment; emotional health refers to the recognition and appropriate discharge of feeling states. Social health involves the integration of somebody in a web of social relationship; spiritual health is the recognition and ability to put into practice moral religious principles or beliefs. Another important dimension is sexual health, which is the acceptance and ability to achieve a satisfactory expression of one's sexuality. The importance of this definition is that it provides a framework which can be used to measure health by focusing on the different dimensions mentioned above. In other words, health is a state of balance between various aspects of life. When the various aspects are in balance, one experiences a quality of life called health (Moronkola, 2003; Akinsola, 2006).

The word health is derived from words like whole, hale and healing, signifying that health concerns the whole person and his or her integrity, soundness or well-being. The layman views health simply as ability to perform social roles. This means that once an individual is able to perform the activities of daily living, no matter the results of health indices, the person is considered healthy. Health is a basic need of life which enables full utilization of all other facilities to make life better, richer and more meaningful. Health can be viewed personally, as the ability of a man to carry out various activities and maintain a good and well defined life devoid of diseases or insanity. Health is not an empirical fact or objective phenomenon; rather it is a human contract that individuals in a given society invent in accordance with their cultural values and social norm. Health is a state of body and mind well functioning, which affords individuals the ability to strive towards their functional objectives and their culturally desired goals (Abubakar, 2007).

However the most widely cited but criticized definition of health is the one offered by World Health Organisation (WHO, 1948). WHO provided a holistic perception of a classic definition of the word health as a state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity? Terris in 1975 observed that epidemiologists consider the definition of health by WHO as being "vague and imprecise with a Utopian aura" Terris therefore in 1975 further extended the definition. "Health is a state of physical, mental and social well-being and the ability to function and not merely the absence of illness and infirmity". By expunging the word "complete" and including "ability to function" the WHO definition was placed a more realistic context, providing a useful framework for health promotion (Stanhope & Lancaster 2004).In spite of the various criticisms levied against the WHO definition of health, it remains the only standard definition that can be applied by researchers and scientists to measure health in different settings without being subjective.

The Concept of Community Health

In the past, public health was viewed as the science and art of preventing disease, prolonging life and promoting health and well being through organised community effort for the sanitation of the environment, the control of communicable infections, the organisation of medical and nursing services for the early diagnosis and prevention of disease, the education of the individuals in personal health and the development of the social machinery to assure everyone a standard of living adequate for the maintenance or improvement of health. Organised community effort is the key to community health. There are certain things the individual can do entirely alone but many health benefits can be obtained only through united community effort. Community health is a broad term generally accepted as referring to the organized effort of all agencies both private and governmental in the community that are directed towards promoting health (WHO, 2004). It relates to the health status of members of the community, the problems affecting their health and to the totality of the members of the community, the problems affecting their health and to the totality of health care provided to the community. The health of a community is measured in terms of the health of all the individual citizens (Moronkola and Okanlawon 2003).

According to Alakija (2000), community health is that part of medicine concerned with the health of the whole population and the prevention of diseases from

which the population suffers, it identifies the root causes of disease and health problems not only from the individual but also from family, the community and the environment, it utilizes principally the community resources to solve their health problems, through resources from government and private sector can also be used, it aims at giving the highest level of health for all people in the community and such level includes that of physical, mental, moral, social, and physical health.

Alakija (2000) further identified the areas covered by community health as; Community structure (Demography), community function (Sociology), pattern of disease (Epidemiology), organisation and administration of different services that may be provided for the whole community which include environmental control, immunisation and child spacing, nutrition, health education and finally organisation and administration of services that may be provided for the whole community e.g. mother and young children, school children, workers and handicapped.

History of Community Health Training

Scientific medicine has evolved slowly over the last few millennia and very rapidly over the last 150 years or so. The rise of university based medical schools, the increased numbers of trained physicians, the income and attendant political power they generated resulted in license regulations. Such regulations were effective in improving the quality of medical care but also resulted in a reduced supply of clinical care providers. This further increased the fees doctors could charge and encouraged them to concentrate in larger towns and cities where the population was denser, hospitals were more available, and professional and social relationships more convenient (Uneke et al, 2008)

Cost and access to medical care remain problems of worldwide scope. They are particularly severe in the developing world and it is estimated one million more health care workers are needed in Africa to meet the health-related Millennium Development Goals. In many developing countries, especially in Sub-Saharan Africa, there are critical shortages of highly educated health professionals. Current medical and nursing schools cannot train enough workers to keep up with increasing demand for health care services, internal and external emigration of health workers, low workforce productivity, and population growth. Doctors are few and concentrated in cities. Medical training is long and expensive.

According to Ebehi and Campbell (2011) quality of health personnel is a significant community health profile as such the training of community health workers became a necessity when it was difficult to train and retain doctors and nurses to work in the rural community. Thus, there were few qualified medical doctors and nurses rendering health care services to the teaming population in the urban centre. Furthermore, cost and access to medical care remain problems of worldwide scope which are particularly severe in the developing world. It is estimated that one million more health care workers are needed in Africa to meet the health-related Millennium Development Goals. It is estimated that to meet health workforce needs using the American or European model, Africa would need to build 300 medical schools with a total training cost of over $33 billion and it would take over 20 years just to catch up. Though many countries have increased their spending on health care and foreign money has been injected, much of it has been on specific disease-oriented programs. Health systems remain extremely weak, especially in rural areas. The World Health Assembly called for, "A health workforce that is matched in number, knowledge and skill sets to the needs of the population and which contributes to the achievement of health outcomes by utilizing a range of innovative methods". Community health workers are thought to be part of the answer (Labiran, Mafe, Onajole, and Lambo, 2008).

Nigeria has one of the largest stocks of human resource for health in Sub-Sahara Africa and Egypt. There are about 39,210 doctors and 124,629 nurses registered in the country, which translates to 30 doctors and 100 nurses per 100,000 populations. This compares favourably with the sub- Saharan African average of 25 doctors and 72 nurses per 100,000 populations. We also have 117,568 Community Health Practitioners comprising of Community Health Officers (WHO), Community Health Extension Workers (CHEW), and Junior Community Health Extension Workers (JCHEW). (National Primary Health Care Development Agency, 2012)

In Nigeria, there is need to at least double the number of all cadres of health staff in order to provide enough health workers to address the nation's current health needs. Numerically there is inadequacy of health workers which has become the binding constraint in implementing many health programmes. The proportion within 10km of a health center, clinic or hospital is 50% higher in urban regions compared to rural areas. Nigeria's overall maternal mortality is at 1100 per 100,000 live births among the highest in the world and within the country's analysis indicate that

maternal mortality is significantly higher in the rural regions of the country (Awofeso, 2010).

National Policy on Education (2004) documented that technology education is a post secondary education offered in polytechnics, monotechnics and colleges of education (technical). It is a form and level of specialized education with the aim developing the recipient's knowledge and abilities in the practical arts courses, applied sciences and mathematics. Technology education aims in developing practical skills, as well as the creative and innovative skills of students as it enhances and facilitates their problem-solving and decision-making skills. In essence, the mission of technology education is to instill in learners technological knowledge, practical skills, attitude and high quality habits in the correct proportions and at the right time and place to boost productivity and adaptation to varying environments and promote national development (Oke, 2003).

The specific aims and objectives of the Federal Government for technology education as stated in the National Policy on Education (2004) are; to provide manpower in applied science, technology, particularly at sub-professional level, to provide the knowledge and skills to its recipients essential for development of the nation, to give training and impact the necessary skills for the production of technicians, technologists and other skilled personnel who shall be innovative and independent, to train learners who can relate scientific knowledge in solving environmental problems for the use and convenience of man, to allow our young men and women have intelligent understanding of the ever-increasing complexity of technology and to give exposure on specialized study in the technology.

The Colleges of Health Technology were therefore established to achieve the above stated educational objectives under the National Board for Technical Education (NBTE). The Federal Government established the National Board for Technical Education by Act 9 of January 1977. The Colleges of Health Technology (CoHT) were established in the late 1970s as part of Nigeria's Basic Health Services Scheme to train a new cadre of PHC workers to staff the basic health units then being constructed. Currently, the CoHT/SoHT train a variety of PHC workers, including Community Health Extension Workers (CHEWs), Junior Community Health Extension Workers (JCHEWs), Environmental Health Officers, Medical Technicians and Records Clerks. The community health extension worker comprises the

community health aides, community health assistant and community health supervisors.

GUIDELINES FOR THE ESTABLISHMENT OF COMMUNITY HEALTH DEPARTMENT IN COLLEGES OF HEALTH TECHNOLOGY IN THE STATE (Community Health Practitioners Registration Board of Nigeria, 2010)

To establish Community Health courses in the Colleges of Health (CoHT) in any state, the following are the minimum requirements expected from the state ministry of health or any private organization.

1. **Location of the school:**

   The school should be located, preferably, in the rural area or semi-urban area and not in the state capital. It must have enough space of at least one (1) hectares of total landmass for recreational activities, future development, staff accommodation and student's hostel accommodation (site plan MUST be attached to the application)

   The school must adopt a local government area (LGA) at least one to serve as her practice area for practical experience for the students. There should be source (s) of electricity, potable water i.e. tap water or borehole which must be provided by the state or the private organization.

2. **Head of the institution:**

   Where the institution has other allied health training programmes, it will be preferred that the head of institution be chosen from among the Medical and health profession.

3. **Head of The Department (HoD)**

   a. The head of the department MUST be a primary health care tutor those with higher degree has added advantage.

   b. Primary health care tutors- minimum of five (5) full- time for provisional accreditation. All core community health courses must be taught by PHC tutors

   c. Lecturers from other departments and visiting or part time for all other course and specialties

   d. Administrative staff:

   - Clerical officers/ typists
   - Messenger/cleaner

4. **Physical facilities:**

   a. Administrative offices:

This should accommodate the:

i. Provost / principal's office with an anteroom and toilet facility.

ii. Administrative offices

iii. HoD community health office of 16 square metres size minimum (i.e. 12' x 12')

iv. Office equipment i.e. computer with accessories, filing cabinets, typewriter (where applicable).

b. Classroom:

Five (5) large classrooms- each classroom should comfortably accommodate 50 students.

c. Tutors' office:

Not more than two (2) tutors should be placed in an office of 16 square metres to enhance interaction with students; the school should start with at least five (5) primary health care tutors (PHCT)

d. Staff common room:

There should be a staff common room for staff meeting, social activities and sharing of ideas.

e. A large hall or auditorium:

There should be a very big hall (auditorium) which can be used as examination hall, for meeting or for other social activities.

f. Library:

A very spacious library accommodation which must have adequate reading tables and lending for students/staff. There should be a minimum of five thousand (5000) volumes of relevant and current textbooks. An e-library will be an added advantage.

g. Skills laboratory(demonstration room)

A very big demonstration room which accommodate about 50 students and their tutors at a time; the room must also have appropriate instrument / equipment in their right quantities:-

a) Instruments, dressing forceps, dissecting forceps, etc

b) Equipment e.g. sterilizer

c) Reagents

d) Models

e) Charts

f) Bed and beddings

g) Life size dolls

h) Screen etc.

H. Laboratory: An appropriately equipped and furnished, with the capacity to accommodate a minimum of 50 students at a time with necessary equipments and reagents.

1. Toilet facilities:

There should be adequately toilet facilities for the students/staff, at the classroom and hostel areas. It can be ventilated improved pit latrine (VIP) or water closet. Neatness and functionality should be reflected in the scoring guidelines.

j. School Demonstration Clinic:

There must be a functional School Demonstration Clinic with appropriate staff, to cater for the students, staff and individuals/families in the School's catchment area and the distance of the clinic from the school should be within 20meters. It should meet the minimum standard of the National Primary Health Care Development Agency (NPHCDA) for PHC model capable of delivering integrated services. Demonstration clinic should be separated from the skills laboratory.

K. Recreational facilities

There must be recreational facilities, including the following:-

a) Football pitch

b) Volley ball pitch

c) Table Tennis facilities, etc.

Equipement for Recreational Activities must be the following;-

a) Foot ball

b) Volley ball

c) Basket ball with the baskets

d) Bats, nets and table tennis balls, etc

L. Hostel Accommodation:

Preferably 4 square metre space per student. There must be hostel accommodation for both male and female students. Each room is to accommodate two (2) students only, and there must be adequate bathroom and toilet facilities, and a separate kitchen where students can cook their meals.

Each hostel must have student's common room where they can welcome visitors. This may have the following:-

a) Radio

b) Television

c) Indoor games; e.g ludo, whot-cards, scrabble, etc

M. Computer Laboratory:

The School must have a computer laboratory equipped with adequate computer units for training and students' practice session. A minimum of 25 Units of computer units is recommended.

5. **PRACTICE AREA**

The health facilities (comprehensive health centres and primary health centre's) designated for practice in the adopted LGA are to be used for rural experience for the students. The health facilities must be well equipped and adequately staffed with appropriate distribution of community health workers.

A duly signed Memorandum of Understanding (MOU) shall be requirement for private organization with owners of all selected health facilities (government or private) for this purpose.

One of the PHC tutors in the training institution **must** be nominated as the School PHC Coordinator who will liaise with the LGA PHC coordinator, and be responsible for all students posting for practical experience.

6. **FUNCTIONAL SCHOOL BUS**

The institution must possess at least one 32 seater bus and a vehicle for supervision

CONDITIONS FOR ACCREDITATION

A school in addition to scoring 60 percent and above must fulfill the following conditions:

a) The head of department must be a primary health care tutor who has undergone requisite training (not mere designation)

b) The school must have a Memorandum of Understanding with owners of health facilities used for students' training (for private institutions)

c) The school must possess a minimum of 5 PHC tutors for initial accreditation.

d) The school must score not less than 70 percent of the marks for medical laboratory.

e) The school must score at not less than 70 percent each for skill laboratory, school demonstration clinic and practice area.

Eligibility for Community Health Extension Worker (CHEW) Training in Colleges of Health Technology

The training of new cadres of health and health-related workers for PHC has been undertaken by many developing countries in pursuit of their PHC programmes. Initially to be eligible for training as a community health worker, the individual must possess a first school leaving certificate. Alternatively, he/she must have been working in the State Ministry of Health or a local government health department as a health assistant or a ward attendant or pharmacy attendant and other such jobs. For the position of higher community extension workers, application for training must be from a rural health assistant or community health aides with at least 2 years practical experience on the job. In 1996, the entry qualifications required to be possessed before training as community health extension workers was standardized (FMOH, 1996). Hence to be trained, an individual must fall under one of the following categories;

1. Possess senior secondary school certificate with 5 passes including English and 1 science subject or
a. Possess grade two teacher's certificate with pass in all papers
2. For advancements, a confirmed, academically qualified junior community health extension worker who has been on the grade for a minimum of 2 years.
3. Nomination and support by the LGA or other organization.

However following the review of the curriculum the entry requirement was further revised to be able to select the right candidate with the required entry behaviour to run the course and it include the possession of four credit level passes at WASC/NECO/GCE O' level at not more than two sittings. These, must include two science subjects including biology or health science. Pass in English and mathematics is compulsory.

Professional Qualities and Characteristics of Community Health Extension Worker training in Colleges of Health Technology

According to the 2006 community health curriculum, the Community Health Extension Worker (CHEW) is one who has successfully undergone training in community health in a College of Health Technology and is duly licensed to practice by the community Health Practitioners Registration Board of Nigeria. The community health extension worker must be acceptable to the community and be knowledgeable

of its norms and characteristics before he can hope to mobilize and educate the people in order to change their outlook to life. The Community Health Extension Worker (CHEW) is a senior cadre salaried member of the Primary Health Care (PHC) team who spends 50% of his/her time on Community based functions and 50% in the Clinic. He/she has the responsibility of supervising the Junior Community Health Extension Workers (JCHEWs) the Community Health Extension Worker in-training, the Volunteer Village Health Workers and Traditional Birth Attendants. He/she is to be supervised by the Community Health Officer (CHO). The location of the job is in Local Government area, Primary Health Care Departments and in the communities.

Personal Qualities of a Community Health Extension Worker (CHEW) training in Colleges of Health Technology

The prospective Community Health Extension Worker (CHEW) must be healthy physically fit, mentally fit and able to communicate and work well with people in the community. He/she must be able to guide, supervise and give good leadership to subordinates. Furthermore he/she must be willing to live and work in the community, must be mature, approachable, friendly and honest. In addition to all he/she must be able to work independently and make good judgments when necessary (Curriculum for Community Health Extension workers, 2006).

Post Qualification Functions of a Community Health Extension Worker (CHEW)

According to the curriculum for Community Health Extension workers, 2006, the function of a CHEW is divided into community based functions; clinic based functions as well as the training function. They include the following:

Community Based Functions based on basic practical community based skills

1. Explain to the Community, the Primary Health Care approach of the Nigerian Health System and his role as a member of the health team to link the community with health care system.
2. Carry out community mobilization for health action.
3. Guide and support the Volunteer Village Health Workers {WHWs)/Traditional Birth Attendants (TBAs) and Junior Community Health Extension Workers to initiate preliminary contact with the leaders.

4. Familiarize self with target population and health services within the community.

5. Follow-up and provide support for the initial contact made by the Volunteer Village Health Workers/Traditional Birth Attendants of Junior Community Health Extension Workers with the Community Leaders.

6. Initiate the formation and facilitate the effective functioning of the Development Committees.

7. Attend Community Development Committees meeting in rotation at least 2 times in a year.

8. Participate in, and supervise Primary Health Care house numbering and placement of home-based records.

9. Update house numbering and placement of Home-Based Records during home visits, and through reports and records from Junior Community Health Extension Workers and Volunteer Village Health Workers/Traditional Birth Attendants.

10. Initiate and work with the community and other health workers to carry out community diagnosis and continuous health needs assessment of the Community. (Health needs include areas related to provision of good roads, good water supply, education, agriculture, Nutritional problems, HIV/AIDS, poverty eradication, etc).

11. Initiate and work with the community and other health workers to carry out general community survey, social and cultural characteristics of the community.

12. Work with other health workers and the community to identify major health problems of the community, including HIV/AIDS, teenage pregnancies, juvenile delinquency, problems of the elderly, gender inequality, etc.

13. Teach the Junior Community Health Extension Workers simple methods of data collection and analysis.

14. Participate in the analysis of data collected

15. Initiate and/or work with his supervising officer and community members to:
    a) Prioritize health problems.
    b) Plan solutions to identified health needs
    c) Identify available resources to solve the health problems,
    d) Set coverage objectives (targets)
    e) Identify workable interventions

16. Prepare and/or assist the supervising officers in preparing budget for implementation of plans

17. Prepare a schedule of activities for the delivery of services to tackle the priority health problems.

18. Work with Supervising-Officer, Junior Community Health Extension Workers, Volunteer Village Health Workers/Traditional Birth Attendants and Community members to carry out plans.

19. Development of a monthly work plan with the approval of Supervising Officers.

20. Coordinate the work plan of the Junior Community Health Extension Workers and the Volunteer Village Health Workers/Traditional Birth Attendants.

21. Manage Junior Community Health Extension Workers and Volunteer Village Health Worker/Traditional Birth Attendants referrals and 'At-Risk' cases within the community using Standing Orders.

22. Support Junior Community Health Extension Workers and Volunteer Village Health Workers/Traditional Birth Attendants efforts on health education, and initiate periodic health education campaigns within the community.

23. Supervision of activities of the Junior Community Health Extension Workers and Volunteer Village Health Workers/Traditional Birth Attendants and give feedback.

24. Assessment of accomplished set coverage objectives (targets) by Junior Community Health Extension Workers and Volunteer Village Health Workers/Traditional Birth Attendants.

25. Collection and collation of records collected by Junior Community Health Extension Workers and Volunteer Village Health Workers Traditional Birth Attendants and forward these to the Supervising Officer.

26. Essential Drug System and the Drug Revolving Fund operation supervision

27. Accurate record keeping of activities and health problems as required within the area of coverage

28. Analysis and summarization of collected data and presentation in simple graphic form.

29. Compilation of monthly returns and reports, as well as send to the supervising officer and the Community Development Committee.

30. Receive update from Volunteer Village Health Workers/Traditional Birth Attendants records, information on births, deaths and new entrants into the community.

31. Decide, in consultation with Community Health Officer where available, when there is need for more pre-packaged drugs.

32. Maintain a roster for regular servicing of equipment, if Community Health Officer is not available.

33. Constantly monitor staff and vehicle movements, if Community Health Officer is not available.

34. Maintain a roster decided upon with Volunteer Village Health Workers (WHWs) Traditional Birth Attendants (TBAs) for meetings, and inform the community.

35. Carry out all other duties assigned to him by his Supervising Officer. (Curriculum for diploma in Community health, 2006)

Clinic Based Functions based on basic practical clinical skills

1. Provide integrated Primary Health Care Services

2. Organise and run Integrated Primary Health Care Services where Community Health Officer is not available. These services are listed in the Nigeria National Health Plan and include:

3. Health Education concerning prevention and control of prevailing health problems.

4. Promotion of water supply and basic sanitation

5. Maternal and child Health, including reproductive health e.g. provide ante-natal care and delivery of normal pregnancy, post-natal care and specified reproductive health services.

6. Provide immunization services

7. Manage logistics and cold chain system

8. Carry out sterilization of equipment according to established protocol.

9. Treat common conditions and injuries

10. Perform simple laboratory test and examination e.g. haemoglobin estimation, stool and urine testing, etc.

11. Keep and check that clinic equipments are safe and in good working order

12. Promote mental and dental health.

13. Collect and collate monitoring and evaluation data for the National Health Management Information System (NHMIS) from the Community and Health Facility and forward to the Ward level.

14. Carry out with Community Health Officer (where available) the day-to-day administration of health services in the target population (Curriculum for Community Health Extension workers, 2006).

Training Functions based on basic community health knowledge

1. Identify learning needs of Junior Community Health Extension Workers (JCHEWs) and Volunteer Village Health Workers (VVHWs) /Traditional Birth Attendants (TBAs) and members of the Community Development Committee.

2. Provide on-the-job training as necessary

3. Collaborate in the planning, implementation and evaluation of training programmes for JCHEWs and VVHWs. TBAs.

4. Teach the Junior Community Health Extension Workers simple methods of data collection, collation and analysis (Curriculum for diploma in community Health, 2006).

The Concept of Curriculum

The fact that the term curriculum does not have any single exact definition ultimately leads to the emergence of various interpretations from different educators. While some educators define the concept of curriculum as subjects or subject matters, the others define it as experiences that learners has under the guidance of the school. However, according to Moronkola, Akinsola and Abe (2000) educational institutions or educational programmes are set up to teach or instruct learners about knowledge, ideas, thoughts, principles and theories of old and current knowledge. Programmes are also set to advance progress among human societies. Like any other concept that attracts much attention from experts, there are many definitions or explanations of what constitutes curriculum.

Furthermore, according to Moronkola, Akinsola and Abe (2000) curriculum as a word is derived from a Latin word "curere", which means 'to run. As it was earlier associated with race courses and the running of races and it is now commonly defined as a "work schedule" or a particular "body of courses" and generally linked with an orderly plan and progression. It can be viewed as all the learning which is planned and guided by the school whether it is carried out either in groups or individually, inside or outside the school system. Curriculum must be seen as the reconstruction of knowledge and experience, systematically developed with the guidance of the school or relevant agencies which will enable the learner to have better mastery of learning experiences for the learners and the society's well being. Curriculum must be a reflection of what people think, feel, believe or do. Curriculum is not limited to the total experiences the learner is exposed to at each level of education like primary

school curriculum, secondary school curriculum, mathematics curriculum, health education curriculum etc; it also helps the school or an educational programme to have a focus despite all odds. (Moronkola, Akinsola & Abe 2000)

Most definitions of curriculum refer just to the academic activities conducted within the confines of the school; however, Ayodele, Adegbile and Adewale (2009) described the curriculum as a systematically organized course of teaching and learning. Furthermore, they explained that curriculum centre narrowly on the planned collection of subjects above a series of grade or scores, while others involve learners and educators actively carry out. Thus, the narrow perspectives refers to the curriculum as just those academic activities conducted within the confines of the school, while the broad perspective of curriculum refers to all those activities, within and outside the school, as well as all other activities and agencies that are connected, even if remotely, with the business of education.

To summarise what experts say about curriculum, World Confederation of Organization of the Teaching Profession (WCOTP), 1987) in Moronkola, Akinsola and Abe 2000 stated that it is difficult to talk of the right or wrong curriculum definitions. The organization also identified two main categories of definitions of curriculum: the narrow and the broad. The former sees curriculum as a package (something tangible to be taken away and used) while the later sees the package as a method or system, and the constant efforts concerned to bring this package into existence, the idea following the development of the package and the constant work in making curriculum relevant to the society.

The organization (WCOTP) further gave some examples of narrow and broad definitions of curriculum arranged in such a way that the narrowest comes first and the broadest comes last: They define curriculum are:

a) Teaching highlights or emphasis requirement by examiners
b) Contents of a specified subjects
c) Sum up of school syllabuses
d) Mixture of classroom activities and activities outside the classroom
e) Total of all experiences undergone within the school age as required by the society
f) Continuous series of experiences essential to translate aims and objectives of education into real or concrete experiences, materials, and obvious change in behaviour.

According to Moronkola, Akinsola and Abe (2000) definitions (a,b,c) tend to see curriculum as a package. Definitions (d) and (e) lie between the narrow and the broad, because they emphasize activities beyond syllabuses and classroom teaching. On the other hand, definition (f) emphasizes the entire process of curriculum making.

In conclusion, the range of definitions all refer to activities and instruments needed to make educational dreams easy to realize. Each of (a) and (e) is embodied in definition (f) concluding that the narrow forms of definitions are all sub-sets of the more all embracing process type of definition. It also helps in understanding the nature and structure of each subject matter properly so that a teacher, for example can, having understood that structure, teach its contents well. Therefore, a standard curriculum is expected to have the following characteristics: firstly it should have a philosophy, an intention, a purpose or series of well designed educational objectives. Secondly, it should be planned and organized although the existence and effects of the hidden curriculum are recognized. This is usually unplanned or unintended non-academic, non formal but educationally significant consequences of schooling. Thirdly it should consist of a body of culture of the people. Fourthly it should incorporate an evaluation scheme and finally it should be dynamic i.e. it is expected to serve as a means of achieving the test it sets out to do.

Classification of curriculum definition

Moronkola, Akinsola and Abe 2000 identified two major ways of classifying curriculum definitions:

(a) Traditional interpretation which emphasizes that curriculum as all the school activities the student is exposed to under the schools' supervision, or courses offered in the school or school system which does not involve experiences like excursion, recreations, drama generally categorised as "extra-curricular" activities.

b) Modern explanation defines the curriculum as all school activities the learner is exposed to within and outside the school environment, whether on the time table or not in spite of how or when they learn it.

Curriculum Theories as used in the study

A theory is a set of interrelated construct or concepts, definitions, and propositions that present a systematic view of phenomena by specifying relations

among variables with the purpose of explaining and predicting the phenomena (Kerlinger, 2000). It is thus a set of integrated facts upon which a subject is based. Through a theory, systematic connection of existing body of facts is used to explain and predict a phenomenon.

This study is rooted in and derives its support from four types of curriculum:

1.	Event Theory: - It is the characterizing of factors and events and relating them. This is subsumed in theory of instruction which concerns itself with the factors that predispose a child to learn effectively. This theory has bearing with the sufficiency of resources required for learning in Colleges of Health Technology as explored in the study.

2.	Formal Curriculum Theory: - This theory focuses on the structure of curriculum content. It identified the content design of a curriculum document. With respect to this study the objectives, contents, evaluation techniques of community health curriculum were considered. In this case, the stakeholders responded to its structure in term of relevance and adequacy to the recipients and society at large.

3.	Valuation Curriculum Theory: - It identifies the instructional content considered valuable, essential and included in the curriculum in terms of the kind of knowledge and skills impacted on the students. This examined the students' competence in basic community health knowledge and practical skills which are needed to meet the health needs of the society.

3.	Praxiological Curriculum Theory; - This theory deals with the means for teaching curriculum objectives. In this study this included the methods of approaching the students for the attainment of the learning outcomes in community health curriculum (Beauchamp 1975).

Stages of Curriculum Development

There are stages in curriculum development as it is not a one event activity. Ajala (1996) submitted that curriculum development encompasses the planning, organization, conduct and improvement of both the formal and informal phases of the curriculum. He then outlined the procedure for developing school curriculum as (i) Determining objectives, (ii) selection of subject matter (iii) selection of materials and (iv)selection of methods. He advocated for continuous evaluation in order to identify successes and shortcomings to determine specific changes needed and areas for additional work. Lewy (1977) also identified six stages of Curriculum Development

Process. These are (i) Determination of general aims (ii) Planning (iii) Try-out (iv) Field trial (v) Implementation and (vi) Quality control.

(i)   Determination of General Aims

Since the school is a miniature society, what goes on in the school should be relevant to the needs and aspirations of the society since the products of the school will make use of their acquired knowledge to better the lots of the society. The relevant stake holders in the society that is, sociologists, economists, anthropologists, psychologists and others are employed to uncover trends and occupational, economic and value changes in the society and other useful information in making decisions about the overall aims and goals of the educational system.(Lewy, 1977)

(ii)   Planning

Having determined the general educational goals, curriculum expert are then asked to translate the goals into specific curricular activities. At this stage certain decisions are to be made concerning: objectives of a particular course of study, the course content and the teaching learning strategies to be employed. The quality of learning materials, accuracy and accessibility has to be taken into consideration too. The cognitive and affective characteristic of both the teachers and learners has to be considered too in the choice of learning materials. Curriculum experts will have to consider the feasibility of use of learning equipment and cost of implementation. Then comes the preliminary try-out of some learning experiences contained in the programme. Curriculum experts must ensure that the curriculum content tallies with the needs and aspirations of the society so as to make it relevant.

(iii)   Tryout and Revision

At this stage, the educational programme is being tested or tried out before they are approved for use on a large- scale. The tryout is usually done in two to six classes the choice of the classes is based on the principle of judgmental sampling so that they represent the different subgroups of the population for whom the programme has been developed. The tryout is carried out as soon as some sections or chapters of the programme are ready for use. At this stage students may learn some portions of the new programme before the full course has been completed. At this stage, a curriculum developer with the aid of formative evaluation instruments observes the teaching -

learning situation in the classroom with the intention of encouraging both teachers and students to identify difficulties observed in using the curriculum.Simultaneously, curriculum developer submits curriculum materials to various experts for assessment with the aim of pointing out areas that needs to be modified.

Based on the feedback received from the trial run and the experts' comments, a series of recommendations are made concerning desired alterations of the curriculum content.At this stage, members of the curriculum development team may detect errors in the programme which they might not observe at the planning stage. Summaries of feedbackreceived from the trial run by experts are then deliberated upon by the development and evaluation team. At such meeting, decisions are made concerning recommended modifications.The modified version of the curriculum is then prepared by the development team ready for use at the next stage, field trial.

(iv) Field trial

At this stage the document undergoes a field trial with a representative sample of the target population for which the document is meant. At this stage it is possible to observe the operation of the curriculum in a situation that resembles its actual expected use in the classroom situation. This stage differs from the former try out stage with regards to goals, programme characteristics and evaluation design.

The operations at the field trial stage differs to a large extent to what occurred at the trial out stage in that at this stage, the evaluation goal is mainly to specify how the curriculum is to be used, identify the conditions under which the programme can be successfully implemented and not to detect errors observed in it. At field trial stages, the bulk of the curriculum and not a fraction of it are available for field trial. Also a large number of classes are slated for the field trial compared to a small number of classes that are used at the try out stage. Again at the field trial stage the curriculum team are not allowed to intervene, they played passive role. So, the field trial is characterized by absolute freedom for field activities with limited intervention from the curriculum team. The field trial stage also makes use of large number of classes, 30-50 using random sampling procedure, typical of the general population for which the document is meant. The greater the heterogeneity of the school population the larger the sample needed for the field trial. The instruments adopted for the field trial include multiple choice tests and questionnaires while the respondent is relatively large.

(v) Implementation

At this stage, the curriculum is ready for school or whatever populace for which it is meant. Because of the newness of the documents the implementation may entails changes within the system. The teachers who are to make use of the document may require adequate training to update their knowledge on new teaching methods, strategies, classroom management and current trends in teaching learning process. Textbooks and other materials needed for the new curriculum may differ from the old ones. Implementation also requires the support and co-operation of the stakeholders such as: school heads, examination bodies such as, the National Examinations Council (NECO), West African Examination Council (WAEC) the National Business and Technical Education (NABTEB) and so forth. These bodies may need to modify their examination syllabus in line with the new curriculum.

(vi) Quality Control

Having succeeded in formulating a curriculum and putting it into use, efforts must be made to prevent the curriculum from deteriorating. This is done by ensuring follow up. This includes ensuring that the curriculum is well implemented in all schools and where there is difficulty in the implementation, necessary intervention should be done immediately to arrest the situation. This will reveal faulty areas of the curriculum that needs amendment or total replacement. It emphasizes continuous evaluation of the curriculum so as to make it remain relevant always.

Curriculum implementation

Onyeachu (2008) asserted that curriculum implementation or execution is the process through the combined efforts of stakeholders in education like teachers, learners, school administrators and parents as well as the interaction with the physical facilities, instructional materials, psychological and social environment put into practice what has been planned in the curriculum process in the classroom. Implementation of the curriculum involves the process through which the formally designed and approved course of study, syllabus and subject is put into practice. It entails assisting the student in the acquisition of knowledge, understanding, or experience. The student is the fundamental of the most important person in the process of implementing a curriculum, thus this process cannot take place without him/her. The student has to attain the designed or planned knowledge, idea, experience, skill and attitude intended to enable the said student function

meaningfully in the community. This is when it can be said that curriculum implementation has taken place successfully (Igberadja, 2014)

Purpose of implementation

Curriculum is implemented for the following reasons:

1. Translation of the ideals into workable blueprint and development of programme for its successful implementation.
2. To proffer advice on provision and monitoring of the necessary infrastructure required for a specified programme
3. Extensive awareness creation of a particular programme in order to ascertain if the institution adopting this programme has the required characteristics.

Factors that influence curriculum implementation

According to Igberedja, 2014, various factors that influence curriculum in tertiary institutions in Nigeria include; lecturers/teachers, students, culture and ideology, teaching resources, institutions infrastructural facilities, parents of students, institution/school environment, availability of funds and state of the nation.

Challenges in curriculum implementation in Nigerian Tertiary Institutions

Challenges of curriculum implementation can be likened to that of the problems of general education in the country. They include: inadequate and obsolete infrastructure and equipment like libraries, dilapidated classroom blocks and workshops, inadequate staff shortage, brain drain, lack of motivation, inadequate funding, high incidence of cultism, examination malpractice, unstable academic calendar, inadequate capacity in the institution for internal/ peer quality assessment (Igberedja, 2014) .

Furthermore, Okebukola 2012 in Igberedja, 2014 identified teachers' inadequacies, gross inadequacies in facilities, harsh and intimidating classroom, resource inadequacy, unhealthy classroom, shortage of equipment, inadequate instructional materials and poor quality preparation of lesson etc as other major challenges in implementing curriculum in tertiary institutions in Nigeria.

The Community Health Extension Workers Curriculum used in Colleges of Health Technology

The Community Health Extension Workers curriculum was developed in 1996 and from that time, health care delivery has witnessed many changes and new programmes have been introduced. These changes must be reflected in the training curriculum of Primary Health Care practitioners to benefit the clients. With this review, it was hoped that with adequate preparation of teachers and continuous improvement in facilities in training institutions, community health practitioners with the correct mix of knowledge, skills, and character would be produced to deliver Primary Health Care Services where people work and live.

The Community Health curriculum was revised in 2006. The revision of the curriculum was necessitated by the need to improve the knowledge and skills of the students to enhance performance in community health care. The review entailed the inclusion of new and important subjects and issues in Primary Health Care delivery. The new curriculum is also designed to give learners a broad knowledge base to function effectively in present day health care delivery setting. The new additions in the curriculum include subjects which were previously not taught and are now considered relevant in the light of emerging health problems. The programme is based on course units and credit system. It is structured to ensure that students receive adequate training in both theory and practice. Accordingly, the entry behaviour and length of the programmes were also reviewed.

At the end of 3 year training, a Certificate Diploma in Community Health is awarded and on registration, is duly licensed to practice by the regulatory body, the Community Health Practitioners Registration Board of Nigeria the grandaunt is qualified to perform the three main functions of a Community Health which are community based functions, clinic based functions and training functions. The Community Health curriculum therefore remains a vital tool in ensuring that quality community health practitioners are produced to provide quality health services at the grass root level. (Curriculum for Diploma in Community Health, 2006)

The Concept of Evaluation in Education

The major aim for evaluation in education is obtainment of information on interactions in the classroom as well the performance of the school teachers. These aims may also include identification of strengths and weakness of particular activities

of a programme. Because of this major reason evaluation can thrn be applied in all aspects of existence.

The process of systematic gathering of data or information for the purpose of assessing the worth of a programme, project, activity or situation as well as for taking further decision is known as evaluation. However, evaluation may not necessarily imply that something wrong or defective exists in a programme. It could serve as a form of insurance that good practice will be nurtured, continued and maintained. Evaluation is a means of finding out whether "the how" and "the what" of education are being achieved. Without evaluation to determine the status of an educational programme goals, and objectives, systematic and successful planning would hardly be possible. In education the teachers, students, administrators, facilities, services, budgets, instructional strategies e.t.c, can be evaluated to ascertain the merit of any educational endeavour.

Educational evaluation provides a driving force and direction to hard works put into education. Evaluation sheds light into the educational programme and gives direction as to the required next line of action furthermore educational evaluation helps to maintain, improve, or change any part of the educational programme. In other words evaluation is an integral component of an instructional programme. As air is important to living things so is evaluation important to any organisation or establishment

Types of Evaluation

The word evaluation came from a Latin word "valeo" which means "to value" or to "assess the worth or value of a thing". Evaluation is a very important part of decision-making process used in all phase of everyday living. There are two major forms of evaluation, namely, formative and summative evaluation. These are in forms of when the evaluation is done. Evaluation carried out when an educational programme or curriculum is still in progress so as to determine the extent to which the objectives of the programme are being achieved is formative. This makes it possible for the data collected for the evaluation to be used in making necessary modifications and refinements in the programme. This type of evaluation provides feedback that can be used to bring about improvement that can be used in the programme or curriculum. (Adegbile 2009).

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Summative evaluation is on overall effectiveness of the programme or projects. The summary report provided by the summative evaluator on the effectiveness , demerits and comparison with alternative projects apart from being useful in predicting subsequent successes provides guide to policy makers on decisions regarding the continuity or otherwise of the programme. The two broad categories of evaluation have been further subdivided based on the time evaluation is undertaken. These are evaluation undertaken during implementation which is described as an on-going, evaluation at completion (terminal evaluation);and finally, evaluation done some years after completion when the activity is expected to have reached its full impact (long range objectives) of the activity is expected to have been realized (ex-post facto evaluation) (Sarumi, 2003)

Finally Peat in 2000 classified evaluation into four, namely: Formative evaluation which helps to design, to identify problems before the final release of the materials, Summative evaluation which helps users choose the materials to use. While illuminative evaluation uncovers important factors that show up during the use, sometimes called surprise detection, integrative evaluation helps to make the best use of materials. Evaluation is an on-going activity at all phases in an educational process. This is to ensure the functionality and continuity of   a programme of learning. None of the forms of evaluation could be taken to be terminal since modern conceptions of curriculum process is that it is dynamic, cyclic and a continuous one.

Models of Curriculum Evaluation and evaluation of community health curriculum

Evaluation has a long history, which eventually led to the employment of different models of evaluation by experts in curriculum. A model in the first instance is a conceptual framework which guides curriculum evaluation it has three characteristics of precision, specificity, and verifiability. Evaluation models may vary to a great extent depending on the approach to the curriculum evaluation. Evaluation model serve the primary purpose of conceptualizing the field and set boundaries for an evaluation. Models of evaluation act as artist in moderating the type of questions to ask and the appropriate method of data collection to be adopted by the researcher. Evaluation model is a design or an approach for conducting an evaluation exercise. Evaluation model also shows the framework or schedule whereby an evaluation is carried out (Adegbile 2009). The various types include:

The countenance model (ATO)

This was developed by Stake in1967 and it consists of three stages of data sources. These elements are: antecedents, transactions and outcomes (ATO). It is known as ATO model which is the acronyms of the three stages involved. The antecedent data includes those conditions that existed prior to the programme implementation. The transaction data are activities that occur during the development and implementation of the programme while the outcome data is the specific output from the effect of the process. Onuka (2004) affirms that ATO model could be adopted for use in evaluating educational programme. The antecedent data would include entry behaviour, the training environment, and rationale for the training. The transaction data would be processes to the programme implementation and the classroom transaction. The outcome data included the specific skills, attitude and achievement as a result of the programme.

Discrepancy Evaluation model

Discrepancy model evaluates differences between actual and intended programme outcomes. Provus (1971) defined evaluation as a process of determining programme standards (objective), identifying whether there is a discrepancy between some aspect of programme performance and the standards for performance, using information about discrepancies whether to improve, terminate, or continue the programme or some aspect of it. The model provides feedback for improving programme performance since any discrepancies noted provides good basis for monitoring group.

Formative and Summative Evaluation Model

Michael Scriven coined the terms formative and summative evaluation in 1967 and described it as the developer-author-publishers oriented evaluation. The formative evaluation is designed to assist both students and teachers to point out where the learner has failed to learn or what the programme has failed to achieve in order to rectify the failure in future while summative evaluation is an evaluation at the terminal stage of a programme or a class lesson. Summative evaluation provides report on overall effectiveness of a programme and gives value judgment on the outcomes of the programme. It is mostly used by the policy makers.(Stufflebeam and Shinkfield, 2007)

Tyler's Model of Evaluation

Tyler in 1968 proposed one of the best known models of educational evaluation. He described education as a process in which three different foci are distinguished: educational objectives, learning experience, and examination of achievement. Evaluation, according to his conception means an examination of whether desired educational objectives are or not attained. Tyler's model has been used basically to evaluate the achievement level of individual learner or a group of learners. The model stresses that any educational model has three components: educational objectives, learning experience and examination of achievement.

The model ascertains that level of achievement of educational outcomes depends on the extent to which the education objectives have been transformed into learning experiences. Tyler's model deals with a variety of aspects of an educational programme and describes different activities that are connected with curriculum evaluation. Nevertheless, it has been criticized, for it disregards several important aspects that should be considered before making concrete decision on an educational programme, does not deal with the unplanned or unintended occurrence, and emphasis on the outcome of the programme while failing to take cognizance of process variables or to examine the antecedent conditions that might have caused the success of the programme (Stufflebeam and Shinfield, 2007). This study considered the objectives and contents of the curriculum (context), financial, human and material resources (input), teaching attitude, methods, instructional materials, evaluation techniques (process) and learning outcomes (product) of the Community Health curriculum package. Therefore, Tyler's   model of evaluation is not suitable for this kind of study as it could not provide answer to all the aspects identified in this study.

The Composite Goal Model

The Composite -Goal model is associated with the evaluation methodology proposed by Scriven and Stake in 1967. The rationale put forth for this model is that any input into an instructional programme (antecedents, the operating procedures (transactions) and end-results (outcomes) determine the success or failure of the programme. The data are to be analyzed in terms of what actually

happen (observation) and in turns data are evaluated in terms of congruency between what is intended and what actually happens (Stufflebeam and Shinkfield, 2007).

Context, input, process and product (CIPP) evaluation model

The CIPP model was developed by Guba and Stufflebeam in 1970. It is an evaluation framework to serve policy makers who are faced with four different kinds of decisions. In this case, the study endeavours to examine the overall impact of Community Health Curriculum. In essence, context, input, process and product were evaluated carefully. Advantages of the CIPP model include: practicality, effectiveness, efficiency, comprehensiveness, balance and usability. In carrying out this evaluation study, the researcher in line with the identified objectives of the evaluation, the areas or variables to be evaluated, designed valid instruments to collect data which was then analyzed before decision is made based on the results (Stufflebeam, 2007).

The CIPP model answers four questions on decision-making: what objectives should be accomplished? What procedures should be followed so as to accomplish the objective? Are the procedures working properly? Are the objectives being achieved? It is an acronym representing four types of evaluation context, input, process and product.

Context: defines and describes the environment where changes need to occur, identifies unmet needs and unused opportunities, diagnose specific problems, provides the rationale for justifying a particular programme and the objectives of a progamme.

Input: It aids programme planning, determines how to utilize the resources to best meet the objectives of the programme. It designs the means or procedures to use in order to attain the objectives. It emphasizes the strategies to be used for programme implementation. The results of information collected in input evaluation are often seen as procedures, policies, schedules, facilities, staffing, budgets and proposals.

Process: It guides the implementation plan. It also provides feedback to people responsible for implementation; it examines the progress of the programme, monitors potential sources of failure, provides information and describes what actually takes place within the implementation of the programme.

Product: It measures and interprets the attainment of objectives. It examines the effect of the programme on the students who have gone through it. It clarifies differences between the intended objectives and actual attainments. It helps in recycling decisions essentially, it guides the decision makers regarding the failure of the programme whether to continue, terminate or modify (Stufflebeam, 2007).

The CIPP model has been chosen as most suitable to this study as it provides a comprehensive opportunity to probe into four different but interrelated aspects of community health extension curriculum. Unlike other models CIPP model clearly identified input includes finance, human and material resources as one of major aspects to consider while carrying out evaluation of this nature. Many researchers have used the CIPP model in their evaluation studies and they found it very appropriate and useful. The CIPP is not limited to any specific program or solution thus it can easily be applied to multiple evaluation, it's comprehensive approach to evaluation can be applied from programme planning to programme outcome and fulfillment of core values and it is well established and has a long history of applicability. The purpose of this study was to evaluate Community Health curriculum in Colleges of Health Technology, South West Nigeria. Therefore, CIPP model was adopted for the study for it enabled the researcher to understand the context, input, process and products of the programme and be able to make some recommendations for the policy makers whether to continue, refocus or redirect.

Weakness of context input process product evaluation model

1. The CIPP model is subject to political or personal agendas which could shape the outcome of an evaluation
2. If followed in its entirety, the CIPP model could be costly and complex
3. The model could be said to blur the line between evaluation and other investigation processes such as needs assessment.
4. It serves the needs of the decision makers and may restrict or impede the evaluator's exploration of other issues that arise through the course of the evaluation.
5. It is not widely known and applied in the performance improvement field as other models

Empirical studies

Factors Affecting Learning Outcomes in Educational Institutions

There are various variables which have been identified to affect learning outcomes in educational institutions which may also be applied to colleges of health technology. The teacher's knowledge of the subject matter and the methods of teaching are known to be highly important in bringing about good performance among the pupils. Akinsolu, (2010) revealed that the following variables have been found to impinge on good academic performance. These are cognitive style, lack of instructional materials, deficiency in teaching, information processing, characteristics of students (such as learning strategies and study habits), students' perception of parental bahaviours, sex, and the teacher as a critical factor. Similarly, Balogun (1997) identified the following variables as input factors which are central to instructional process:

I. Teacher variables: the major ones are qualification; previous experience; motivation, sex/gender, perception of professional role and responsibility, professional goals and interest/ attitude

II. Pupil variables: the identified are study attitude/ habit, interests, sex/gender, developing capabilities/abilities, age, socio-economic status, etc

III. Task variables: the subject matter variable include their nature, interestingness; difficulty and dimension of organization

IV. Environmental variables: these are sociological and economic factors like equipments, materials, societal needs, admission policy etc

Finally method variable, learners activities in classroom, classroom climate, etc are also among the significant variables which could have implication for learning and can also be applied to teaching and learning in Colleges of Health Technology in South-Western Nigeria.

Effects of Attitude on student's learning outcome in community health training

Attitude, broadly conceived, studies have shown that a learner's attitude have impact on his or her academic attainment. Yoloye (1999) as cited by Ojo (2003) stated that attitude of a learner towards a subject determines to a large extent the measure of his interest, positive or negative to the particular subject. He submitted that a negative attitude leads to poor achievement and vice-versa. Akubuiro (2004) from his study reported that attitude towards a particular subject is positively

related to performance in the subject. They submitted that attitude contributes substantially more than other variables in predicting achievement.

A study carried out in Turkey in the spring term of 2002/2003 academic year to determine effect of academic achievement and attitude of students towards science lessons. The result confirmed a positive relation between attitude and academic achievement.

Instructional Materials and student's learning outcome in community health training

Instructors know too well that learning experience where students participate actively using concrete or real examples are longer retained than abstract learning. Elements of realism are brought into learning as instructional materials provide concrete examples to teaching activities. Instructional materials are the resources used by the teacher to instruct, present, exemplify, demonstrate, explain and simplify teaching activities. They are used to achieve educational goals and objectives by accelerating the rate at which learners learn and imprint a picture in their mind about the topic. Instructional materials aids learning by ensuring that at least more than one senses of the learner is utilized (Ogundele, 2002).

The choice of the various kinds of channels for teaching depends largely on the materials to be taught, where the teaching is to take place, and what is available or accessible in that setting. Instructional media can be divided into three groups known as print, non-print, and electronic. The print media includes texts, books, maps, journals while the non-print materials include projected material like slides, film-strips, film, and the electronic media include audio, visual and audio-visual which depend on largely on electrical supply to power it. (Ogundele, 2002; Elaturoti and Oniyide, 2003).

All these and many more can be used in community health training to stimulate a sense of observation in learners. Utilization of instructional materials has the tendency to make classroom environment dynamic, lively, attractive and interesting. No matter how commendable educational objectives and beneficial the school curriculum has been planned out, when teaching is carried out basically using conventional methods always lead to unsuccessful learning and development of poor learning attitude by students. Instructional materials in community health education

include all the practical and skill development materials that would facilitate the process of teaching, learning and evaluation of practical skill.

The resources are produced or obtained in order to aid community health tutors transmit planned knowledge, skill and attitude to students in a teaching environment aimed at promoting learning and to acquire the skills needed for provision primary health care services at the grassroots. The manner individuals take in and process information varies due. This is due to the fact that people have diverse preference in attributing meaning and acquiring information. Whilst a few would have preference for concrete information, others would prefer abstract information. While learning is enhanced for some through the use of visual illustrations like flowcharts, schematics and diagrams, others would prefer oral or verbal illustrations. Learners are more likely to carry on information longer and also make appropriate and effective use it if the method used by the teacher in teaching agrees with the learner learning style so. (Gomleksiz 2012).

Teaching methods and student's learning outcome in community health training

Teaching methods are designed to motivate the learner to discover, understand and have feelings concerning the subject matter being taught. Methods of teaching are nothing more than communication. For effective communication therefore, the utilization of all the senses of the body is of paramount importance. Teaching methods are important ingredients that make teaching effective; community health training has to be handled in ways that would bring about the desired change in learners' behaviour through exposure to different methods which will also promote conducive classroom climate as antecedents of success in the teaching-learning process. Factors that influence methods include: teachers differences, learners attitude and maturity, socio-economic and environmental issues, subject matter etc (Ogundele, 2002)

The channels or teaching methods used by educators to teach learners may enhance or deter learning. For teaching to be successful it is important that educators are adequately skilled to access all the available teaching methods and techniques. Although the teaching methods may vary greatly, none can be considered best in for all educational situations. It is important that a teacher carefully selects the best method of teaching or a combination of methods most appropriate in making teaching and learning effective. The ability of the teacher to examine and determine the goal for

teaching and learning, the content of the curriculum, the learner in the classroom and the nature of the topic under discussion will determine the best teaching method or methods to utilise in achieving the desired educational goals. (Moronkola, Akinsola and Abe 2000). The methods that can be used in teaching community health curriculum include lectures, drama, play role, debate, discussion, demonstration, practical activities, field trips, excursions etc

Teaching/learning processes and student's learning outcome in community health training

The teaching /learning process is the curriculum in action because it is through it that the success or failure of any curriculum can be determined. This process can be divided into three basic components each of which has sub- sections as shown in figure 5. In this model all the sections are inter-related. In teaching and learning process, the three processes must occur one after the other that is none can occur separately and have meaning. As such, a teacher is to plan contents adequately together with objectives, execute his plans adequately as well as assess the students in order to determine the degree to which the formulated objectives have been realized before teaching and learning can be said to have taken place.(Adegbile, 2011)

Teaching and Learning process

Teaching

Preparation	→	Execution	→	Assessment

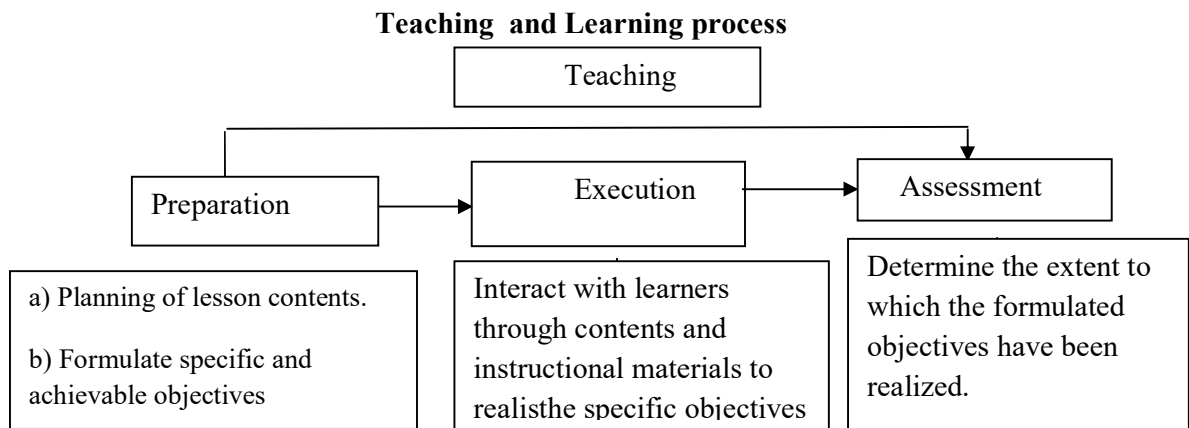| a) Planning of lesson contents. b) Formulate specific and achievable objectives	Interact with learners through contents and instructional materials to realisthe specific objectives	Determine the extent to which the formulated objectives have been realized.

Figure 3: Source: Adegbile (2011) Continuous assessment in curriculum and instruction

Teaching and learning environment and effects on students and teachers of community health training

The surrounding environment in which learning takes place has a significant influence in academic performance, health and well being of the learner. Moronkola

(2017a) describes a healthful school environment to be that which takes care of the health as well as the safety of learners and other members of the school community and further classified environment into physical environment like air, soil, waste disposal, lightening, ventilation, noise, climate, etc; biological environment to include microorganisms, social environment to include relationship as determined by culture, norms, customs , occupation and family etc while spiritual environment include the way people worship, faith, belief system etc. Moronkola (2017a) further observed that the need to address healthful school environment as the conditions in most primary to tertially institution especially the public ones is getting worse. There are situations where there are no chairs, tables, windows, doors, toilet facilities where "shot pot" is the method utilised by staff and learners, overcrowded classrooms due to insufficient classrooms, ill-equipped laboratories, lack of simple first aid boxes, unkempt school compounds, schools without gates, or less security, leading. The psychological or emotional environment in tertially institution involves relationship between staff and staff, between students and staff and between students and students in their day to day activities which affects learning negative when it is hostile.

Also Moronkola and Ogunmola (2015) asserted that school location, facilities for teaching and research, school policy and leadership, amenities and well-being of staff in a great way affects learning. Furthermore, according to Duruji, Azuh and Oviasogie (2014), learning environment such as classroom, libraries, technical workshops, laboratory, playgrounds, conveniences, hygiene, maintenance culture, aesthetics among others are factors that influence learning and academic performance of students. Therefore, there is to need for studies on and effective management of learning environment in order to boost students' performance. Not only do poor facilities have direct effect on students' learning ability, the combination of poor facilities and subsequent student's behaviour also creates an uninviting, stressful workplace for teachers.

Furthermore, Ajayi, Haastrup, Ekundayo and Osalusi (2010) identified that learning environment significantly affects school effectiveness which is the extent to which schools are able to accomplish the pre-determined objectives. School effectiveness transcends beyond students passing final examination. It also encompasses students' attainment in other domains of learning (affective and psychomotor) which also make beneficiary of the education system live a fulfilled life

and contribute significantly to the growth and progress of the society.

According to Gomleksiz 2012 an organised teaching and learning setting designed to provide successful teaching also enhances learning experience. Learners are to be in the know of their needs and what they are required to know. Environment for learning include "social environment," as well like members of the family and friends to a large extent influences the learner and also shape learning. Thus, it becomes important to provide learners with learning environment that is rich and supportive. A combination of a lot of factors is needed for a successful teaching; these include aspect of the teacher's background, way the teacher interacts with others, and also specific teaching practices. Teachers who are efficient are concerned about their learners and show this concern in a manner that their learners know it. This care builds a conducive classroom learning environment which is warm and supportive. Effective educator assists their learner to make learning and teaching easy by bringing the actual world to the learner by the use of technology. Thus, teachers have intense effects on students learning. (Schroder, Scott, Tolson, Huang, & Lee, 2007 in Gomleksiz 2012).

Effects of gender on Students' academic performance in community health training

Researchers and psychologists have recently been attracted to discussions of effect of gender on students' academic performance. However there is no agreement among scholars on this issue. Based on statistical findings some studies have revealed that gender has significant effect on academic performance of both male and female while other studies revealed otherwise.

Gender difference have become a hotlist of critical issues around the world especially in developing countries like Nigeria, as no country is yet to reach equality between women and men in diverse vital areas such as economic participation and education. According to khwaileh, Faisal, Zaza and Haider (2011) gender stereotyping is common in almost all spheres of life. The phenomena of gender difference is not only observed in daily life issues but in also in text books and teachers attitudes. Part of the gender stereotyping is that males are made to attend to perceived complex and difficult tasks within and outside the house while females on the other hand are assigned relatively easy thing.

However, Afuwape and Oludipe, (2008) examined the Integration science achievement of preservice teachers over a period of three years for gender difference. Data was collected from 126 male and 127 female final year students' results from Colleges of Education in Nigeria. Results showed that the gender gap between male and female students could be disappearing. This they said is a source of hope for the country because this is contrary to the common Nigeria conventional belief on male and female performance, Furthermore Okonna, Ushie and Okworo in their study in 2014 also revealed that no significant difference exists between the academic performance of male and female maritime security trainees. Finally, Adeyemi (2014) revealed that gender is not a significant determinant of students' academic performance in geography and map work and where difference was found it was found in favour of female students.

Time allotment and students' performance in community health training

Time is one of the very significant determinants of excellent student' academic performance and often this is a scarce recourse in school. It is a powerful factor in instruction and can propel students to great lengths or inhibit their progress over the course of the year. With a finite number of hours in the school, it is important to plan and prioritize. It is highly expected that everyone including teachers should make meaningful use of the little available time in carrying out a set task or assignment as no one has absolute control of this aspect of nature called time. Judicious use of time allotted for teaching in any educational Institution goes in a long way in determining the degree of achievements and success of set objectives and targets.

Waweru and Nyagosa in 2013 discovered that adequate time allotment is very important for achievement of learning objectives and that it is important that teachers attend school and are punctual to the largest extent possible, instructional time allotment for each subject is adequate for syllabus coverage and learning to take place, there is adequate time in classroom for learning each task are significant to achieve students performances.

Teachers' years of experience and students' performance in community health training

Years of experience can be considered as the number of years or duration cumulated over time in a particular job by an individual. It is expected that the longer

an individual spends on a job, the more the expertise and better the experience gathered in doing the same thing over time. This experience when accumulated enables the individual to develop the knowledge and skills which enhances job performances, better results and achievement of educational goals and objectives.

Teachers years of be experience can be regarded as the number of years put in by a teacher into the teaching profession during which it is expected that the teacher should have gather some wealth of experience in the profession. Expectedly, teachers' years of experience is expected to improve students' performance. Little wonder then, when job vacancies are advertised, preference is given to those with a certain tears of experience as this can be considered as a determinant of quality. Ewetan and Ewetan (2015) carried out a study of teachers teaching experience on students' academic performance in mathematics and English. Based on their performance in the SSC examination, the study revealed that performance in English and mathematics is greatly influenced by teachers' years of teaching experience. Secondly the schools having more teachers with 10years and above teaching experience had better results when compared to schools with more teachers with below 10years teaching experience.

Furthermore, Adeyemi (2008) carried out a study which also revealed that schools with five years and above teaching experience performed better in SSC examinations than schools having more teachers with five years and below and that teachers' teaching experience had a great influence in students' learning outcomes as revealed by their performance in SSC examinations. The importance of experienced teachers in schools cannot be overemphasized.

Appraisal of related literature

This study centered on the evaluation of community health curriculum in Colleges of Health Technology in Southwestern, Nigeria. It is an evaluative study using the context, input, process and product (CIPP) model of evaluation to evaluate the four important and interdependent parts of the community health curriculum. The reviewed literature include the conceptual framework which provided a direction and guide for the researcher, the concept of health and community health as viewed by various scholars. The curriculum which is the vital tool needed for training of

knowledgeable and skilled community health workers to render primary health care services at the grassroots including stages in curriculum development and curriculum theories as used in the study (Moronkola, Akinsola and Abe 2000). The community health extension worker must be acceptable to the community and be knowledgeable of its mores and characteristics before he/she can hope to mobilize and educate the people in order to change their outlook to life (community health extension workers curriculum, 2006). A review of the history, eligibility for training and post qualification functions which are grouped into community based, clinic based, and training functions of community health workers were carried out in the study (community health extension workers curriculum, 2006).

There are several input variables necessary for achieving learning outcomes discussed in the study. They are classified as teacher, learner, task and environmental variables. Previous studies on effect of attitude of learners, attitude of teachers, sufficient resources, teachers' teaching methods, profile, age, academic qualification and teaching experience which are necessary for achieving learning outcomes in learners in community health were reviewed in the study. (Balogun ,1997; Duze, 2012 ; Oladejo, Olosunde, Ojebisi, Ishola, 2011; Ogundele 2002,Elaturoti and Oniyide, 2003) Evaluation is the process of determining the value, or worth of a thing, programme, and institution etc, therefore, all aspects of life must be evaluated in order for progress to be made. The study reviewed the concept of evaluation in education, types of evaluation, types of evaluation models (Stufflebeam and Shinfield, 2007; Shinfield, 2007; Adegbile, 2009)

CHAPTER THREE
METHODOLOGY

This chapter presents the research methodology that was adopted for the study. These were discussed under the following sub-headings:

1. Research design
2. Population
3. Sample and sampling techniques
4. Research Instruments
5. Validity of the Instrument
6. Reliability of the Instrument
7. Field testing of the Instrument
8. Procedure for Data collection
9. Procedure for data analysis
10. Ethical considerations

Research Design

This study adopted a descriptive survey research design. This was because there was no direct control over the variables as they have manifested themselves already. Descriptive research seeks to collect detailed factual information that describes the natures of existing conditions, identify problems and practices, make comparison and evaluate existing conditions. Descriptive design is a commonly used approach to research when a researcher is interested in evaluating what is going on in a given situation as it helps to describe record, analyse and interpret the conditions that exist in the study.

Population

The population for this study comprised all Principals, teachers and students of the Department of Community Health in Colleges of Health Technology in six states (Ekiti, Lagos, Ogun, Ondo, Osun and Oyo) Southwestern, Nigeria.

Sample and Sampling Technique

A total of 544 respondents comprising of 6 Principals, 27 Teachers and 511 Students of the Community Health Extension training programme in Colleges of Health Technology,

Southwestern, Nigeria were used as study sample. Census technique (total enumeration) and purposive sampling techniques were used for the study. Purposive sampling technique was used to select the 300level students for the competence tests in knowledge and practical skills

Table 3:1: Population distributions in schools that participated in the study.

Name of school	Teachers		Chew 200level		Chew 300level	
	Number in school	Number that participated in the study	Number in class	Number that participated in the study	Number in class	Number that participated in the study
College of Health Technology,Ilese, Ogun State	5	5	52	52	48	45
College of Health Technology, Yaba, Lagos State	8	8	48	43	45	40
College of Health Technology,Ilesa, Osun State	8	8	34	31	55	50
College of Health Technology, Akure,Ondo State	4	4	37	31	49	49
College of Health Technology. Ijero-Ekiti, Ekiti state	4	4	49	48	39	36
College of Health Technology, Eleyele. Oyo State	4	4	57	51	40	35
Total	33	33	272	256	276	255
Total respondents	**544**					

Source: Heads of Community Health Departments in various Colleges of Health Technology in Southwestern, Nigeria.

Research Instrument

The instruments for data collection for this study were questionnaire, practical procedure checklist and focus group guide. Three researcher developed questionnaires were used which included questionnaire for principals and teachers, questionnaire for all students and questionnaire and practical procedure checklist for final year students (year 3) only. The

Focus Group Discussion was used to provide qualitative in-depth information on the focus of the study.

For the Principal and teachers questionnaire (PTQ), ninety-six (96) items were generated, and validated by experts and used for field-testing. Data generated were then subjected to factor analysis with 0.06 as criterion for retention of items. The result of the analysis showed that only seventy-four (74) met the criterion and were retained while others were expunged. While for the students' questionnaire (SQ), ninety (90) items were generated and used for pre-testing. Data generated were then subjected to factor analysis with 0.06 as criterion for retention of items. Eighty (80) items met the criterion and were retained while others were expunged.

The principals and teachers questionnaire (PTQ): This instrument was divided into sections A, B, C, D, and E. Section A included questions on teacher's socio- demographic data. Section B consists of items on adequacy and relevance of curriculum objectives, contents and evaluation techniques, teaching/learning environment and teaching time allotment. Each item was constructed using the 4 scale Likert ranking: 4 for Strongly Agree (SA), 3- Agree (A), 2- Disagree (D), 1-Strongly Disagree (SD). Section C consists of items to gather information on students' learning attitude and teaching methods employed in the teaching of community health course. Each item was constructed using Always, Often, Sometimes and Never. Section D consists of items on factors that may hinder effective implementation of community health curriculum in Colleges of Health Technology. The response options were in Yes and No options.Section E consists of the Instructional Materials Assessment Scale (IMAS). The IMAS is a research instrument designed to ascertain the sufficiency of instructional materials for teaching/ learning in the Colleges of Health Technology. It was a 4 scale ranking of Quite sufficient=4, Sufficient=3, Not Sufficient=2, and Completely Insufficient=1.

The Student's Questionnaire (SQ): This instrument is divided into 4 sections, A, B, C and D. Section A consists of students socio-demographic data while section B consists of items on adequacy and relevance of curriculum contents, objectives, evaluation techniques, teaching/learning environment and teaching time allotment. Each item was graded using the 4 scale Likert Scale. 4 for Strongly Agree (SA), 3- Agree (A), 2- Disagree (D), 1-Strongly Disagree (SD). Section C consists of items on teacher's teaching attitude and teaching methods employed in the teaching of Community health curriculum. It was a 4 scale ranking of Always=4, Often=3, Sometimes=2 and Never=2. Section D consists of the Instructional Materials Assessment Scale (IMAS). The IMAS is a research instrument designed to

ascertain the sufficiency of instructional materials for teaching/ learning in the Colleges of Health Technology. Each item will be accessed in 4 scale ranking of Quite sufficient=4, Sufficient=3, Not Sufficient=2, and Completely Insufficient=1.

The students learning outcome tests (SLOT): The instrument developed is divided into sections A, B and C. Section A is on student's socio-demographic data. Section B consists of items on basic community health practical skills. Section C consists of items on basic community health knowledge. Sections B and C contained options and respondents are to circle the correct option. A correct answer attracts one mark while a wrong answer attracts zero. The tests were conducted strictly under examination conditions and time allowed was 30 minutes.

The practical procedure checklist was used to score the final year students on 4 different practical procedures in the demonstration room. The checklist is graded in 0 for wrong procedure and 1 for right procedure.

Finally focus group discussion guide was used to elicit in-depth information on the evaluation of curriculum implementation using the focus group discussion guide. The guide has the main questions and some probe questions to guide the discussion.

Validity of the Research Instruments

To validate the instrument, the researcher presented the draft copies of the questionnaire to the supervisor and other lecturers in the Department of Human Kinetics and Health Education, Institute of Education and other relevant departments for comments and suggestions for both face and content validity. Suggestions made were carefully looked into and integrated in the final draft as appropriate in order to improve the quality of the instrument. The items of the questionnaire were raised based on previous empirical findings, available related questionnaires and literature. Some items were reconstructed, deleted or added after review by the supervisor and other experts in this field. The instrument was then subjected to factor analysis for construct analysis.

Reliability of the Research Instrument

To ensure the reliability of the instruments the corrected version of the instruments was administered on respondents from College of Health Technology, Offa, kwara state (1 principal, 10 teachers, 30 CHEW years 1&2 level and 30 CHEW final year students) reflecting characteristics similar to the population but not part of the respondents for the actual study. The items of the questionnaire were raised based on previous empirical findings,

available related questionnaires and literature. Some items were reconstructed, deleted or added after review by the supervisor and other experts in this field. The collated data was analysed using Cronbach alpha to determine the internal consistency of the instrument. The Students' Questionnaire (SQ) had 0.93, the Teachers and Principals' Questionnaire (PTQ) had reliability of 0.93. The students learning outcome questionnaire (SLOT) was analyzed using Kuder Richardson test and has reliability of 55% for section B, 50% for section C.

Field Testing of the Instruments

The field testing of the research instrument was carried out on respondents from College of Health Technology, Offa, Kwara state (1 principal, 10 teachers, 30 CHEW years 1&2 level and 30 CHEW final year students) who had similar characteristics like actual respondents but who were not part of the respondents for the actual study. The field-testing of the instrument was to acquaint the researcher with the problems that may be encountered during data collection, to ascertain the validity of the instruments and also to identify any ambiguities contained which were incorporated in final draft. It helps the researcher ascertain the reliability and significance of the instrument to be used for the study and to make corrections were necessary.

Procedure for Data collection

The researcher obtained a letter of introduction from the Head, Department of Human Kinetics and Health Education of Human Kinetics and Health Education University of Ibadan, Ibadan for identification purpose. Copies of the letter were presented to each head of school in order to seek approval for accessing the respondents. The questionnaires were administered by the researcher with the assistance of ten (10) trained research assistants in the selected schools in their respective states to facilitate the smooth conduct of the exercise. Copies of the administered questionnaire were retrieved immediately on completion from the respondents to ensure their high rate of retrieval for data analysis. Students' achievement tests were conducted under strict supervision of the researcher and assistants in various schools and were collected immediately after the expiration of the time allowed. The students learning outcome questionnaire was coded when it was given to students so that the code on it can be used to tag the practical procedure scores

For Focus Group Discussion (FGD), the consent of the Head of each school and participating students were obtained. Twelve students from each of the schools were used for the focus group discussion. Two sessions of the discussion was held in each school. The

students were adequately briefed about the topic of discussion. The questions raised under the guide were thoroughly and comprehensively discussed by the participants (students), while the research assistants helped to note down responses from participants. Each session lasted for one hour. A tape recorder was also used to record responses.

Procedure for Data Analysis

Completed copies of the administered questionnaire was collected, collated and analyzed. The descriptive statistics of frequency counts, percentages, standard deviation and mean were used to analyse data on socio- demographic data and to provide answers to the research questions. Inferential statistics of the multivariate analysis of variance (MANOVA) was used to test hypotheses 1-5. Furthermore, independent t-test was used for hypotheses 6 and 7 at 0.05 alpha significance level. For the qualitative data, FGD responses was tape recorded, effectively transcribed and facts extracted manually and analyzed using thematic-content analysis approach that involved grouping together of similar themes in each transcript. Identified themes and patterns were supported by direct quotes from participants.

Ethical consideration

The researcher obtained approval from the Ethical Board of the University of Ibadan, Head of Department of Human Kinetics and Health Education and Heads of Colleges of Health Technology in each state. The study maintained the principles of confidentiality, non-malficence, voluntariness and beneficence. The ethical approval number is UI/SSHEC/2015/0027

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

This chapter presents the results of data analysis and discussion of findings in this study. The presentation follows in the order of demographic characteristics, research questions and hypotheses formulated for the study respectively.

SOCIO DEMOGRAPHIC DATA OF STUDENTS

Figure 4:1 Bar chart showing the distribution of students according to their schools
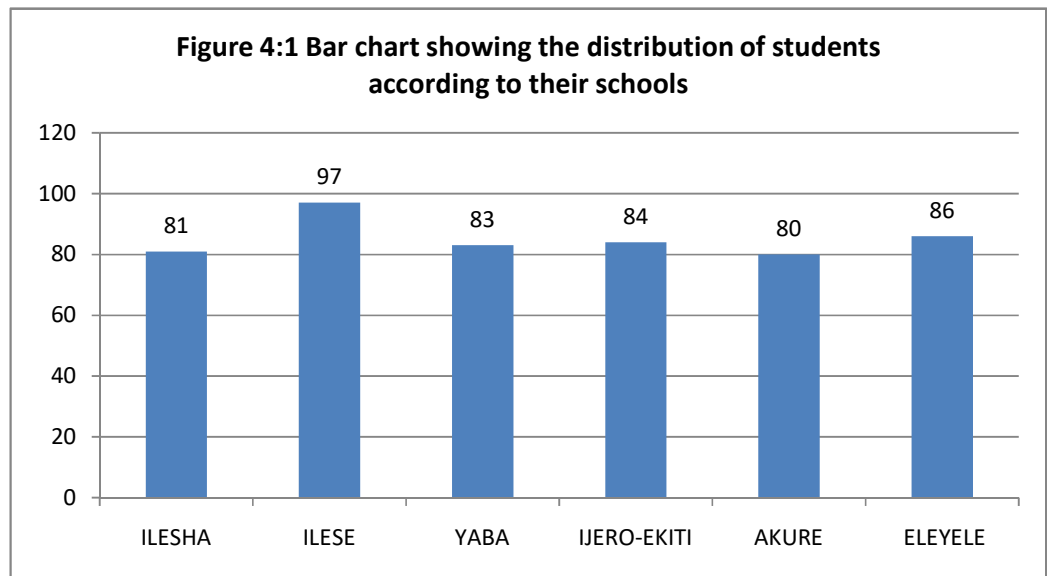
Figure 4:1 above shows that 97 (19%) of the students were from College of Health Technology Ilese, Ogun state, while 86 (16.8%) were from College of Health Technology, Eleyele, Oyo state, 84 (16.4%) were from College of Health Technology Ijero-Ekiti, Ekiti state, 83(16.2%) were from College of Health Technology Yaba, Lagos State, 81% (15.9%) were from College of Health Technology Ilesa, Osun state, and finally 80 (15.7%) were from College of Health Technology Akure, Ondo state

Figure 4:2 Pie chart showing the distribution of students according to their age
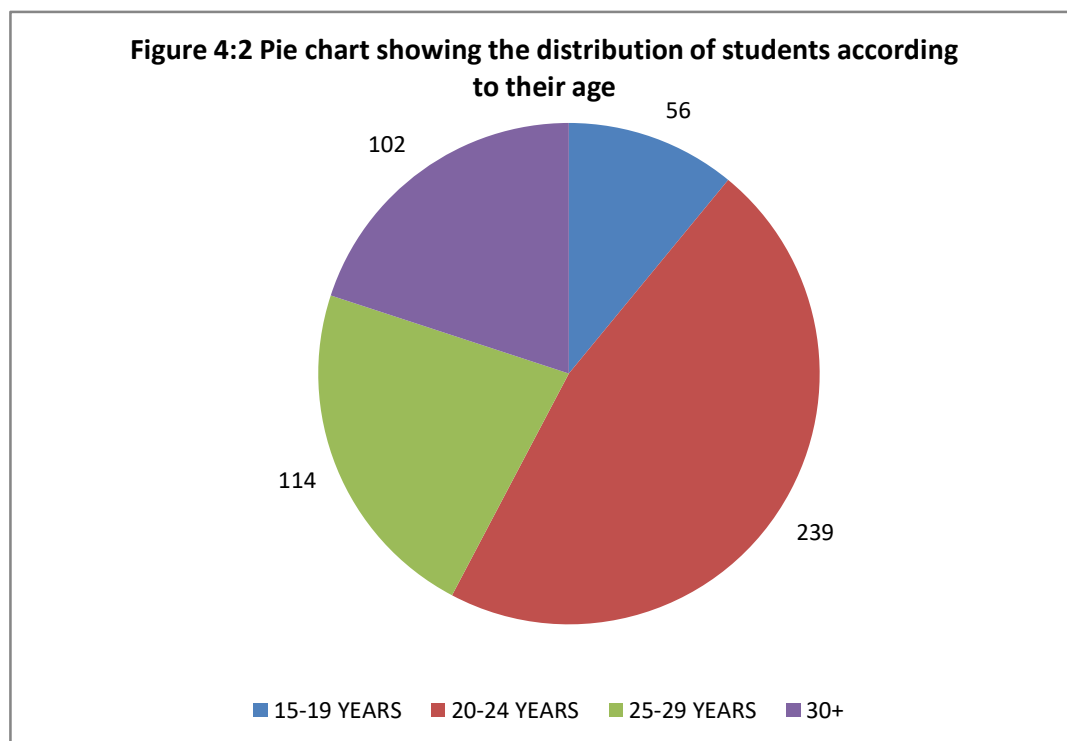
From figure 4:2 above, 239 (47%) of the respondents (students) were between the ages of 20-24yrs while 114 (22%) were between the ages of 25-29yrs, 102 (20%) of the respondents were 30yrs and above, 56 (11%) were 15-19years.

Figure 4:3 Pie chart showing the distribution of students according to levels

255   256

CHEW 2   CHEW 3
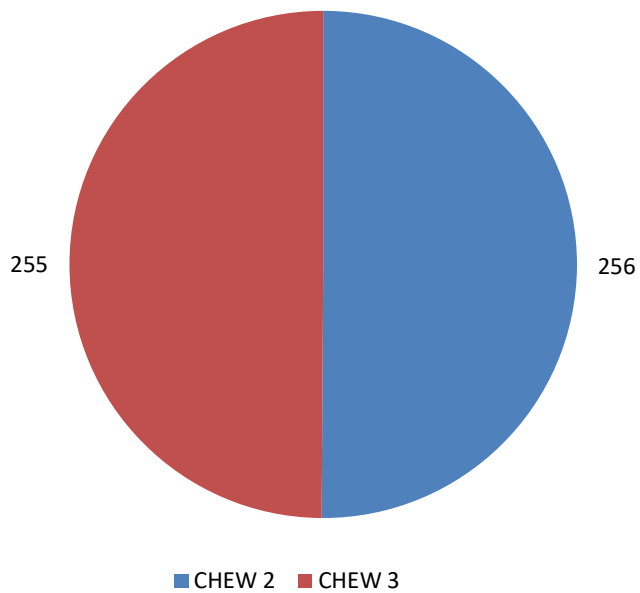
Figure 4:3 above shows that 256(50.1%) of the respondents (students) were in 200 level while 255 (49.9%) were in 300 level.

figure 4:4 Pie chart showing the distribution of students according to gender

76

435
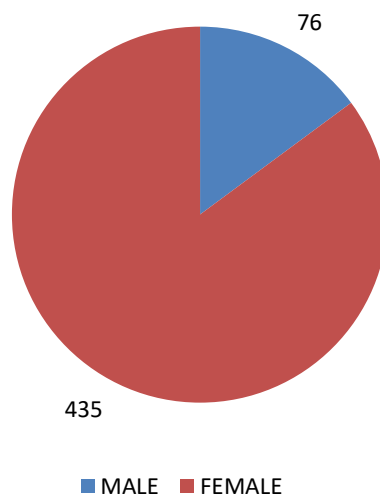
MALE   FEMALE

From figure 4:4 above, majority of the respondents (students) 435 (85.1%) were females and 76 (14.9%) were males

SOCIO DEMOGRAPHIC DATA OF TEACHERS

Figure 4:5 Pie chart showing the distribution of teachers according to gender
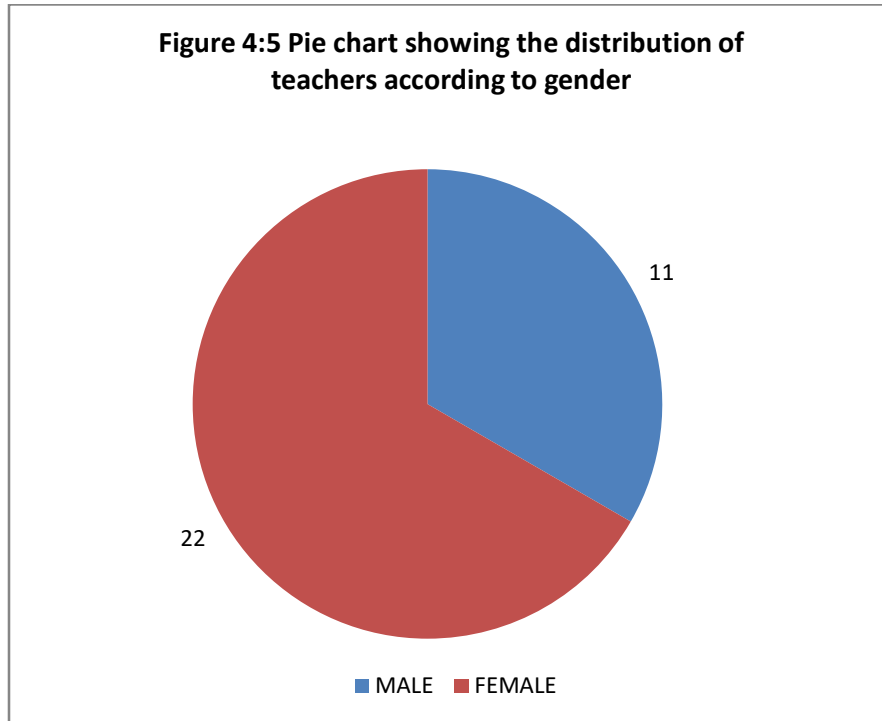
From figure 4:5 above, majority of the teachers were females 22(66.7%), while 11 (33.3%) were males.

Fig 4.6 A Pie Chart showing the number of PHC Tutors in each College of Health Technology, Southwestern, Nigeria.

fig: 4.6:Number of primary health care tutors in each college
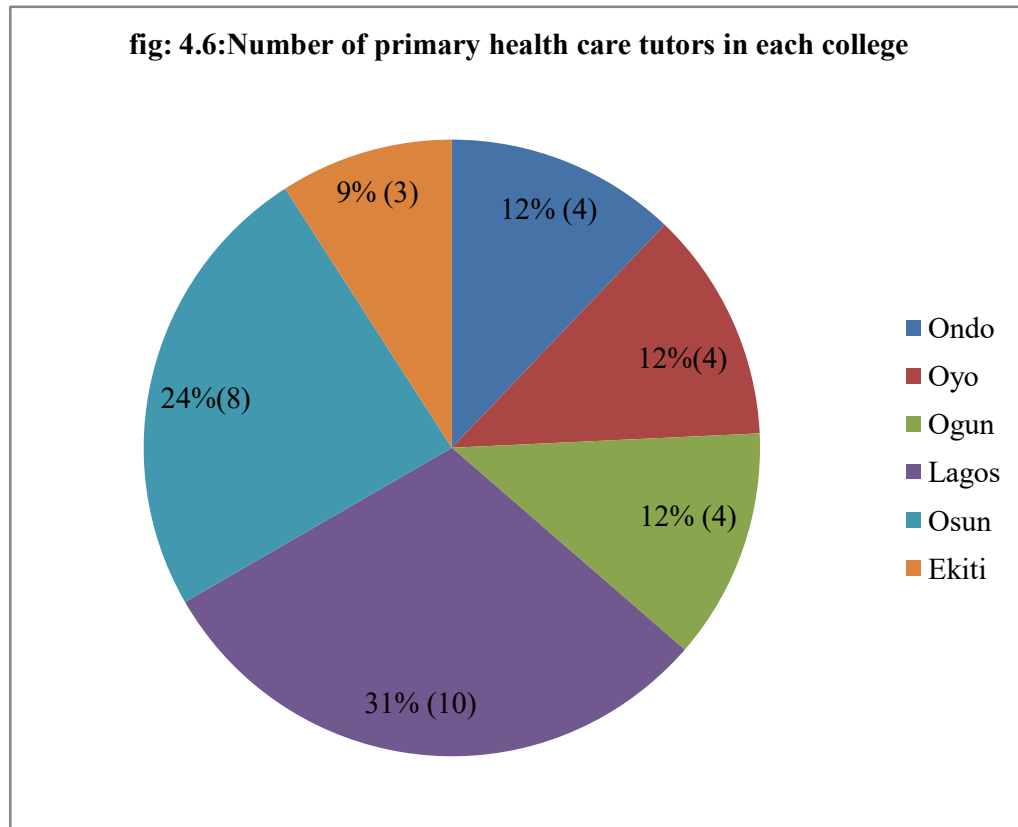
Figure 4:6 above shows that College of Health Technology Yaba, Lagos has the greatest number of Primary Health Care Tutors 10 (31%), followed by College of Health Technology, Ilesa. Osun State with 8(24%). Colleges of Health Technology, Oyo, Ogun and Ondo were next with 4 (12%) each and finally College of Health Technology Ijero-ekiti 3(9%).

figure 4:7 Pie chart showing the distribution of teachers according to Educational Qualification

Legend: CHO, PHC TUTOR, B.sc, B.Ed, MASTERS DEGREE, Ph.D
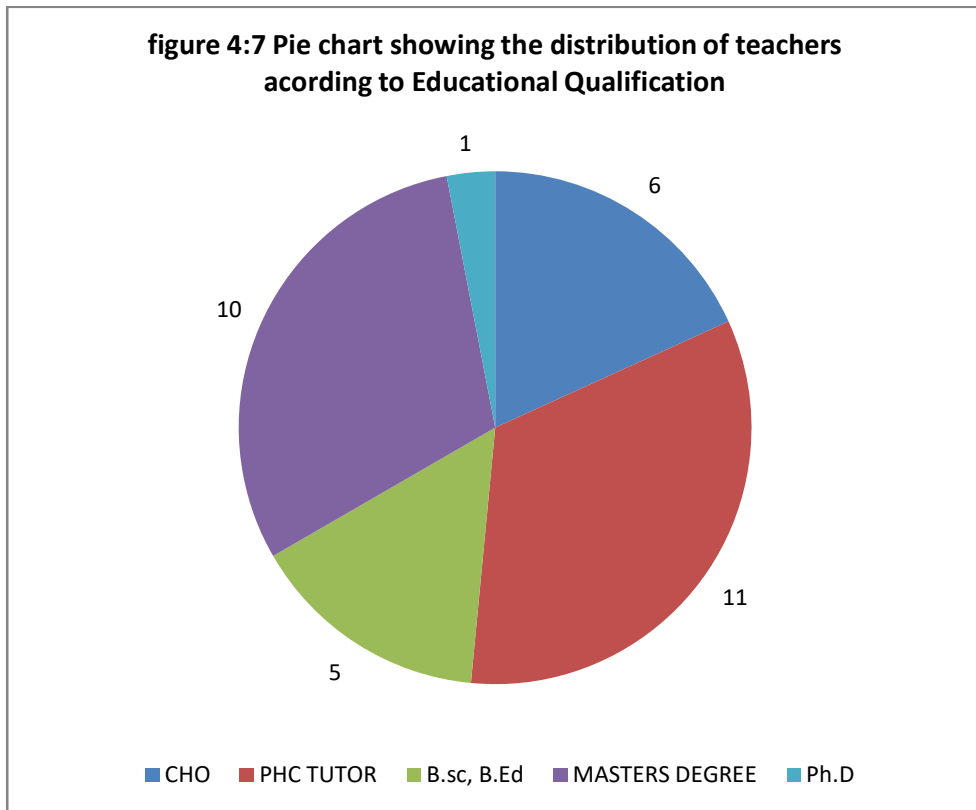
From figure 4:7 above 10(30.3%) of the teachers possess master degree and other qualifications, 11(33.3%) possess only PHC tutors and CHO certificates, 6 (18.2%) had only CHO certificates, 5 (15.2%) had B.Sc, B.Ed and only 1 (3.0%)   had PhD and others.

figure 4:8 Pie chart showing the distribution of teachers according to number of courses taught

Legend: 1 COURSE, 2 COURSES, 3 COURSES, 4 COURSES, ABOVE 4 COURSES
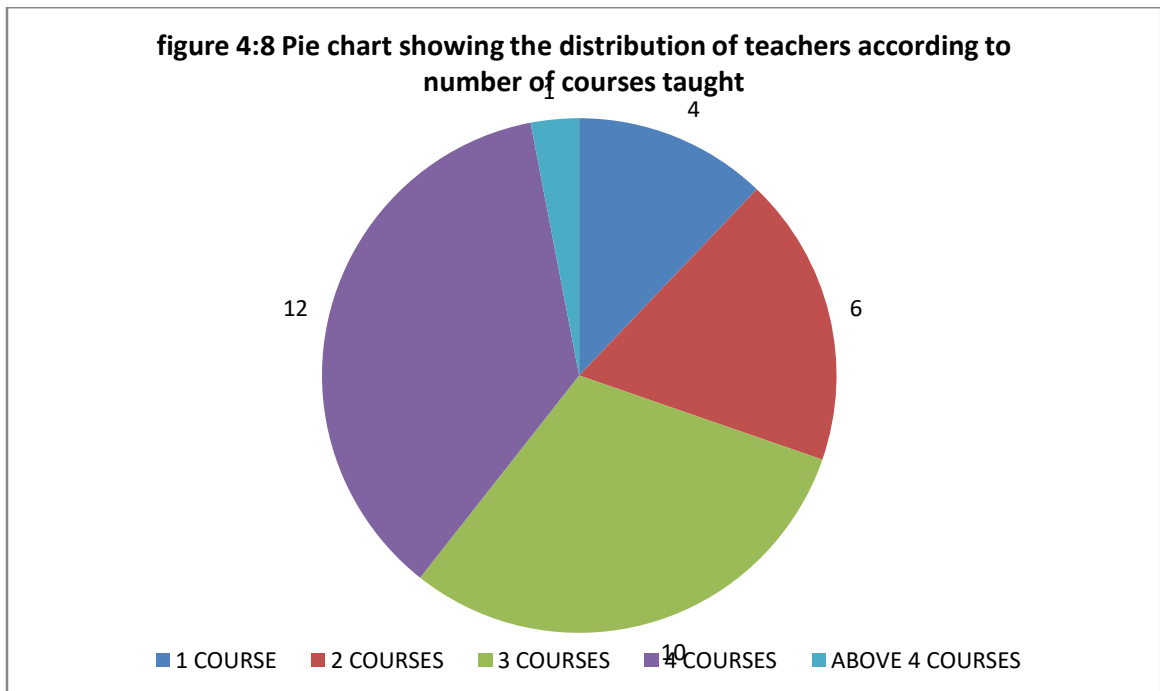
From figure 4:8, 12(36.4%) of the teachers teach 4 courses, 10(30.3%) teach 3 courses, 6(18.2%) teach 2 courses, 4 (12.1%) teach only 1course, and finally 1(3.0%) teach above 4 courses.

figure 4:9 Pie chart showing the distribution of teacher according to their teaching experience

Legend: ■ BELOW 5 YEARS ■ 6-10 YEARS ■ 11-15 YEARS ■ 26-30 YEARS
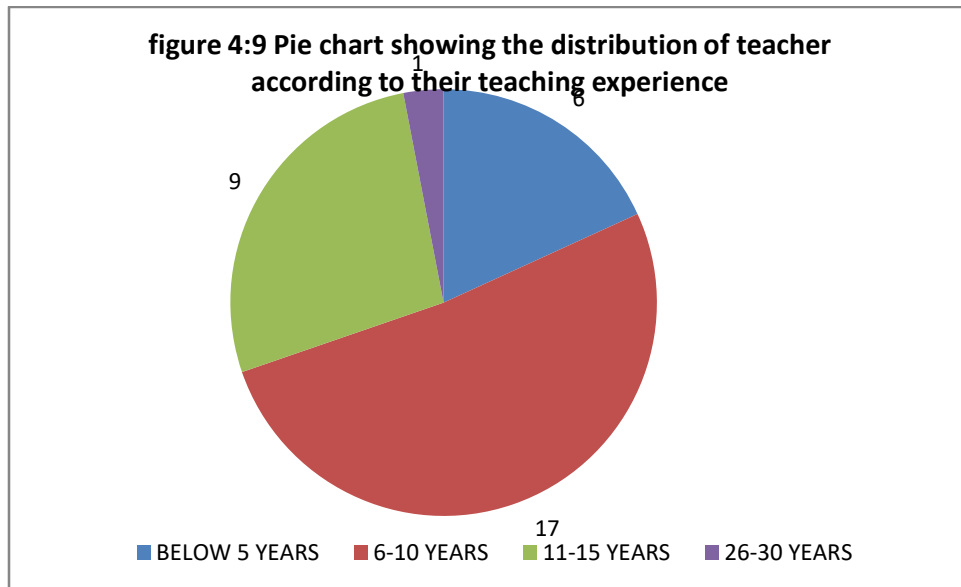
From figure 4:9 above 17(51.5%)of the teachers have 6-10 years teaching experience, 9 (27.3%) have 11-15years teaching experience, 6(18.2%) have below 5years teaching experience, 1 (3.0%) has 26-30years teaching experience.

fig4:10:Bar chart showing the age distribution of teachers
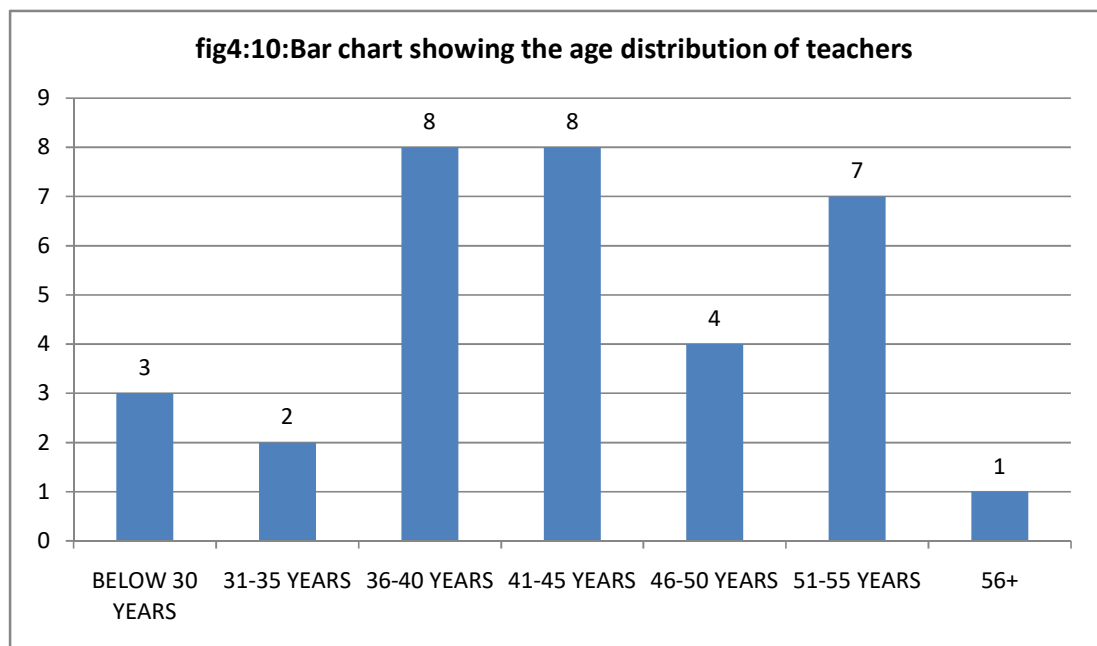
Figure 4:10 above revealed 8 (24.2%) of the teachers were between the ages of 36-40yrs and 8(24.2%) 41-45yrs, 7 (21.2%) were between the ages of 51-55yrs,

4(12.1%) between the ages of 46-50yrs, 3(9.1%) below 30yrs, 2(6.1%) between the ages of 31-35yrs and finally 1(3.0%) were aged 56 and above.

Research Questions 1: Is the teaching and learning environment adequate for the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria?

Table 4:1a Responses of students on the adequacy of teaching and learning environment.

S/N	Items	D	SD	A	SA	Mean	S.D
1	The school environment provides an atmosphere conducive for learning	122 23.9%	188 36.8%	131 25.6%	70 13.7%	2.29	0.98
2	School environment is free of distracting noise	131 25.6%	196 38.4%	130 25.4%	54 10.6%	2.21	0.94
3	There are sufficient classrooms	143 28.0%	168 32.9%	136 26.6%	64 12.5%	2.24	0.84
4	Toilet facilities are adequate	214 41.9%	202 39.5%	49 9.6%	46 9.0%	3.11	0.82
5	My school has potable adequate water supply	173 33.9%	180 35.2%	83 16.2%	75 14.7%	2.12	1.04
6	My school has enough recreational facilities	146 28.6%	278 54.4%	60 11.7%	27 5.3%	1.94	0.78
7	There is cordial relationship among teachers	69 13.5%	114 22.3%	220 43.1%	108 21.1%	2.72	0.95
8	The students relate well with each other	50 9.8%	69 13.5%	230 45.0%	162 31.7%	2.99	0.92
9	Rules concerning cleanliness are always maintained	73 14.3%	100 19.6%	180 35.2%	158 30.9%	2.83	1.02
10	The school has a functional school clinic	154 30.1%	164 32.1%	115 22.5%	78 15.3%	2.24	1.05
11	The school clinic adequately meets staff and student needs	143 28.0%	168 32.9%	136 26.6%	64 12.5%	2.24	0.96

Table 4:1a revealed 310 (60.7%) of the students disagreed that their school environment provides an atmosphere conducive for learning and 201(39.3%) agreed. Also, 307 (64.0%) disagreed that their school environment is free of distracting noise while 184 (36.0%) agreed. Furthermore, 311 (60.7%) disagreed that their school has sufficient classrooms while 200 (39.7%) agreed. 416 (81.4%) disagreed that their school has adequate toilet facilities while 95 (18.6%) agreed, 353(69.1%) disagreed that the school has adequate potable water supply while 158(30.7%). Also, 424 (83.0%) disagreed that their school has enough recreational facilities and 106 (17.0%) agreed. Moreover, 328 (64.2%) agreed that there is cordial relationship among teachers while 87 (35.8%) disagreed. Also, 392 (76.7%) of the students agreed they relate well with each other while 109 (23.3%) disagreed. Furthermore, 338 (66.1%) students agreed that rules concerning cleanliness are always maintained while 173 (33.9%) disagreed. 311 (60.7%) disagreed that the school clinic adequately meets staff and student needs and 200 (39.7%) agreed respectively.

Table 4.1b: Responses of teachers on the adequacy of teaching and learning environment.

S/N	Items	D	SD	A	SA	Mean	S.D
1	My school environment provides an atmosphere conducive for learning	14 42.4%	13 39.4%	3 9.1%	3 9.1%	3.12	.93
2	My school environment is free of distracting noise	14 42.4%	6 18.2%	9 27.3%	4 12.1%	2.06	1.20
3	My school has sufficient classrooms	11 33.3%	12 36.4%	6 18.2%	4 12.1%	2.88	1.11
4	My school has adequate toilet facilities	15 45.5%	4 12.1%	7 21.2%	7 21.2%	2.45	1.03
5	The school has adequate potable water supply	11 33.3%	12 36.4%	6 18.2%	4 12.1%	2.88	1.11
6	My school has enough recreational facilities	14 42.4%	6 18.2%	9 27.3%	4 12.1%	2.06	1.14
7	There is cordial relationship among teachers	5 15.2%	1 3.0%	18 54.5%	9 27.3%	2.91	1.04
8	The students relate well with each other	3 9.1%	-	18 54.5%	12 36.4%	3.15	.94
9	Rules concerning cleanliness are always maintained	2 6.1%	-	14 42.4%	17 51.5%	3.36	.90
10	The school has a functional school clinic	14 42.4%	10 30.3%	5 15.2%	4 12.1%	2.76	1.20
11	The school clinic adequately meets staff and student needs	8 24.2%	20 60.6%	3 9.1%	2 6.1%	1.97	1.29

Table 4:1b, majority of the teachers 27 (81.8%) disagreed that the school environment provides an atmosphere conducive for learning while 6 (18.2%) agreed,

20 (60.6%) disagreed that the school environment is free of distracting noise while 13 (39.4%) agreed.10 (20.3%) agreed that the school has sufficient classrooms while 23 (69.7%) disagreed, 19 (57.6%) disagreed that the school has adequate toilet facilities while 14 (42.4%) agreed,23(69.7%) disagreed that the school has adequate potable water supply while 10 (30.3%) agreed, 13 (39.4%) agreed that the school has enough recreational facilities while 20 (60.6%) disagreed ,27 (81.8%) agreed that there is cordial relationship among teachers 6 (18.2%) disagreed , 30 (90.9%) agreed that the students relate well with each other while 3(9.1%) disagreed, 31(93.9%) agreed that rules concerning cleanliness are always maintained while 2 (6.1%) disagreed, finally, 28 (84.8%) disagreed that the school clinic adequately meets staff and students needs while 5(15.2%) agreed.

From the responses of the students and teachers, the teaching and learning environment is not adequate for the teaching of Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria.

Research question 2: Are the contents of the Community Health Curriculum used in Colleges of Health Technology in Southwestern, Nigeria adequate and relevant

Table 4:2a: Responses of students on adequacy and relevance of curriculum contents

S/N	Items	D	SD	A	SA	Mean	S.D
1	The number of courses students are exposed to are adequate	32 6.3%	28 5.5%	247 48.3%	204 39.9%	3.22	.81
2	The content is overloaded	143 28.0%	168 32.9%	136 26.6%	64 12.5%	2.24	1.06
3	The content of each course work is adequate	36 7.0%	54 10.6%	254 49.7%	167 32.7%	3.08	.84
4	Practical components are adequately Covered	50 9.8%	69 13.5%	230 45.0%	162 31.7%	2.99	1.05
5	The content takes care of professional needs after graduation	28 5.5%	65 12.7%	276 54.0%	142 27.8%	3.04	.79
6	The content is lacking relevant concepts	143 28.0%	168 32.9%	136 26.6%	64 12.5%	2.24	1.00
7	The content exposes students to necessary skills for community health practice	34 6.7%	44 8.6%	222 43.4%	211 41.3%	3.19	0.85
8	The contents are necessary for students needs to meet grass root community health	33 6.5%	43 8.4%	179 35.0%	256 50.1%	3.29	0.87
9	The contents enable students acquisition of practical and professional skills	49 9.6%	46 9.0%	214 41.9%	202 39.5%	3.11	0.93

Table 4:2a shows that majority 451 (88.2%) students agreed that the number of courses students are exposed to are adequate while 60 (11.8%) disagreed, 311 (60.9%) disagreed that the content of the curriculum is overloaded while 200 (39.1%) agreed. Furthermore, 421 (82.4%) agreed that the content of each course work is adequate while 90 (17.6%) disagreed, 392 (76.7%) agreed that the practical components are adequately covered, while119 (23.3%) disagreed, 418 (81.8%) agreed that the content takes care of professional needs after graduation while 93 (28.2%) disagreed, 311 (60.9%) disagreed that the curriculum content is lacking relevant

concepts while 200 (39.1%) agreed. Also, 433 (84.7%) agreed that the content exposes students to necessary skills for community health practice while 78 (15.3%) disagreed. Finally, 435 (85.1%) agreed that the curriculum contents are necessary for students needs to meet grassroot community health and 76 (14.9%) disagreed, 416 (81.4%) agreed that the curriculum contents enable student's acquisition of practical and professional skills and 95 (18.6%) disagreed.

Table 4.2b Response of teachers on adequacy and relevance of curriculum contents

S/N	Items	D	SD	A	SA	Mean	S.D
1	The number of courses students are exposed to are adequate	9 27.3%	1 3.0%	9 27.3%	14 42.4%	2.06	.89
2	The content is overloaded	8 24.2%	20 60.6%	3 9.1%	2 6.1%	1.97	.77
3	The content of each course work is adequate	2 6.1%	2 6.1%	10 30.3%	19 57.6%	3.39	.86
4	Practical components are adequately Covered	-	-	9 27.3%	24 72.7%	3.73	.45
5	The content takes care of professional needs after graduation	1 3.0%	-	17 51.5%	15 45.5%	3.39	.66
6	The content is lacking relevant concepts	-	-	13 39.4%	20 60.6%	3.61	.50
7	The content enables student to master the basic skills associate with the job needs	1 3.0%	-	17 51.5%	15 45.5%	3.36	.79
8	The contents are necessary for students needs to meet grass root community health	1 3.0%	-	17 51.5%	15 45.5%	3.36	.78
9	The contents enable students acquisition of practical and professional skills	-	-	16 48.5%	17 51.5%	3.64	.78

Table 4:2b revealed 23 (69.7%) agreed that the number of courses students are exposed to are adequate while 10 (30.3%) disagreed, 28(84.9%) disagreed that the content is overloaded while 5 (15.2%), 29 (87.9%) agreed that the content of each course work is adequate while 4 (12.2%) disagreed, all the teachers 33 (100%) agreed

that the practical components are adequately covered, 32(97%) agreed that the content takes care of professional needs after graduation while 1 (3.0%) , 33 (100%) agreed the contents enable students acquisition of practical and professional skills and that the content is lacking relevant concepts respectively, 32 (97.0%) agreed that the content enables student to master the basic skills associate with the job needs while 1 (3.0%) disagreed, lastly 32 (97.0%) agreed that the contents are necessary for students needs to meet grass root community health while 1 (3.0%) disagreed.

As deduced from the above illustration, both students and teachers agree that the contents of the Community Health Curriculum are adequate and also relevant in Colleges of Health Technology Southwestern, Nigeria.

Research question 3 Are the curriculum objectives of the Community Health Curriculum in Colleges of Health Technology Southwestern, Nigeria adequate and relevant?

Table 4:3a: Responses of students on adequacy and relevance of curriculum objectives

S/N	Items	D	SD	A	SA	Mean	S.D
1	The curriculum has clearly stated objectives	16 3.1%	38 7.4%	242 47.4%	215 42.1%	3.28	0.74
2	The objectives are adequate to meet learners needs	45 8.8%	29 5.7%	237 46.4%	200 39.1%	3.16	0.88
3	The objectives of the curriculum are not achievable within the period of the programme	132 25.8%	102 20.0%	155 30.3%	122 23.9%	2.52	1.12
4	The objectives are not in line with the job needs of the students after training	154 30.1%	164 32.1%	111 21.7%	82 16.0%	2.24	1.05
5	The objectives are not adequate to meet the learners basic community health knowledge and practical skills	173 33.9%	180 35.2%	83 16.2%	75 14.7%	2.12	1.04
6	The objectives are meaningful and significant as it promotes acquisition of academic and professional skills	22 4.3%	55 10.8%	195 38.2%	239 46.8%	3.27	0.82
7	The objectives are relevant to the needs of the community at the grassroots	40 7.8%	25 4.9%	214 41.9%	232 45.4%	3.25	0.87
8	The objectives enable students acquire adequate practical skills to work after training	80 15.7%	77 15.1%	182 35.6%	172 33.7%	2.87	1.05

Table 4:3 shows that majority 457 (89.5%) of the students agreed that the curriculum has clearly stated objectives while 54 (10.5%) disagreed. Also, 437 (85.5%) agreed that the objectives are adequate to meet learners needs while 74 (14.5%) disagreed. 277 (54.2%) agreed that the objectives of the curriculum are not achievable within the period of the programme while 234 (45.8%) disagreed. Furthermore, 318 (62.2%) disagreed that the objectives are not in line with the job

needs of the students after training while 193 (37.7%) agreed. Finally, 353 (69.1%) disagreed that the objectives are not adequate to meet the learners basic community health knowledge and practical skills while 158 (30.9%) agreed and also, 434 (69.3%) agreed that the objectives of the curriculum are meaningful and significant as it promotes acquisition of academic and professional skills while 77 (30.8%) disagreed. 446 (87.3%) of the students agreed that the objectives are relevant to the needs of the community at the grassroots while 65 (12.7%) disagreed and finally 354 (69.3%) agreed that the objectives enable students acquire adequate practical skills to work after training while 157(30.8%) disagreed.   .

Table 4.3b Response of teachers on adequacy and relevance of curriculum objectives

S/N	Items	D	SD	A	SA	Mean	S.D
1	The curriculum has clearly stated objectives	9 27.3%	1 3.0%	9 27.3%	14 42.4%	2.06	.83
2	The objectives are adequate to meet learners needs	2 6.1%	3 9.1%	12 36.4%	16 48.5%	3.27	.88
3	The objectives of the curriculum are not achievable within the period of the programme	3 9.1%	3 9.1%	14 42.4%	13 39.4%	3.12	.93
4	The objectives are not in line with the job needs of the students after training	15 45.5%	9 27.3%	5 15.2%	4 12.1%	2.76	1.20
5	The objectives are not adequate to meet the learners basic community health knowledge and practical skills	11 33.3%	12 36.4%	6 18.2%	4 12.1%	2.88	1.11
6	The objectives are meaningful and significant as it promotes acquisition of academic and professional skills	7 21.2%	7 21.2%	15 45.5%	4 12.1%	2.45	1.03
7	The objectives are relevant to the needs of the community at the grassroots	9 27.3%	4 12.1%	14 42.4%	6 18.2%	2.06	1.14
8	The objectives enable students acquire adequate practical skills to work after training	9 27.3%	1 3.0%	10 30.3%	13 39.4%	2.91	1.04

Table 4.3b revealed, majority of the teachers 23 (69.7%) agreed that the curriculum has clearly stated objectives while 10 (30.3%) disagreed. 28 (84.9%) agreed that the objectives are adequate to meet learners needs, while 5 (9.2%),27 (81.8%) agreed that the objectives of the curriculum are not achievable within the period of the programme while 6 (18.2%) disagreed, 24 (72.8%) agreed that the objectives are not in line with the job needs of the students after training while 9 (27.3%) disagreed , 10 (30.3%)agreed that the objectives are not adequate in meeting learners basic community health knowledge and practical skills while 23(69.7%)

disagreed , Furthermore,19 (57.6%) agreed that the objectives are meaningful and significant as it promotes acquisition of academic and professional skills while 14 (42.3%) disagreed, 20(60.6%) agreed that the objectives are relevant to the needs of the community at the grassroots while 13(39.4%) disagreed and finally 23 (69.7%) agreed that the objectives enable students acquire adequate practical skills to work after training while 10 (30.3%) disagreed.

Students and teachers view the objectives of the Community Health Curriculum in Colleges of Health Technology Southwestern, Nigeria as adequate and also relevant.

Research question 4: What is the attitude of students to learning in Colleges of Health Technology, Southwestern Nigeria?

Table4:4 Responses of teachers on the attitude of students to learning

S/N	Items	Never	Sometimes	Often	Always	Mean	S.D
1	Students are regular in classes	1 3.0%	6 18.2%	8 24.2%	18 54.5%	3.36	.90
2	Students are punctual	1 3.0%	3 9.1%	14 42.4%	15 45.5%	2.67	1.29
3	Students make personal readings on topics taught in class	5 15.2%	8 24.2%	11 33.3%	9 27.3%	2.12	1.02
4	Student participate actively in class work	1 3.0%	6 18.2%	15 45.5%	11 33.3%	2.03	.85
5	Students consult teacher on academic problems	1 3.0%	12 36.4%	8 24.2%	12 36.4%	2.00	.90
	Weighted average 2.4						

Table 4:4 revealed, my students are regular to classes (mean=3.36,) ranked highest by the mean score rating and was followed by My students are punctual (mean=2.67), My students research further into topics taught in class (mean=2.12), My student participate actively in class work, ask intelligent questions (mean=2.03) and lastly by My students consult me for their academic challenges (mean=2.00). In conclusion, since only two items out of five items met the average mean score of 2.4 and above thus it can be concluded that students have a negative attitude to learning.

Research question 5: What is the attitude of teachers to teaching in Colleges of Health Technology Southwestern, Nigeria?

Table 4:5 Responses of students on the attitude of teachers to teaching

S/N	Items	Never	Sometimes	Often	Always	Mean	S.D
1	Take a positive attitude towards their jobs	27 5.2%	103 20.2%	115 22.5%	266 52.1%	3.21	0.94
2	Attend classes to teach regularly and promptly	26 5.1%	100 19.6%	130 25.4%	255 49.9%	3.20	0.93
3	Give regular assignments to students	44 8.6%	122 23.9%	116 22.7%	229 44.8%	3.04	1.02
4	Mark, guide and return assignments to students on time	122 23.9%	133 26.0%	112 21.9%	144 28.2%	3.04	1.02
5	Insist on students making corrections	80 15.7%	164 32.1%	101 19.8%	166 32.5%	2.54	1.14
6	Delivers lesson in very interesting manner	50 9.8%	120 23.5%	103 20.2%	238 46.6%	2.69	1.09
7	Uses lesson period to talk about personal problems association matters and other irrelevances	269 52.6%	124 24.3%	59 11.5%	59 11.5%	3.04	1.05
8	Reads from the handout only when teaching	144 28.2%	168 32.9%	74 14.4%	125 24.5%	1.82	1.04
9	Allow students to contribute during teaching/learning process	49 9.6%	89 17.4%	88 17.2%	285 55.8%	2.35	1.14
10	Always insist on quality works from students	52 10.2%	60 11.7%	121 23.7%	278 54.4%	3.19	1.04
11	Encourages traits such as punctuality, neatness, good human relation etc in students	28 5.5%	58 11.4%	70 13.7%	355 69.5%	3.22	1.01
12	Draws example familiar to student while teaching	48 9.4%	89 17.4%	112 21.9%	262 51.3%	3.47	0.90
	Weighted average 2.9						

Table 4:5 revealed draws example familiar to students while teaching has the highest mean score of 3.47 followed encourage traits such as punctuality, neatness, good human relation and with mean score of 3.22 followed by teachers take a positive attitude towards their jobs with mean score of 3.21, then attend classes to teach regularly with mean score of 3.20. Always insist on quality works from students has a mean score of 3.19, use lesson period to talk about personal problems, give regular assignments to students and mark, guide and return assignments to students on time all have a mean score of 3.04, delivers lesson in very interesting manner has a mean score of 2.69, teachers insists on students making corrections mean score of 2.54, allows students to contribute during teaching/learning process has a mean score of

2.35, and teachers reads from the handout only when teaching has a mean score of 1.82.

Eight items met the mean score of 2.9 and above as such it was observed that the teachers teaching in Colleges of Health Technology South-West Nigeria have a positive attitude towards their jobs and they also encourage students to participate actively during teaching/learning process thereby preparing them for a brighter future.

Research question 6: Are the assessment technique, teaching methods and instructional materials, as perceived by the teachers appropriate for the teaching of community health curriculum in Colleges of Health Technology, Southwestern, Nigeria?

Table 4:6a Responses of teachers on assessment techniques

S/N	Items	D	SD	A	SA	Mean	S.D
1	The number of examinations students write are adequate	-	-	13 39.4%	20 60.6%	3.61	.50
2	The number of continuous assessments are adequate	1 3.0%	-	17 51.5%	15 45.5%	3.36	.79
3	The evaluations ensures adequate measure of students learning	1 3.0%	-	17 51.5%	15 45.5%	3.36	.78
4	The evaluations reflects the contents taught	-	-	16 48.5%	17 51.6%	3.64	.78
5	The evaluations are above learners' level	9 27.3%	14 42.4%	9 27.3%	1 3.0%	2.06	.83
6	The evaluations adequately cover the basic community knowledge and practical skills	2 6.1%	3 9.1%	12 36.4%	16 48.5%	3.27	.88

Table 4:6a shows all the teachers 33(100%) agreed that the number of examinations students write are adequate and the evaluations reflects the contents taught respectively, 32 (97%) of the teachers agreed that the number of continuous assessments are adequate and the evaluations ensures adequate measure of students learning while 1 (3%) disagreed respectively, furthermore, 28 (84.9%) agreed that the evaluations adequately cover the basic community knowledge and practical skills while 5 (15.1%) disagreed and finally 10 (30.3%) agreed that the evaluations are above learners' level while 23 (69.7%) disagreed. In conclusion, it can be deduced

that majority of the teachers agreed the evaluation technique is adequate and appropriate.

Table 4:6b Responses of teachers on teaching methods used in teaching

S/N		Never	Sometimes	Often	Always	Mean	S.D
1	Questions	-	2 6.1%	13 39.4%	18 54.5%	3.48	.62
2	Role play	3 9.3%	12 36.4%	7 21.2%	11 33.3%	2.73	1.15
3	Group Work	3 9.1%	10 30.3%	7 21.2%	13 39.4%	2.82	1.24
4	Lecturing	-	1 3.0%	7 21.2%	25 75.8%	3.73	.52
5	Discussion	2 6.1%	1 3.0%	16 48.5%	14 42.4%	3.21	.99
6	Presentation	4 12.1%	7 21.2%	12 36.4%	10 30.3%	2.73	1.26
7	Demonstration	3 9.1%	7 21.2%	11 33.3%	12 36.4%	2.88	1.19
8	Field trips/excursions	4 12.1%	19 57.6%	6 18.2%	4 12.1%	2.21	1.02
9	Project method	7 21.2%	13 39.4%	5 15.2%	8 24.2%	2.33	1.24
10	Analogy/simulations	6 18.2%	13 39.4%	5 15.2%	9 27.3%	2.42	1.25
11	Guided discovery	10 30.3%	11 33.3%	8 24.2%	4 12.1%	2.03	1.24
12	Textbooks and handouts	3 9.1%	-	9 27.3%	21 63.6%	3.39	1.09
	Weighted average 2.8						

Table 4:6b shows that majority of the teachers responded that lecturing (mean=3.73) was ranked highest as 25 (75.8%) responded as "always" this was followed by Questions (mean=3.48) where 18 (54.5%) responded as "always". Textbooks and handouts (mean=3.39) as 21 (63.6%) responded as "always". And then discussion (mean=3.21) ranked next as 16 (48.5%) responded as "often", followed by demonstration (mean=2.88) as 12 (36.4%) responded as "always", then group work with (mean=2.82) as 13 (39.4%) responded as "always", role play (mean=2.73) as 12 (36.4%) responded as "sometimes", presentation has a mean score of 2.73 as 12 (36.4%) responded as "often" , analogy/simulations (mean=2.42) 13 (39.4%)

responded as "sometimes", project method (mean=2.33)as 13 (39.4%) responded as "sometimes", Field trips/excursions (mean=2.21) as 19 (57.6%) responded as "sometimes" lastly by guided discovery (mean=2.03) as 11 (33.3%) responded as "sometimes".

Only six out of the twelve teaching methods met the average mean score of 2.8 and they include questioning, group work, lecturing, discussion and finally textbooks and handouts. Secondly teaching methods such as guided discovery, analogy, role play, project method and field trips which are modern and more learner centred methods of teaching are not well utilised as they did not meet the average mean score while old methods and teacher centered like lecturing, textbooks and handouts are the major methods used in teaching. Though varied methods were used, but they are not appropriate for learner centred and modern learning.

Table 4:6c Responses of teachers on instructional materials

S/N	Items	Completely insufficient	Not sufficient	Sufficient	Quite sufficient	Mean	S.D
1	Classrooms large enough for at least 50 students	16 48.5%	6 18.2%	5 15.2%	6 18.2%	2.67	1.14
2	Blackboard or Tempo board	1 3.0%	3 9.1%	11 33.3%	18 54.6%	3.36	.90
3	Current Charts	6 18.2%	13 39.4%	2 6.1%	12 36.4%	2.88	1.08
4	Library with at least 5000 current and relevant journals, textbooks	4 12.1%	15 45.5%	7 21.2%	7 21.3%	2.55	1.15
5	Recommended Textbooks	8 24.2%	10 30.3%	2 6.1%	13 39.4%	2.82	1.01
6	Well equipped practical demonstration room for at least 50 students	1 3.0%	4 12.1%	12 36.4%	16 48.5%	3.30	.81
7	Enough computers	5 15.2%	13 39.4%	9 27.3%	6 18.2%	2.94	1.14
8	Field work e.g. clinical posting	12 36.4%	17 51.5%	2 6.1%	2 6.1%	3.27	1.04
9	Simulations (models, life size dolls)	2 6.1%	4 12.1%	21 63.6%	6 18.2%	2.91	.84
10	Electricity facilities with generating set	12 36.4%	8 24.2%	4 12.1%	9 27.3%	2.73	.98
11	Real objects	- 	3 9.1%	14 42.4%	16 48.5%	3.39	.66
12	Laboratory with adequate facilities for at least 50 students	12 36.4%	11 33.3%	3 9.1%	7 21.2%	2.91	1.04
13	Functional internet services	8 24.2%	17 51.5%	4 12.1%	4 12.1%	2.15	1.00
14	Health centre well equipped for practical	10 30.3%	16 48.5%	3 9.1%	4 12.1%	3.18	.98

Table 4:6c revealed that real objects with (mean=3.39) was ranked highest by the mean scores as 16(48.5%) responded as "quite sufficient", followed by blackboard or tempo board (mean=3.36) as 18(54.5%) responded as "quite sufficient", Well equipped practical demonstration room (mean=3.30) as 16(48.5%) responded as "quite sufficient", Field work e.g. clinical posting (mean=3.27) as 17(51.5%) responded as "not sufficient", Health centre well equipped for practical had a mean

score of (mean=3.18) as 16 (48.5%) responded as "not sufficient", enough computers scored (mean=2.94) as 13 (39.4%) responded as not sufficient, simulations had a mean score of (mean=2.91) as 21 (63.6%) responded as "sufficient", Laboratory with adequate facilities (mean=2.91) as 12 (36.4%) responded as "completely insufficient", current charts with (mean=2.88) as 13 (39.4%) responded as "not sufficient", recommended textbooks (mean=2.82) as 13 (39.4%) responded as "quite sufficient", Electricity facilities with generating set (mean=2.73) as 12 (36.4%) responded as "completely insufficient", Classrooms large enough for at least 50 students (mean=2.67) as 16 (48.5%) responded as "completely insufficient", Library with at least 5000 journals, textbooks (mean=2.55) as 15 (45.5%) responded as "not sufficient" and lastly by functional internet services (mean=2.15) as 17(51.5%) responded as "not sufficient"

Only four instructional materials were sufficient for the implementation of community health curriculum and they include blackboard 29 (87.9%), well equipped practical demonstration room 28 (84.9%), simulations 27(81.8%) and real object 30 (90.9%). Majority of the instructional materials were not sufficient for the implementation of community health curriculum including basic and fundamental materials like classrooms, charts, computer and internet, library and textbooks, laboratory, field work e.g clinical postings and health centre well equipped for practicals.

According to the teachers, while the evaluation technique was adequate and appropriate, the teaching methods and the instructional materials were not sufficient and therefore not appropriate for the teaching of community health curriculum.

Research question 7: Are the instructional materials, assessment techniques and teaching methods as perceived by the students appropriate for the teaching of community health curriculum in Colleges of Health Technology, Southwestern, Nigeria?

Table 4.7a Responses of students on assessment techniques

S/N	Items	D	SD	A	SA	Mean	S.D
1	The number of examinations students write are adequate	47 9.2%	57 11.2%	230 45.0%	177 34.6%	3.05	.91
2	The number of continuous assessments are adequate	53 10.4%	67 13.1%	241 47.2%	150 29.4%	2.95	.92
3	The evaluations ensures adequate measure of students learning	63 12.3%	70 13.7%	240 47.0%	138 27.0%	2.89	.94
4	The evaluations reflects the contents taught	45 8.8%	60 11.7%	250 48.9%	156 30.5%	3.01	.88
5	The evaluations are above learners' level	179 35.0%	146 28.6%	98 19.2%	88 17.2%	2.19	1.09
6	The evaluations adequately cover the basic community knowledge and practical skills	87 17.0%	50 9.8%	225 44.0%	149 29.2%	2.85	1.03

Table 4:7a revealed 407 (79.6%) of the students agreed that the number of examinations students write are adequate while 104 (20.4%) disagreed, 406 (79.4%) agreed that the evaluations reflects the contents taught 105 (20.5%) disagreed, 391 (76.6%) agreed that the number of continuous assessments are adequate while 120 (23.5%) disagreed. Furthermore, 378 (74%) agreed that the evaluations ensures adequate measure of students learning while 133 (26.0%) disagreed, 406 (79.4%) agreed that the evaluation reflect the contents taught while 105 (20.5%) disagreed, 344 (73%) agreed that the evaluations adequately cover the basic community knowledge and practical skills while 137 (26.8%) disagreed and lastly 186 (36.4%) agreed that the evaluations are above learners' level while 325(63.6%) disagreed. In conclusion, it can be deduced that majority of the students agree that the evaluation technique is adequate and appropriate.

4.7b Responses of students on teaching methods

S/N	Items	Never	Sometimes	often	Always	Mean	S.D
1	Questions	22 4.3%	62 12.1%	96 18.8%	331 64.8%	3.15	1.02
2	Role play	178 34.8%	142 27.8%	120 23.5%	71 13.9%	2.63	1.11
3	Group work	65 12.7%	139 27.2%	119 23.3%	188 36.8%	2.79	1.06
4	Lecturing	32 6.3%	30 5.9%	76 14.9%	373 73.0%	2.89	1.02
5	Discussion	66 12.9%	95 18.6%	108 21.1%	242 47.4%	3.55	.86
6	Presentation	63 12.3%	163 31.9%	105 20.5%	180 35.2%	3.03	1.09
7	Demonstration	44 8.6%	167 32.7%	103 20.2%	198 38.6%	2.38	1.06
8	Field trips/excursions	45 8.8%	86 16.8%	94 18.4%	286 56.0%	2.27	1.10
19	Project method	102 20.0%	136 26.6%	123 24.1%	150 29.4%	2.02	1.03
10	Analogy/simulations	117 22.9%	189 37.0%	97 19.0%	108 21.1%	3.44	.87
11	Guided discoveries	169 33.1%	125 24.5%	126 24.7%	91 17.8%	2.16	1.06
12	Textbooks and handouts	209 40.9%	142 27.8%	102 20.0%	58 11.4%	2.84	1.06
	Weighted average 2.8						

Table 4:7b revealed that discussion method with (mean=3.55), was rated highest by the mean scores as 242 (47.4%) responded as "always", followed by analogy/simulations (mean=3.44) as 189 (37.0%) responded as "sometimes", Questions (mean=3.15) as 331 (64.8%) responded as "always", Presentation (mean=3.03) as 180 (35.2%) responded as "always", Lecturing (mean=2.89) as 373 (73.0%) responded as "always", textbooks and handouts (mean=2.84) as 209 (40.9%) responded as "never", Group work (mean=2.79) as 188 (36.8%) responded as "always", Role play

(mean=2.63) as 178 (34.8%) responded as "never", Demonstration (mean=2.38) as 198 (38.6%) responded as "always", Field trips/excursions (mean=2.27) as 286 (56.0%) responded as "always", Guided discoveries (mean=2.16) as 169 (33.1%) responded as "never", and lastly by Project method (mean=2.02) as 150 (29.4%) responded as "always".

Though seven items met the average mean score of 2.8, teaching methods such as guided discovery, demonstration, role play, project methods and field trips/excursions which are modern appropriate teaching methods that will enhance students' learning and acquisition of skills are not well utilised.

Table 4.7c: Responses of students on instructional materials

S/N	Items	Completely Insufficient	Not Sufficient	Sufficient	Quite sufficient	Mean	S.D
1	Classrooms large enough for at least 50 students	154 30.1%	135 26.4%	130 25.4%	92 18.0%	2.20	1.10
2	Blackboard or Tempo board	93 18.2%	90 17.6%	215 42.1%	113 22.1%	2.70	1.01
3	Current charts	164 32.1%	138 27.0%	133 26.0%	76 14.9%	2.69	1.01
4	Library with at least 5000 current and relevant journals, textbooks	174 34.1%	151 29.5%	94 18.4%	92 18.0%	2.60	2.20
5	Recommended textbooks	174 34.1%	151 29.5%	94 18.4%	92 18.0%	2.60	2.20
6	Well equipped practical demonstration room for at least 50 students	175 34.2%	172 33.7%	89 17.4%	75 14.7%	2.49	1.06
7	Enough computers	175 34.2%	172 33.7%	89 17.4%	75 14.7%	2.36	1.06
8	Field work e.g. clinical posting	123 24.1%	114 22.3%	175 34.2%	99 19.4%	2.24	1.06
9	Simulations (models, life size dolls)	170 33.3%	143 28.0%	121 23.7%	77 15.1%	2.21	1.06
10	Electricity facilities with generating set	170 33.3%	143 28.0%	121 23.7%	77 15.1%	2.21	1.06
11	Real objects	89 17.4%	95 18.6%	207 40.5%	120 23.5%	3.22	1.02
12	Functional internet services	154 30.1%	135 26.4%	130 25.4%	92 18.0%	2.20	1.10
13	Laboratory with adequate facilities for at least 50 students	144 28.2%	126 24.7%	155 30.3%	86 16.8%	2.13	1.08
14	Health centre well equipped for practicals	116 22.7%	83 16.2%	202 39.5%	110 21.5%	2.13	1.04

Table 4:7c revealed that real objects had the highest (mean =3.22) as 207(40.5%) responded as "sufficient", blackboard or tempo board (mean =2.70) as 215 (42.1%) responded as "sufficient" , Current charts (mean =2.69)164 (32.1%) responded as " completely insufficient", recommended textbooks (mean =2.60) as 174 (34.1%) responded as " completely insufficient", Library with at least 5000 journals, textbooks (mean =2.60) as 174 (34.1%) responded as " completely insufficient", well

equipped practical demonstration room (mean =2.49)as 175 (34.2%) responded as " completely insufficient" ,Enough computers (mean =2.36)as 175 (34.2%) responded as " completely insufficient" , field work e.g. clinical postings (mean =2.24)as 175 (34.2%) responded as " sufficient", simulations (mean =2.21)as 170 (33.3%) responded as " completely insufficient", Electricity facilities with generating set (mean =2.21)as 170 (33.3%) responded as " completely insufficient",

Furthermore, for Functional internet (mean =2.20) as 154 (30.1%) responded as " completely insufficient", Classrooms large enough for at least 50 students (mean =2.20) as 154 (30.1%) responded as " completely insufficient", Laboratory with adequate facilities (mean =2.13)as 144 (28.2%) responded as " completely insufficient" and lastly by Health centre well equipped for practicals (mean =2.13)as 202 (39.5%) responded as " sufficient". In conclusion, only three instruction materials were sufficient for the implementation of community health curriculum and they include blackboard 328 (64.2%), real objects 327 (64.0%) and Health centre well equipped for practicals 312 (61.0%) others were not sufficient for the teaching of community health curriculum.

According to the students, the evaluation technique was adequate and appropriate, the teaching methods though varied but not modern and learner centred methods therefore not appropriate while the instructional materials were not sufficient and therefore not appropriate for the teaching of community health curriculum.

Research question 8: Is the time allotted to teaching of Community Health Curriculum contents in Colleges of Health Technology Southwestern, Nigeria adequate?

Table 4:8a Responses of students on time allotted to teaching

S/N	Items	D	SD	A	SA	Mean	S.D
1	The time allocated to courses are inadequate	134 26.2%	143 28.0%	157 31.1%	75 14.7%	2.34	1.02
2	There is need for more hours to sufficiently cover the curriculum	151 29.5%	180 35.2%	118 23.1%	62 12.1%	2.18	.99
3	My teacher though regular in class always rush to complete courses	133 26.0%	137 26.8%	145 28.4%	96 18.8%	2.40	1.07
4	The courses are adequately covered during the programme	121 23.7%	126 24.7%	160 31.3%	104 20.4%	2.48	1.06

Table 4.8a revealed majority of the students 277 (54.2%) disagreed the time allocated to courses are inadequate while 232 (45.8%) agreed, 180 (35.2%) agreed that there is need for more hours to sufficiently cover the curriculum while 331 (64.7%) disagreed, 241(47.2%) agreed that though regular in class their teacher always have to rush to complete courses while 270(52.8%) disagreed and lastly 264 (51.7%) agreed that the courses are adequately covered during the programme, while 247 (48.4%) disagreed.

Table 4.8b: Responses of teachers on time allotted to teaching.

S/N	Items	D	SD	A	SA	Mean	S.D
1	The time allocated to courses are inadequate	9 27.3%	13 39.4%	11 33.3%	-	2.03	.85
2	There is need for more hours to sufficiently cover the curriculum	11 33.3%	8 24.2%	12 36.4%	2 6.1%	2.12	1.02
3	Though regular in class I always rush to complete courses	10 30.3%	13 39.4%	9 27.3%	1 3.0%	2.00	.90
4	The courses are adequately covered during the programme	5 15.2%	5 15.2%	10 30.0%	13 39.4%	2.91	1.16

Table 4.8b revealed majority of the teachers 22 (66.7%) disagreed that the time allocated to courses are inadequate while 11 (33.3%) agreed, 19 (57.5%) disagreed that there is need for more hours to sufficiently cover the curriculum 14 (42.5%) agreed, 23(69.7%) disagreed that though regular in class they always rush to complete courses while 10(30.3%) agreed and finally 23(69.4%) agreed that the courses are adequately covered during the programme while 10(30.4%) disagreed. In conclusion, from the responses of the students and teachers it can be deduced that the time allotted to teaching of Community Health Curriculum contents is adequate.

Research question9: What are the challenges encountered by the administrators and teachers in the implementation of the Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria

Table 4:9: Response of teachers on challenges encountered

S/N	Items	YES	NO
1	Lack of motivation of tutors	21 63.6%	12 36.4%
2	Students' indiscipline	17 51.5%	16 48.5%
3	Inadequate teaching materials	17 51.5%	16 48.5%
4	inadequate funding	21 63.6%	12 36.4%
5	Inadequate in-service education	9 27.3%	24 72.7%
6	Inadequate staff	19 57.6%	14 42.4%
7	Tutor work overload	23 69.7%	10 30.3%
8	Insufficient materials for practical	17 51.5%	16 48.5%

Table 4:9 revealed for Lack of motivation of tutors; 12 (36.4%) indicated No and 21 (63.6%) indicated Yes, for Students' indiscipline; 16 (48.5%) indicated No and 17 (51.5%) indicated Yes, for Inadequate teaching materials; 17 (51.5%) indicated yes and 16 (48.5%) indicated no, for inadequate funding; 21 (63.6%) indicated Yes and 12 (36.4%) indicated No, for inadequate in service education; 9 (27.3%) indicated Yes and 24 (72.7%) indicated No, for Inadequate staff; 14 (42.4%) indicated No and 19 (57.6%) indicated Yes, for Programme overload; 23 (69.7%) indicated Yes and 10 (30.3%) indicated No and finally for Insufficient materials for practical; 17 (51.5%) indicated Yes and 16 (48.5%) indicated No. In conclusion, the challenges encountered by teachers in the implementation of the Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria are lack of motivation, student's indiscipline, inadequate teaching materials, inadequate funds, inadequate staff, programme overload, insufficient materials.

Research Question 10: What are the students' competence in basic community health knowledge and basic practical skills in Colleges of Health Technology in Southwestern Nigeria?

Table 4:10*: Students' competence in basic community health knowledge and basic practical skills*

Dependent Variable	Colleges	Mean	Std.Error
Students' competence in basic community health knowledge	Ilesa	20.886	.472
	Ilese	21.547	.430
	Lagos	21.279	.380
	Ijero	17.000	.990
	Akure	18.886	.472
	Oyo	18.278	.522
Practical skills	Ilesa	20.727	.522
	Ilese	20.566	.476
	Lagos	20.838	.420
	Ijero	18.200	1.095
	Akure	17.705	.522
	Oyo	18.525	.577

Table 4: 10 revealed the students' competence in basic community health knowledge are as follows: College of Health Technology Ilese, Ogun State had the highest mean score of 21.547 followed by College of Health Technology Yaba, Lagos State with a mean score of 21.279, then College of Health Technology Ilesa, Osun State with a mean score of 20.886, followed by College of Health Technology Akure, Ondo state with a mean score of 18.886, then College of Health Technology Eleyele, Ibadan, Oyo state with a mean score 18.278, and finally College of Health Technology Ijero- Ekiti, Ekiti State a mean score of 17.000.

While the students' competence in basic practical skills tests are as follows: College of Health Technology Yaba, Lagos State had the highest mean score of 20.838,followed by College of Health Technology Ilesa, Osun State with a mean score of 20.727, then College of Health Technology Ilese, Ogun state with the mean score of 20.566, then College of Health Technology Eleyele, Ibadan, Oyo State with a mean score of 18.525, then College of Health Technology Ijero-Ekiti Ekiti State with a mean score of 18.200 , and finally College of Health Technology Akure, Ondo State with a mean score of 17.705.

College of Health Technology Ilese, Ogun State had the highest mean score in basic community health knowledge while Colleges of Health Technology Yaba, Lagos State, Ilesa, Osun State and Ilese, Ogun state had the highest mean score in basic practical skills. College of Health Technology Ijero-Ekiti Ekiti State and College of Heath Technology Akure, Ondo State had the lowest mean score in basic community health knowledge and basic practical skills acquisition respectively.

Hypothesis 1: There will be no significant difference in students' competence in basic community health knowledge and practical skills among students in Colleges of Health Technology in Southwestern, Nigeria.

Table 4:11a MANOVA showing the significant difference in students' competence in basic community health knowledge and practical skills based on Colleges

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Corrected model	Students' competence in basic community health knowledge	504.487	5	101.297	10.333	.000	.172
	Practical skills	419.286	5	83.857	6.996	.000	.123
Colleges of health technology	Students' competence in basic community health knowledge	506.487	5	101.297	10.333	.000	.172
							.123
	Practical skills	419.286	5	83.857	6.993	.000	
Error	Students' competence in basic community health knowledge	2440.909	249	9.803			
		2984.698					
	Practical skills		249	11.987			
Corrected Total	Students' competence in basic community health knowledge	2947.396	254				
	Practical skills	3403.984	254				

Table 4:11a above showed that there were significant difference in students' competence in basic community health knowledge (F (5,249) = 10.333, p<.05) and practical skills (F (5,249) = 6.993, p<.05) based on Colleges. Null hypothesis was rejected.

Table 4:11b Estimated Marginal Mean scores of students' competence in basic
community health knowledge and practical skills

Dependent Variable	Colleges	Mean	Std.Error
Students' competence in basic community health knowledge	Ilesa	20.886	.472
	Ilese	21.547	.430
	Lagos	21.279	.380
	Ijero	17.000	.990
	Akure	18.886	.472
	Oyo	18.278	.522
Practical skills	Ilesa	20.727	.522
	Ilese	20.566	.476
	Lagos	20.838	.420
	Ijero	18.200	1.095
	Akure	17.705	.522
	Oyo	18.525	.577

Table 4:11b above shows the Estimated Marginal Mean scores of students'
competence in basic community health knowledge and practical skills. College of
Health Technology Ilese, Ogun State had the highest mean score in basic community
health knowledge while College of Health Technology Yaba, Lagos State and Ilesa,
Osun State and Ilese, Ogun state had the highest mean score in basic practical skills
acquisition.

Table 4:11c: Scheffe Post-Hoc Pairwise comparison on students' competence in basic
health knowledge and basic practical skills among students

Dependent variables	Colleges	Colleges	Mean values variance	Std.Error	Sig.
Students' competence in basic community health knowledge	Ilese	Ijero	4.547	.5302	.027
		Akure	2.661	.5373	.000
		Oyo	3.269	.5269	.005
Students' competence in basic practical skills	Ilesa	Akure	3.022	.5892	.002
	Ilese	Akure	2.861	.5628	.000
	Lagos	Akure	3.133	.5839	.042

Table 4:11c above showed that for basic community health knowledge there were pair significant differences between College of Health Technology Ilese Ogun state and College of Health Technology Ijero- Ekiti, Ekiti state. College of Health Technology Ilese, Ogun state and College of Health Technology Akure, Ondo state and College of Health Technology Ilese, Ogun state and College of Health Technology, Eleyele, Oyo state and College of Health Technology ijero- Ekiti, Ekiti state, and College of Health Technology Ilese, Ogun state.

While for basic practical skills there were pair significant differences between College of Health Technology Ilesa, Osun state and College of Health Technology Akure, Ondo state; College of Health Technology Ilese, Ogun state and College of Health Technology Akure, Ondo state and College of Health Technology Yaba, Lagos and College of Health Technology Akure, Ondo state.

Hypothesis 2: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on students' gender among students in all Colleges of Health Technology Southwestern, Nigeria

Table 4:12a MANOVA showing the significant difference in students' competence in basic community health knowledge and practical skills based on gender

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Corrected model	Students' competence in basic community health knowledge	14.536	1	14.536	1.254	.264	.005
	Practical skills	17.722	1	17.722	1.324	.251	.005
Gender	Students' competence in basic community health knowledge	14.536	1	14.536	1.254	.264	.005
	Practical skills	17.722	1	17.722	1.324	.251	.005
Error	Students' competence in basic community health knowledge	2932.860	253	11.592			
	Practical skills	3386.262	253	13.384			
Corrected Total	Students' competence in basic community health knowledge	2947.396	254				
	Practical skills	3403.984	254				

Table 4:12a above showed that there were no significant gender based difference in students' competence in basic community health knowledge (F (1,253) = 1.254, p>.05) and practical skills (F (1,253) = 1.324, p>.05). Null hypothesis was retained.

Table 4:12b Estimated Marginal Means from the analysis of students' competence in

basic community health knowledge and practical skills based on gender

Dependent Variable	Gender	Mean	Std.Error
Students' competency in basic community health knowledge	Male	20.689	.436
	Female	20.129	.244
Practical skills	Male	20.262	.468
	Female	19.644	.263

Table 4: 12b above shows the Estimated Marginal Means from the analysis of students' competence in basic community health knowledge and practical skills based on gender. Male had the highest mean score of 20.689 and 20.262 in both basic community health knowledge and practical skills while female scored 20.129 and 19.644 in both basic community health knowledge and practical skills.

Hypothesis 3: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on teachers' academic qualification in Colleges of Health Technology, Southwestern, Nigeria.

Table 4:13a   MANOVA showing the significant difference of students' competence in

basic community health knowledge and practical skills based on teachers' academic

qualification.

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Corrected model	Students' competence in basic community health knowledge	21.604	4	5.401	.382	.821	.006
	Practical skills	38.546	4	9.637	.740	.565	.012
Teachers' Academic Qualif.	Students' competence in basic community health knowledge	21.604	4	5.401	.382	.821	.006
	Practical skills	38.546	4	9.637	.740	.565	.012
Error	Students' competence in basic community health knowledge	3534.380	250	14.138			
	practical skills	3254.536	250	13.018			
Corrected Total	Students' competence in basic community health knowledge	3555.984	254				
	Practical skills	3293.082	254				

Table 4:13a above showed that there were no significant difference in students' competence in basic community health knowledge (F (4,250) = 382, p>.05) and

practical skills ($F_{(4,250)} = .565$, $p > .05$) based on teachers' academic qualification. Null hypothesis was therefore retained

Table4:13b Estimated Marginal Means students' competence in basic community health knowledge and practical skills based on teachers' academic qualification.

Dependent Variable	Teachers' Academic Qualification.	Mean	Std.Error
Students' competence in basic community health knowledge	CHO	19.925	.481
	PHC TUTOR	18.650	.420
	B.Sc,B.Ed	19.215	.423
	M.Sc / M.Ed	18.600	.971
	Ph.D	18.850	.841
Practical Skills	CHO	19.328	.462
	PHC TUTOR	18.400	.403
	B.Sc,B.Ed	18.443	.406
	M.Sc/ M.Ed	18.400	.932
	Ph.D	18.400	.807

Table 4:13b above shows the estimated marginal means of students' competence in basic community health knowledge and practical skills based on teachers' academic qualification. Students with teachers with CHO certificate scored highest with mean score of 19.925 and 19.328 in both basic community health knowledge and practical skills.

Hypothesis 4: There will be no significant difference is students' competency in basic community health knowledge and practical skills based on teachers' age in Colleges of Health Technology, Southwestern, Nigeria.

Table4:14a: MANOVA showing the significant difference in students' competence in basic community health knowledge and practical skills based on teachers' age.

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Corrected model	Students' competence in basic community health knowledge	30.798	6	5.133	.436	.854	.010
	Practical skills	72.596	6	12.099	.901	.495	.021
Teachers' Age	Students' competence in basic community health knowledge	30.798	6	5.133	.436	.	.010
	Practical skills	72.596	6	12.099	.901	.495	.021
Error	students' competence in basic community health knowledge	2916.598	248	11.760			
	Practical skills	3331.389	248	13.433			
Corrected Total	Students' competence in basic community health knowledge	2947.396	254				
			254				
	Practical skills	3403.984					

Table 4:14a above showed that there was no significant difference in students' competence in basic community health knowledge (F (6,248) = .436, p>.05) and Practical skills (F (6,248) = .901, p>.05) based on teachers' age. Null hypothesis was retained.

Table 4: 14b: Estimated Marginal Means from the analysis of students' competence in basic community health knowledge and practical skills based on teachers' age

Dependent Variable	Teachers' Age	Mean	Std.Error
Students' competence in basic community health knowledge	< 30 years	20.476	.748
	31-35 years	20.267	.885
	36-40 years	20.421	.45
	41-45 years	20.484	.436
	46-50 years	20.000	.637
	51-55 years	20.177	.436
	56+ years	18.667	1.143
Practical skills	< 30 years	19.143	.8000
	31-35 years	18.000	.946
	36-40 years	20.105	.485
	41-45 years	20.129	.465
	46-50 years	19.690	.681
	51-55 years	19.790	.465
	56+ years	20.333	1.222

Table 4:14b above shows the Estimated Marginal Means from the analysis of students' competence in basic community health knowledge and practical skills based on teachers' age. Students with teachers below 30yrs and 55 years + had the highest mean score while students with 36-45yrs, 56yrs + had the highest mean score in practical skills.

Hypothesis 5: There will be no significant difference in students' competence in basic community health knowledge and practical skills based on teachers' years of teaching experience in Colleges of Health Technology, Southwestern, Nigeria.

Table 4:15a MANOVA showing the significant difference in students' competence in basic community health knowledge and practical skills based on teachers' years of teaching experience

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Eta Squared
Corrected model	Students' competence in basic community health knowledge	490.700	6	81.783	6.617	.000	.138
	Practical skills	250.531	6	41.755	3.403	.003	.076
Teaching Experience	Students' Competence in Basic Community Health Knowledge	490.700	6	81.783	6.617	.000	.138
	Practical skills	250.531	6	41.755	3.403	.003	.076
Error	Students' competence in basic community health knowledge	3065.285	248	12.360			
	Practical skills	3042.552	248	12.268			
Corrected Total	Students' competence in basic community health knowledge	3555.984	254				
	Practical skills	3293.082	254				

Table 4:15a above showed that there was significant difference in students' competence in basic community health knowledge (F (6,248) = 6.617, p<.05) and practical skills (F(6,248) = 3.403, p<.05) based on teachers' years of teaching experience. The null hypothesis was rejected.

Table 4:15b Estimated Marginal Means of students' competence in basic community health knowledge and practical skills acquisition based on teachers' years of teaching experience

Dependent Variable	Teachers' Age	Mean	Std.Error
Students' competence in basic community health knowledge	<= 5years	17.832	.361
	6-10 years	20.456	.396
	11-15 years	17.778	.524
	16-20 years	18.846	.975
	21-25 years	22.000	1.060
	26-30 years	20.429	1.329
	31+ years	20.600	1.572
Practical skills	<= 5years	17.684	.359
	6-10 years	19.734	.394
	11-15 years	18.178	.522
	16-20 years	17.846	..971
	21-25 years	20.091	1.056
	26-30 years	20.286	1.324
	31+ years	20.000	1.566

Table 4:15b above shows the Estimated Marginal Means from the analysis of students' competence in basic community health knowledge and practical skills acquisition based on teachers' years of teaching experience. Students of teachers with 21-25yrs of teaching experience had the highest mean score of 22.000 in basic community health knowledge while students of teachers with 21-31years had the highest mean score in practical skills.

Table 4:15c: Scheffe Post-Hoc Pairwise comparison on students' competence in basic community health knowledge and basic practical skills among Students based on teachers' years of teaching experience.

Dependent variables	Teachers years of teaching experience	Teachers years of teaching experience	Std.Error	Sig.
Students' competence in basic community health knowledge	< 5 years	11-15 years	.4296	.000
		16-20 years	.4957	.018
	6-10 years	11-15 years	.4474	.018
Students' competence in basic practical skills	< 5 years	6-10 years	.4142	.003
		11-15 years	.4355	.000
		16-20 years	.5025	.000
	6-10 years	11-15 years	.4535	.009

Table 4:15c above showed that for basic community health knowledge there were pair significant differences between < 5 years and 11-15 years; < 5 years and 16-20 years and 6-10 years and 11-15 years.

For practical skills there were pair significant differences between: < 5 years and 6-10 years; < 5 years and 11-15 years; < 5 years and 16-20 years; 6-10 years and 11-15 years.

Hypothesis: 6: There will be no significant difference in the perception of the relevance and adequacy of curriculum objectives of 200 and 300 level students

Table 4:16 T-test of perception of the relevance and adequacy of curriculum contents of 200 and 300 level students

Perception of the relevance and adequacy of curriculum objectives	N	Mean	Std. Dev.	Crit-t	Cal-t.	DF	P
200 Level students	256	22.7930	4.1454				
				1.96	.464	509	.643
300 level students	255	22.6353	3.5132				

Table 4:16 showed that there was no significant difference in the perception of the relevance and adequacy of curriculum objectives of 200 and 300 level students (Crit-t = 1.96, Calt = .464, df = 509, P > .05 level of significance). The null hypothesis is therefore retained.

Hypothesis 7:   There will be no significant difference in the perception of the relevance and adequacy of curriculum contents of 200 and 300 level students

Table 4:17 T-test of perception of the relevance and adequacy of curriculum contents of 200 and 300 level students

Perception of the relevance and adequacy of curriculum contents	N	Mean	Std. Dev.	Crit-t	Cal-t.	DF	P
200 Level students	256	26.5938	4.3448				
				1.96	1.440	509	.151
300 level students	255	26.0667	3.9204				

Table 4:17 showed that there was no significant difference in the perception of the relevance and adequacy of curriculum contents of 200 and 300 level students

(Crit-t = 1.96, Cal.t = 1.440, df = 509, P > .05 level of significance). The null hypothesis is therefore retained.

Report of Focus Group Discussion

Focus group discussion lasting one hour was held in each of the schools, six final year students were purposively selected from each school for each session. The guide prepared for FGD was used in probing the discussants and the questions raised under the guide were thoroughly and comprehensively discussed by the discussants (students), while the research assistants assisted in noting down responses from participants in each session.

Question 1: What is your opinion about the community health programme curriculum?

Majority of the participants were of the opinion that the community health programme curriculum was good but some courses should be removed while some should be compressed. Some were of the opinion that it was too broad compared to the certificate awarded and that the time for practical not enough, as they do not have enough exposure to practicals. Below are some of their quotes:

1. *"The curriculum is okay and good, but there are some courses that I don't expect to find in it"*

2. *" Some of the course contents should be put together because they are too small to be a course e.g Hiv 1, HIV 2, communicable diseases should be separated from non communicable diseases , infact hiv should be under communicable diseases then care of the eye, care of the nose, throat and throat"*

3. *" The curriculum is too cumbersome, the certificate is very low, pertaining to the curriculum we are using , it would be good if the certificate is changed from National Diploma to Higher National Diploma in community health"*

4. *There are a lot of health conditions that are not in the standing order as stipulated in the curriculum.*

5. *The courses are very relevant, I don't think anyone should be removed or added to the curriculum"*

6. *Not all courses are relevant, some are not in the curriculum and is made mandatory by the school e.g use of library, chemistry, citizenship, they should be removed"*

Question 2: What is your opinion about the duration of the programme?

While most participants are satisfied with the duration of the programme, all of the participants say that it is too long compared to the certificate awarded at the end of the programme. Below are some of their quotes:

1. *"The duration is adequate to acquire proficient skills and knowledge but we do not have enough practical exposure as we are not allowed to practice while on practicals, the workers on the field do not allow us to practice and gain".*

2. *" It's okay unless it is changed to HND, then they can add another one year to make it four years"*

3. *"We have adequate time to cover the courses, it depends on the lecturers, if the lecturers have time for us they will be able to cover the subjects and if we the students are ready to sit down and learn at that stipulated time lectures has for us, yes the time is okay".*

4. *The lecturers should stick to the curriculum, sometimes they teach us what is not in the curriculum and then it is different during final examinations"*

5. *"We use one week to write our examinations, it is overloaded, and we write three papers in a day"*

Question 3: What is your opinion on the availability and adequacy of facilities to implement this curriculum?

Majority of the discussants reported that their school were not well equipped with the necessary facilities for effective teaching and learning. Below are some of the quotes:

1. *"My school is not well equipped at all, because of the way they run the school, others call us advanced secondary school"*

2. *"Lai, lai, we are not well equipped, we do not have enough classrooms, we use classrooms for 2 levels, so we have to go on practicals when others are in class and later switch over, because of lack of space, we paid for computer yearly but do not have access to computers, we do not have internet, the demonstration is small and not well equipped"*

3. *"The teachers are okay; they go for seminars and come to teach us new things"*

4. *We do not have enough number of teachers but they have adequate skills, they are few in number.*

5. *"We have hostel but it is not standard, male and female share hostel, most students live outside"*

6. *"The demonstration room is not accessible, it is not well equipped, and it is not adequate for the number of students"*

Question 4: What teaching methods are commonly employed in teaching the curriculum?

The teaching methods reported by most discussants as evident from these quotes below:

1. *"The methods the teachers use is effective and the teachers are trying, we may not know the best way but it is okay for us, we do presentations, assignments, and they explain when we do not understand"*

2. *"We do not have teaching aids, they use lecturing most of the time, there is difference between lecturing and teaching, but most of them lecture. Demonstration is used only during clinical skills"*

3. *"We only use role play when the student teachers come from UCH, they mainly use handouts, lectures, assignments, presentations and group discussion. I find handout more suitable because we have something to read at home"*

Question 5: How do you perceive your school environment in relation to teaching/learning?

Most of the respondents admitted that the school environment is not conducive for teaching and learning. Below are some of their responses.

3. *"We do not have a conducive school environment; there is a lot of noise on the corridor because students gather on the corridor talking as there are no classrooms, no light. The environment should be clean and quite".*

2. *"We do not have functioning school toilets, available toilet are sited away from school rea, in a bushy area, and no water we make use of the bush, "SP-short put, browsing".*

3. *"We do not have school accommodation, we rent rooms outside and we have to be home before 7.00pm or we are asked to go back where you are coming from, some of our female students were even raped recently."*

4. *"We do not have school toilets, we take flagyl before coming to school or we use the public toilet outside the school or urinate at the back of the building and people can see us".*

5. *"We share classrooms it is first come, first serve".*

Question 6: What is your opinion about time allotted to teaching of courses?

Most of the discussants were of the opinion that the time allotted for teaching was adequate while some expressed their displeasure with arbitrary use of time.

1. *"We have sufficient time on the time table to cover all courses, two hours on the time-table is sufficient for each course"*

2. *"We are properly taught, our teachers always come when it is their period"*

3. *"Time allotted is arbitrarily, it should be based on number of units and the time allotted for examinations should be based on units"*

4. *"The time is adequate but we do not have a stable time table, lecturers can fix lectures anytime. We are not taught throughout the school hours, we that live outside decide to go home, the lectures will say students are not serious"*

5. *"The examinations are okay, it is what we are taught"*

6. *"We do not have a standard time table, some lecturers come when they like and when they are free, the part time lecturers use any available time, some cover the syllabus while some don't".*

 Question 7: What challenges do you encounter with this curriculum?

Some of the challenges identified by the discussants are listed below:

1. *"Some of what is in the curriculum contents are not in the handouts and the curriculum is used for final examinations"*

2. *"We face a lot of challenges on the field, they do not allow us to perform clinical procedures, they just underrate us and send us on personal errands".*

3. *"Imagine 2 levels of students sharing one class, we have to wait for one to finish before another, the chairs are not sufficient, we have to carry chairs from other class"*

4. *"The practicals is a major challenge, the time is inadequate and the people there do not allow us to practice procedures".*

5. *"Practical time is too short, work is more of theory than practical"*

6. *"We do not have school bus for practicals, we have to take public transport and pay from our pockets when going for practicals. It is not fair"*

7. *We make contributions for transportation when we are going for practicals"*

8. *"There is gender discrimination; males should be allowed to practice delivery as the male doctors do."*

9. *"Accommodation is a major challenge, they rape some of our students in the evening near the school"*

Question 8: What recommendations could you make for improvement of the curriculum?

Some of the discussants made the following recommendations:

1. *"We appeal to the authority to provide accommodation, security, equipments",*

2. *"The clinic should be upgraded; students should be referred when they are sick as there are no first aid facilities".*

3. *"They should broaden our scope of clinical practice and add more value to community health practice"*

4. *"Lecturers should adhere to curriculum when making handouts"*

5. *"There should be team work between the school and practical areas, sometimes we get there, they send us back that they are not expecting us as they have not been informed"*

6. *"JCHEW is a waste of time, it should be stopped, the schools should be affiliated to Universities for a degree"*

7. *"The clinic should be improved, no first aid is available , a student can even bleed to death because of lack of first aid."*

8. *"This curriculum should be revised more often, we have been using this one for long, at least five months interval"*

9. *"We should be allowed to go on excursion"*

Discussion of findings

The findings on the adequacy of teaching and learning environment for the implementation of Community Health Curriculum in Colleges of Health Technology revealed that teaching and learning environment was not adequate for the implementation of Community Health Curriculum in Colleges of Health Technology South-West, Nigeria. This is supported by the finding of the focus group discussion as quoted*"we do not have a conducive school environment, there is a lot of noise on the corridor because students gather on the corridor talking as there are no classrooms, no light". "The environment should be clean and quiet" "we do not have functioning school toilet, available toilet are sited away from school area, in a bushy area, and no water". "we do not have school accommodation, we rent rooms outside and we have to be home before 7pm or we are asked to go back where you are coming from, some of our female students were even raped recently"*

The standard requirement for implementation of community health courses states that the school should be located preferably in the rural or semi-urban area and not in the state

capital with adequate land mass for further development. The standard also requires that the schools should have adequate toilet facilities and potable water. 69.1% students and 69.7% teachers while 81.4% students and 57.6% teachers agreed that the schools had inadequate water supply and toilet facilities respectively. Only 33.3% of the schools were located in the state capital while 66.7% are situated in urban areas. College of health technology, Yaba does not have landmass for further development as the present location cannot even accommodate the various relevant departments. This corroborates the findings of Labiran, Mafe, Onajole and Lambo, (2008) that Community health training programme face similar difficulties to those of other pre-service programme as they are run in an unsuitable training environment and also the study of Damtew, Moges and Kaaseboll in 2011 that all the community health training institutions studied were found to lack adequate facilities including classrooms, libraries, information communication technology (ICT), demonstration room.

According to Gomleksiz (2012) the learning environment should be well-designed to provide effective instructions and enhance learning experiences. "Social environment" like family members and friends also form part of the learning environment. It therefore becomes imperative to provide students with a rich and supportive learning environment. Effective teaching should combine many factors, including aspects of the teacher's background, and ways of interacting with others, as well as precise teaching practice. Teachers who are efficient should care about their students and demonstrate this care in such a way that their students know it. This care creates a warm and supportive classroom environment. Teachers have a deep effect on students' learning. They can bring the real world to students through technology that can facilitate teaching. (Schroder, Scott, Tolson, Huang, & Lee, 2007 in Gomleksiz 2012).

The findings on the perception of students and teachers on the adequacy and relevance of contents and objectives of the Community Health Curriculum used in Colleges of Health Technology revealed that the contents and objectives of the Community Health Curriculum are both adequate and also relevant this disagreed with the findings of Labiran, Mafe, Onajole and Lambo, (2008) that many training programmes for community health workers are inadequate, largely irrelevant, and that the curricula of most medical and health sciences schools are still over burdened with the pursuit of knowledge that is irrelevant. According to Akuezuilo, (2006), the

quality of any educational system is to a great extent dependent on the relevance and adequacy of its objectives and contents of the school curricula. Furthermore, Akuezuilo, (2006) believed that the quality of any educational system is to a large extent dependent on the relevance and adequacy of its objectives and contents of the school curricula.

Furthermore, while the findings on teachers teaching attitude was positive the attitude of learners was found to be negative in Colleges of Health Technology in Southwestern, Nigeria. While teachers take a positive attitude towards their jobs by encouraging students to participate actively during teaching/learning process thereby preparing them for a brighter future, students negative attitude can also affect learning negatively for a lot depends on the students for effective learning to take place. According to Balogun (1997) and Duze, (2012) attitude of learners and teachers as some of the several input variables necessary for achieving learning outcomes and that attitude contributes substantially more than other variables in predicting achievement. Yoloye, (1999) as cited by Ojo, (2003) stated that attitude of a learner towards a subject determines to a large extent the measure of his interest, positive or negative to the particular subject. He submitted that a negative attitude leads to poor achievement and vice-versa. Akubuiro, (2004) from his study reported that attitude towards a particular subject is positively related to performance in the subject.

The profile of teachers in the colleges revealed that all the Colleges of Health Technology under study were headed by a medical or health professional, the heads of community health department in various Colleges possessed the Primary Health Care Tutor certificate and the departments had lecturers from other departments as visiting or part time lecturers for other courses and specialties as recommended by the standard. However, only 33.3 % of the Colleges of health technology had 5 and more full-time primary health care tutors as recommended by the standard. The College of Health Technology Yaba, Lagos had the highest number of Primary Health Care Tutors (10), followed by College of Health Technology, Ilesa Osun state (8), then Colleges of Health Technology, Oyo, Ogun and Ondo with (4) each and finally College of Health Technology Ijero-ekiti with (3) Primary health care tutors. However there were still 18.2% of tutors with only CHO certificates which is against the standard requirement that tutors that teaches community health courses must be a Primary health care tutor.

From the findings of the study, both teachers and students find the evaluation techniques used in Colleges of Health Technology to be appropriate and adequate. Focus group findings also state that *"The examinations are okay, it is what we are taught".* This finding agreed with the findings of Adegbile, (2011) and Rajid, (2014) that adequate assessment of students is important to determine the extent to which the formulated objectives have been realized before teaching and learning can be said to have taken place. According to Adegbile, (2011) it is important for a teacher to plan contents adequately together with objectives, execute his plans adequately as well as assess the students in order to determine the extent to which the formulated objectives have been realized before teaching and learning can be said to have taken place.

From the responses of both students and teachers, the teaching methods are varied as methods include: lecture, question, textbooks, handouts, discussion, demonstration and group work, however, most of these methods are not modern and learner centred. The modern and learner centred methods like role play, analogy/simulations, project method and guided discovery, field trip/excursions, were not well explored. These findings are also supported by the findings of the focus group discussion as quoted *"Most of the time the teachers use handouts, demonstrations, lectures" "We do not have teaching aids, they use lecturing most of the time, there is difference between lecturing and teaching, most of them lecture., demonstration is used only during clinical skills" "We only use role play when the student teachers come from UCH, our teachers mainly use handouts, lectures, assignments, presentations and group discussion. I find handout more suitable because we have something to read at home"* According to Moronkola, Akinsola, and Abe, (2000) the method by which the teacher presents his/her material to learner may enhance or hinder learning. For teaching to be effective a skilful teacher needs to use the many different methods and techniques available to him/her.

Both teachers and students found majority of the instructional materials not sufficient as such not appropriate for teaching and learning. ICT is one of the facilities specifically recommended for use by the curriculum and this was not available for students use in most schools. Damtew, Moges and Kaaseboll, (2011) observed that all the community health training institutions studied were found to lack adequate facilities including classrooms, libraries, information communication technology (ICT) and demonstration room. This is supported by the finding of the focus group discussion *"Lai, lai, we are not well equipped, we do not have enough classrooms, we use*

classrooms for 2 levels, so we have to go on practicals when others are in class and later switch over, because of lack of space,we paid for computer yearly but do not have access to computers, we do not have internet, the demonstration room is small and not well equipped"
"we share classrooms it is first come, first serve"

Furthermore, according the standard requirement for the teaching of community health curriculum and accreditation process; based on availability and sufficiency of the mandatory facilities the study revealed that 67.9% of the students and 15.5% of teachers found the demonstration room insufficient, while 52.9% of students and 69.7% of teachers found the laboratory insufficient. 56.5% of students and 66.7% of teachers found the classroom insufficient, 38.9% of students and 78.8% of teachers found the school clinic insufficient for at least 50 students as required by the standard.

63.6% of students and 57.6% of teachers found the library insufficient while 61.3% of students and 60.6% of teachers found electricity insufficient. 67.9% of students and 56.6% of teachers found computers insufficient while 56.5% of students and 75.7% of teachers found internet facility insufficient. 46.4% of students and 78.8% of teachers found clinical posting insufficient. All the schools had tutors office but none of them accommodates only two tutors, the minimum is 4 tutors in one room. All the colleges had school buses but this may not be available for students' use when needed as this bus serves a minimum of seven departments in the colleges. According to the findings of the focus group discussion, "*We do not have school bus for practicals, we have to take public transport and pay from our pockets when going for practicals. It is not fair" "We do not have school accommodation, we rent rooms outside and we have to be home before 7pm or we are asked to go back where you are coming from, some of our female students were even raped recently*"

From the responses of the students and teachers it can be deduced that the time allotted to teaching of the Community health curriculum contents is adequate. However, in table 4.1a and 4.1b where 310 (60.7%) of students and 27 (81.8%) of teachers disagreed that the school provides an atmosphere conducive for learning, 311 (60.9%) of students disagreed that the school has sufficient classrooms, while in table 4.6c and 4.7c 22 (66.7%) of teachers and 289 (56.5%) of students respectively rated the classrooms as being insufficient, in table 4:9 the teachers identified inadequate staff 19(57.6%) and teaching materials 17(51.5%) as some of the challenges that hinder effective implementation of the curriculum. The focus group finding also

revealed the following: *"We have sufficient time on the time table to cover all courses, two hours on the time-table is sufficient for each course,"* *"The time is adequate but we do not have a stable time table, lecturers can fix lectures anytime We are not taught throughout the school hours, when we that live outside decide to go home, the lecturers will say students are not serious"* *"We do not have a standard time table, some lecturers come when they like and when they are free, the part time lecturers use any available time, some cover the syllabus while some don't."*

Time is a scarce resource and should be judiciously used; time wasted can never be regained. It is important to have a school time table that is strictly adhered to for effective achievement of educational goals in any training environment. With insufficient classrooms, atmosphere and environment not conducive for learning, insufficient instructional materials, inadequate staff and teaching materials though time allotment may be adequate, it may be difficult to achieve educational goals and effectively implement the curriculum of any institution.

Furthermore the study identified lack of motivation of tutors, students' indiscipline, inadequate teaching materials, inadequate funding, inadequate in-service education, inadequate staff, programme overload and insufficient materials for practical as challenges to successful implementation of the curriculum. This corroborates the findings of Igberedja, (2014) that some of the challenges in implementing a curriculum include: inadequate and obsolete infrastructure and equipment like libraries, dilapidated classroom blocks and workshops, inadequate staff shortage, brain drain, lack of motivation, inadequate funding, high incidence of cultism, examination malpractice, unstable academic calendar, inadequate capacity in the institution for internal/ peer quality assessment.

This study further revealed that there was a significant difference in basic community health knowledge and basic practical skills. College of Health Technology Ilese, Ogun State had the highest mean score in basic community health knowledge while both Colleges of Health Technology Yaba, Lagos State and Ilesa, Osun State had the highest mean score in basic practical skills. Colleges of Health Technology Ijero-Ekiti, Ekiti State and Akure, Ondo State had the lowest mean score in basic community health knowledge and basic practical skills respectively.

The study also revealed that there was no significant difference in basic community health knowledge and basic practical skills acquisition based on students' gender. Afuwape and Oludipe, (2008) examined the integrated science achievement

of pre-service teachers over a period of three years for gender difference. Results revealed that the gender gap between male and female students could be disappearing. This they said is a source of hope for the country because this is contrary to the general Nigeria conventional belief about male and female performance, Furthermore Okonna, Ushie and Okworo in their study in 2014 also revealed that no significant difference exists between the academic performance of male and female maritime security trainees. Finally, Adeyemi, (2014) revealed that gender has no significant effect on students' achievement in geography in general and map work.

The study further revealed that there was no significant difference in students' competence in basic community health knowledge and practical skills based on teachers' academic qualifications. This finding is in keeping with the findings of Musau and Abere, (2015) that teacher academic qualification does not significantly influence the students' academic performance.

Findings revealed that there was no significant difference in students' competence in basic community health knowledge and practical skills based teachers' age. This supports the findings of Kiman, Kara and Njagi, (2013) that teachers' age, gender, professional qualifications and professional experience did not have significant effect on academic achievement in Secondary schools.

Finally there was significant difference in students' competence in basic community health knowledge, and practical skills based on teachers' years of teaching experience. Students with teachers that had 21-25 years of teaching experience had the highest mean score of 22.000 in basic community health knowledge while students with teachers that had 26-30 years of experience had the highest mean score of 20.286 in practical skills. This finding is in keeping with the findings of Ewetan and Ewetan (2015) that teachers' years of teaching experience has significant influence on students' academic performance and that schools having more teachers with above 10 years teaching experience achieved better results than schools having more teachers with 10 years and below teaching experience.

Finally there was no significant difference in the perception of the relevance and adequacy of curriculum contents and objectives between 200 and 300 level students. This is probably because all students are given copies of the curriculum on resumption for training.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter presents the summary, conclusion and recommendations based on the findings of the study.

Summary

This is a descriptive study carried out to evaluate the community health curriculum using the context input process and product model of evaluation. This became necessary because there is no policy that is taken on the face value as performing or not performing until it is evaluated. Developing a curriculum is not the end of the educational exercise; rather curriculum must be seen to be achieving its desired objectives. If the curriculum is the tool to achieve both educational aims and societal needs it is important for educational curriculum to be evaluated periodically to ensure it is in line with the aims of the institution and societal needs.

A curriculum, however, beautifully planned it maybe, will be of no relevance if it is not implemented or well implemented. A duly implemented curriculum determines how well educational objectives are achieved. There is no gain saying that effective implementation is very vital to achieving the educational goals of the community health curriculum. The contents of the curriculum can only be taught effectively if the curriculum resources (manpower and materials) are adequately provided in the schools. The only way to ascertain that a curriculum is achieving its objectives is to evaluate the curriculum regularly, at the commencement, when it is in progress and when it is being terminated.

The CIPP evaluation model is a framework for guiding evaluations of programmes, projects, personnel, products, institutions, and evaluation systems. Furthermore, the study employed the total enumeration and purposive sampling techniques with a total sample size of 544 respondents comprising of 511 students, 6 HoDs, 27 community health tutors of the community health department in Colleges of Health Technology in Southwestern Nigeria. However the study encountered a major limitation as the 100 level students, teachers and students absent from school during the period of the study were excluded from the study. The instrument for data collection included reliable, validated and self developed, questionnaire, practical procedure checklist used to assess students' practical skills and focus group

discussion guide. The questionnaire had reliability of 0.93 and 0.93 while the students learning outcome questionnaire (SLOQ) was analyzed using Kuder Richardson test and has reliability of 55% for section B, 50%.. Data collected was analyzed using descriptive statistics of frequency counts, percentages, mean and standard deviation, and inferential statistics of multivariate analysis of variance (MANOVA) and independent t-test. The study provided answers to eleven research questions and tested seven hypotheses at 0.05 alpha significance level.

Conclusion

Findings from this study revealed that the teaching and learning environment was not adequate, the curriculum contents and objectives were relevant and adequate, the students had negative attitude to learning while teachers had positive attitude to teaching. The time allotted to teaching of the contents and assessment techniques were also found to be adequate. The study identified lack of motivation, students' indiscipline, inadequate teaching materials, inadequate funds, inadequate staff, programme overload and insufficient materials for practical as challenges to successful implementation of the curriculum.

The study revealed a significant difference in students' competence in basic practical skills and community health knowledge in all Colleges of Health Technology in Southwestern Nigeria. College of Health Technology Ilese, Ogun State had the highest mean score in basic community health knowledge while College of Health Technology Yaba, Lagos State and Ilesa, Osun State both had the highest mean score in basic practical skills. College of Health Technology Ijero-Ekiti Ekiti State and College of Health Technology Akure, Ondo State had the lowest mean score in basic community health knowledge and basic practical skills respectively. Furthermore, there was a no significant difference in students' competence in basic community health knowledge and basic practical skills based on students' gender, teachers' academic qualification and teachers' age but there was a significant difference in the basic community health knowledge and basic practical skills based on teachers' years of teaching.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. The school environment in Colleges of Health Technology in Southwestern Nigeria should be made conducive for learning and teaching. Classrooms large enough to

take a minimum of 50 students should be provided, each academic level should have a classroom or lecture hours should be arranged in such a way that idle students do not constitute nuisance to the school environment. Functional school toilets with constant water supply should be provided and made accessible for students use especially around the school area. Well equipped school clinic is recommended to provide first aid and emergency care and treatment of minor ailments to students and staff. Recreational facilities should be provided in all the Colleges of Health Technology under study as this will enhance learning

2. Appropriate teaching methods should be used to enhance teaching and learning including the use of electronic instructional materials, the use of internet facility and other modern and learner centered methods of teaching. Where facilities like computers are available, they should be made accessible to students.

3. Teachers should be exposed to further academic training in teaching after the completion of the mandatory PHC Tutor Certificate so as to become conversant with varied modern and appropriate methods of teaching. There should be periodic capacity training and retraining of teachers so that those with years of experience can develop the capacity of the younger ones to improve their performance and improve work conditions.

4. There is the need to increase the number of tutors teaching community health courses to meet the minimum number required for the implementation of the curriculum.

5. There is need for a close collaboration and team work between the tutors in school and clinicians at the clinical areas of students posting to maintain close monitoring and continuity of teaching and learning in order to achieve the purpose of these postings. It is important that students gain proficiency in practical skills as the profession requires competency in both knowledge and practical skills.

6. Adequate funds should be made available by all levels of government and the Community Health Practitioners' Registration Board of Nigeria for provision of the identified factors that were hindering effective implementation of the curriculum.

7. Primary health care tutors' certificate is the basic professional educational requirement to teach in Colleges of Health Technology, as such teachers yet to acquire such certificate should be encouraged to do so.

8. Textbooks and handouts when giving to students should be in line with curriculum contents and also guest lecturers should be given copies of the curriculum for the courses they teach.

9. Teachers should be motivated through prompt payment of salaries, sponsorship and release to attend workshops, seminars, in-service education and other academic programmes so that those with years of teaching experience will continue to be motivated to utilize their work experience to benefit students.

10. It is important to put in place structures for effective evaluation of community health curriculum at least every five years. A curriculum evaluation committee should be set up to this effect by the Community Health Practitioners Registration Board of Nigeria.

Suggestion for further studies

This study evaluated the Community Health Curriculum in Colleges of Health Technology in Southwestern, Nigeria:

1. The researcher gathered data only from the students and tutors currently undergoing the programme and did not include graduates of the programme. Future studies may focus on a comparative analysis. For example, a study based on the perceptions of the graduates and these can be compared with the current study.

2. Studies involving graduates of Colleges of Health Technology can be conducted to ascertain the challenges they are having on the field which they perceive is as a lapse in the curriculum or a needs-analysis of the students could be focused on in order to make relevant adaptations and contributions to the improvement of the programme.

3. This study should be replicated in other geopolitical zones and states of the Federation to establish a more valid generalization of findings.

4. This study made use of questionnaire and focus group discussion; another study may include observation method for a more comprehensive evaluation.

5. A study to compare community health curriculum implementation between public and private Colleges of Health Technology in Southwestern, Nigeria.

Contributions to Knowledge

1. This study has provided empirical contributions for the improvement of the Community health curriculum used in Colleges of Health Technology in Southwestern, Nigeria and the standard in which these schools are operating.

2. The findings of this study established the fact that the teaching and learning environment in Colleges of Health Technology Southwestern, Nigeria is inadequate and therefore not conducive for learning.

3. Established the current status of the community health training curriculum in CoHT.

4. Provided baseline information on the inadequate condition of teaching and learning environment in CoHT.

5. This study also established a documented study in community health and also a baseline for further studies.

6. This study revealed the need for periodic evaluation of curriculum used in these institutions of learning and the factors that hinder the effective implementation of the curriculum.

7. Developed a conceptual framework for the evaluation of CoHT curriculum to achieve curriculum goals and the development of necessary knowledge and practical skills for Community Health Extension Workers.

8. Sensitize stakeholders on the need to develop and implement standards for training of community health workers in Nigeria.

9. Established factors that may hinder implementation of curriculum.

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APPENDIX 1

QUESTIONNAIRE ON EVALUATION OF COMMUNITY HEALTH CURRICULUM IN COLLEGES OF HEALTH TECHNOLOGY IN SOUTHWESTERN, NIGERIA

Department of Human Kinetics and Health Education
Faculty of Education University of Ibadan, Ibadan

STUDENTS' QUESTIONNAIRE (SQ)
(Questionnaire to be completed by students)

Dear Respondent,

I am a post graduate student of the above named Institution .I am conducting a research on the Evaluation of Community Health Curriculum implementation in Colleges of Health TechnologySouth West Nigeria. This questionnaire is purely for research and academic purposes and your participation is voluntary. Please supply responses to all the items provided and your participation is voluntary at any stage of this response. The outcome of this work may serve as input to decision making process in the revision of the curriculum. Your prompt cooperation is needed to make this study a success. I assure you that all information given will be treated with utmost confidentiality.Thank you.

Yours sincerely,

Francisca C. Adebayo

SECTION A

DERMOGRAPHIC DATA

Please fill in the information

1. Name of School: ……………………………………….

2. State: ……………………………………………….

Please tick (√) the box that corresponds to your answer

3. Age: 1) 15-19 yrs ( ) 2) 20-24 yrs ( ) 3) 25-29 yrs ( ) 4) 30 yrs and above ( )

4. Class: 1) CHEW 1 ( ) 2) CHEW 2 ( ) 3) CHEW 3 ( )

5. Sex: 1) Male ( ) 2) Female ( )

SECTION B

The following statement aimed at assessing the relevance and adequacy of Community Health curriculum. You are expected to respond to each of the statement based on your perception. The following range is to guide you. SA=Strongly Agree-4 , A=Agree,-3, D=Disagree-2, SD=Strongly Disagree-1. Please tick (√) the box that corresponds to your answer.

S/N	Adequacy and relevance of curriculum contents	SA 4	A 3	SD 2	D 1
7	The number of courses students are exposed to are adequate				
8	The content is overloaded				
9	The content of each course work is adequate				
10	Practical components are adequately covered in the content				
11	The content is takes care of professional needs after graduation				
12	The content is lacking relevant concepts				
13	The content exposes students to necessary skills for community health practice				
14	The contents are necessary for students to meet grass root community health				
15	The contents enable students acquisition of practical professional skills				
	Adequacy and relevance of curriculum objectives				
16	The curriculum has clearly stated objectives				
17	The objectives are adequate to meet learners needs				
18	The objectives of the curriculum are not achievable within the period of the programme				
19	The objectives are not in line with the job needs of the students after training				
20	The objectives are not adequate to meet the learners basic community health knowledge and practical				

	skills				
21	The objectives are meaningful and significant as it promotes acquisition of academic and professional skills				
22	The objectives are relevant to the needs of the community at the grassroots				
23	The objectives enable students acquire adequate practical skills to work after training				
	Assessment techniques				
24	The number of examinations students write are adequate				
25	The number of continuous assessments are adequate				
26	The evaluations ensures adequate measure of students learning				
27	The evaluations reflect the contents taught				
28	The evaluations are above learners' level				
29	The evaluations adequately cover the basic community knowledge and practical skills.				
	Teaching/learning environment				
30	The school environment provides an atmosphere conducive for learning				
31	School environment is free of distracting noise				
32	There are sufficient classrooms				
33	Toilet facilities are adequate				
34	The school has adequate potable water supply				
35	Recreational facilities are enough				
36	There is cordial relationship among teachers				
37	The students relate well with each other				
38	Rules concerning cleanliness are always maintained				
39	The school clinic adequately meets staff and students needs				
	Teaching time allotment				
40	The time allocated to courses are inadequate				

		Always 4	Often 3	Someti mes 2	Never 1
41	There is need for more hours to sufficiently cover the curriculum				
42	My teacher though regular in class always rush to complete courses				
43	The courses are adequately covered during the programme				
	SECTION C: Please indicate your opinion on the following options Always=4, Often=3, Sometimes=2 or Never=1: Teachers Teaching Attitude. Please indicate your opinion on your teachers' attitude to teaching. Teachers in my school do the following:	**Always 4**	**Often 3**	**Someti mes 2**	**Never 1**
44	take a positive attitude towards their job				
45	attend classes to teach regularly and promptly.				
46	gives regular assignments to students.				
47	mark, grade and return assignments to students on time.				
48	insists on students making corrections.				
49	delivers lesson in very interesting manner.				
50	uses lesson period to talk about personal problems association matters and other irrelevances.				
51	reads from the handout only when teaching.				
52	allow students to contribute during teaching/ learning process				
53	always insist on quality work from students				
54	encourages traits such as punctuality, neatness, good human relation etc in students.				
55	draws example familiar to students while teaching.				
	Teaching methods used in learning/teaching process				
56	Questions				
57	Role play				

58	Group work				
59	Lecturing				
60	Discussion				
61	Presentation				
62	Demonstration				
63	Field trips/excursions				
64	Project method				
65	Analogy/simulations				
66	Guided discovery				
67	Textbooks and handouts				

SECTION D

QUESTIONNAIRE ON INSTRUCTIONAL MATERIALS ASSESSMENT SCALE (IMAS)

Instruction: Read the statement below and tick anyone of the responses on the right hand side at the end of each statement. The responses are 4 = Quite sufficient, 3 = sufficient, 2 = not sufficient, 1= completely insufficient

S/N	Items	Quite sufficient 4	Sufficient 3	not sufficient 2	completely insufficient 1
68	Classrooms large enough for at least 50 students				
69.	Blackboard or Tempo board				
70.	Current Charts				
72.	Library with at least 5000 current and relevant journals, textbooks.				
73.	Recommended Textbooks				
74	Well equipped Practical Demonstration room for at least 50 students				
75	Enough Computers				
76.	Field work e.g. clinical				

	posting				
77.	Simulations(models, life size dolls)				
78	Electricity facilities with generating set				
79.	Real objects				
80.	Laboratory with adequate facilities for at least 50 students				
81	Functional Internet services				
80	Health centre well equipped for practical				

APPENDIX II

QUESTIONNAIRE ON EVALUATION OF COMMUNITY HEALTH CURRICULUM IN COLLEGES OF HEALTH TECHNOLOGY IN SOUTHWESTERN, NIGERIA

Department of Human Kinetics and Health Education
Faculty of Education University of Ibadan, Ibadan

Principal and Teachers Questionnaire (PTQ)

Questionnaire to be completed by Principals and Teachers

Dear Respondent,

I am a post graduate student of the above named Institution .I am conducting a research on the Evaluation of Community Health Curriculum implementation in Colleges of Health TechnologySouth-West, Nigeria. This questionnaire is purely for research and academic purposes and your participation is voluntary. Please supply responses to all the items provided and your participation is voluntary at any stage of this response. The outcome of this work may serve as input to decision making process in the revision of the curriculum. Your prompt cooperation is needed to make this study a success. I assure you that all information given will be treated with utmost confidentiality.Thank you.

Yours sincerely,

Francisca C. Adebayo**SECTION A**

SOCIO-DEMOGRAPHIC DATA

Please fill in the information

Name of School: …………………………………………..

State:

Please tick (√) the box that corresponds to your answer

1. Sex: 1) Male ( ) 2) Female ( )

2. Age: 1) Below 30yrs ( ) 2) 31-35yrs ( ) 3) 36 – 40yrs ( ) 4) 41- 45yrs ( )
   5) 46-50yrs ( )   6) 51-55yrs ( )   7) 56yrs and above ( )

3. Educational Qualification: 1) (CHO ( ) 2) PHC Tutor ( ) 3)   BSc, B.Ed ( ),
   4) Masters Degree ( ) 5) PhD( )

4. How many courses do you teach? 1) 1 ( ) 2) 2 ( ) 3) 3 ( ) 4) 4 ( ) 5) above 4 ( )

5. Teaching experience: 1) below 5yrs ( ), 2) 6yrs-10yrs ( ), 3) 11yrs-15yrs ( ) 4) 16yrs-20yrs( ),
   5) 21yrs- 25yrs ( ), 6) 26yrs- 30yrs ( ), 7) 30yrs and above ( )

SECTION B

The following statement aimed at helping assess the relevance and adequacy of Community Health curriculum contents and objectives from your own perception. You are expected to respond to each of the statement based on your perception. The following range is to guide you. SA=Strongly Agree-4 ,   A=Agree,-3, D=Disagree-2, SD=Strongly Disagree-1. Please tick (√) the
box that corresponds to your answer.

S/N	Adequacy and relevance of curriculum contents	SA 4	A 3	SD 2	D 1
6	The number of courses students are exposed to are adequate				
7	The content is overloaded				
8	The content of each course work is adequate				
9	Practical components are adequately covered				
10	The content takes care of professional needs after graduation				
11	The content is lacking relevant concepts				
12	The content exposes students to necessary skills for community health practice				
13	The contents are necessary for students to meet grass root community health				
14	The contents enable students acquisition of practical professional skills				
	Adequacy and relevance of curriculum				

	objectives				
15	The curriculum has clearly stated objectives				
16	The objectives are adequate to meet learners needs				
17	The objectives of the curriculum are not achievable within the period of the programme				
18	The objectives are not in line with the job needs of the students after training				
19	The objectives are not adequate in meeting the learners basic community health knowledge and practical skills				
20	The objectives are meaningful and significant as it promotes acquisition of academic and professional skills				
21	The objectives are relevant to the needs of the community at the grassroots				
22	The objectives enable students acquire adequate practical skills to work after training				
	Assessment techniques				
23	The number of examinations students writeare adequate				
24	The number of continuous assessments are adequate				
25	The evaluations ensures adequate measure of students learning				
26	The evaluations reflect the contents taught				
27	The evaluations are above learners' level				
28	The evaluations adequately cover the basic community knowledge and practical skills.				
	Teaching/learning environment				

29	The school environment provides an atmosphere conducive for learning				
30	School environment is free of distracting noise				
31	There are sufficient classrooms				
32	Toilet facilities are adequate				
33	The school has adequate potable water supply				
34	There is cordial relationship among teachers				
35	The students relate well with each other				
36	Rules concerning cleanliness are always maintained				
37	The school clinic adequately meets staff and student needs				
	Teaching time allotment				
38	The time allocated to courses are inadequate				
39	There is need for more hours to sufficiently cover the curriculum				
40	Though regular in class I always rush to complete courses				
41	The courses are adequately covered during the programme				
	SECTION D **Please indicate your opinion on the following options Always=4, Often=3, Sometimes=2 or Never=1** **Students attitude to learning**	**Always** **4**	**Often** **3**	**Sometimes** **2**	**Never** **1**
42	Students are regular to classes				
43	Students are punctual				
44	Students participate actively in class work				

S/N						
45	Students make personal readings on topics taught in class					
46	Students consult teacher on academic problems					
	Teaching methods used in learning/teaching process					
47	Questions					
48	Role play					
49	Group work					
50	Lecturing					
51	Discussion					
52	Presentation					
53	Demonstration					
54	Field trips/excursions					
55	Project method					
56	Analogy/simulations					
57	Guided discovery					
58	Textbooks and handouts					

SECTION C

Factors that hinder effective implementation of community health curriculum

This section is to illicit the factors that hinder effective implementation of community health curriculum. The options are either **Yes or No**

S/N	ITEMS	YES	NO
59	Lack of motivation of tutors		
60	Students' indiscipline		
61	Inadequate teaching materials		
62	Lack of funds		

63	Inadequate in service education		
64	Inadequate staff		
65	Programme overload		
66	Insufficient materials for practicals		

SECTION D

QUESTIONNAIRE ON INSTRUCTIONAL MATERIALS ASSESSMENT SCALE (IMAS)

Instruction: Read the statement below and tick anyone of the responses on the right hand side at the end of each statement. The responses are 4 = Quite sufficient, 3 = sufficient, 2 = not sufficient, 1= completely insufficient

S/N	Items	Quite sufficient 4	Sufficient 3	not sufficient 2	completely insufficient 1
75	Classrooms large enough for at least 50 students				
76	Blackboard or Tempo board				
77.	Current Charts				
78.	Library with at least 5000 current and relevant journals, textbooks.				
79	Recommended Textbooks				
80	Well equipped Practical Demonstration room at least 50 students				
81	Enough Computers				
82.	Field work e.g. clinical posting				
83.	Simulations (models, life size dolls)				

84.	Electricity facilities with generating set				
85.	Real objects				
86.	Laboratory with adequate facilities for at least 50 students				
87	Functional Internet services				
88	Health centre well equipped for practical				

Thank you for your time

QUESTIONNAIRE ON EVALUATION OF COMMUNITY HEALTH CURRICULUM IN COLLEGES OF HEALTH TECHNOLOGY IN SOUTHWESTERN, NIGERIA

Department of Human Kinetics and Health Education
Faculty of Education University of Ibadan, Ibadan

Students learning outcome tests (SLOT)

(Questionnaire to be completed by final year students)

Dear Respondent,

I am a post graduate student of the above named Institution .I am conducting a research on the Evaluation of Community Health Curriculum in Colleges of Health Technology in Southwestern Nigeria. This questionnaire is purely for research and academic purposes and your participation is voluntary. Please supply responses to all the items provided and your participation is voluntary at any stage of this response. The outcome of this work may serve as input to decision making process in the revision of the curriculum. Your prompt cooperation is needed to make this study a success. I assure you that all information given will be treated with utmost confidentiality. Thank you.

Yours sincerely,

Francisca C. Adebayo

SECTION A

Please fill in the information:

1. Name of School: ………………………………………….

2. State: …………………………………………………….

Please tick (√) the box that corresponds to your answer

3. Age: 1) 15-19 yrs (   ) 2) 20-24 yrs (   ) 3) 25-29 yrs (   ) 4) 30 yrs and above   (   )

4. Sex: 1) Male   (   )   2) Female   (   )

SECTION B

QUESTIONNAIRE ON STUDENTS BASIC PRACTICAL SKILLS (QSBPS)

Please answer all questions

Please circle the most correct answer

Time allowed is 30 minutes

5. Immediately after delivery of the placenta and membranes, the first priority is to

a. Give baby to mother

b. Inspect the perineum for laceration

c. Examine the placenta

d. Check that uterus is well contracted

6. The ingredients for salt sugar solution include

a. 8 leveled teaspoon sugar

b. 4 leveled teaspoon sugar

c. 1 leveled teaspoon sugar

d. 4 leveled teaspoon salt

7. A pregnant woman is given ……… doses of tetanus toxoid

a. 2 doses

b. 3 doses

c. 4 doses

d. 5 dose

8. The following are important during home visit except

a. A friendly approach

b. Kindness and empathy

c. Economic status of the client

d. Humility and tact

9. What would you do if a person is having convulsion or fit

a. Force the jaw open to protect the teeth and place the person on the side

b. Prevent the person from hurting himself, place on the side and ensure adequate respiration

c. Run to find a more trained person than myself and ask for help

d. Shake and shout to make him get up and stop hurting self

10. What are the symptoms of dehydration?
a. Dry mouth, passing a lot of urine
b. Skin pinch, goes back slowly, sunken eyes
c. Skin pinch goes back quickly in shape, fever
d. Coughing, night blindness

10. In checking a child's temperature the first thing is to
a. Clean the thermometer
b. Insert the thermometer in the child's axilla
c. See the level of the mercury and check down if necessary
d. Use your hand to touch the child's body

12. How would you stop bleeding from a wound?
a. Clean it with boiled water and start antibiotics
b. Put kerosene on the wound and put injured part raised
c. Put him on the left side and refer
d. Raise the injured part and make a compressing dressing

e. 13. In the use of the standing other, the first thing to do is
a. Make you client comfortable
b. Welcome the client
c. Open the standing order and go straight to complaints
d. Check the section that corresponds with age then complaint of the client

14. In the use of the treatment of minor ailment, the first thing to do is
a) Make your client comfortable
b) Welcome the client
c) Open the standing order and go straight to complaints
d) Check the section that corresponds with age then complaint of the client

SECTION C

QUESTIONNAIRE ON STUDENTS BASIC COMMUNITY HEALTH KNOWLEGDE (QSBCHK)

Circle the most correct answer

15. Which of these is *NOT* an effective speaking skill?

a) Gesticulation,

b) Clear pronunciation.

c) Good eye contact.

d) Tone of voice.

16.   Blindness could be caused by one of the parasites listed below:

a) Onchocerca volvulus.

b) Druncunculus medinensis.

c) Wuchereria bencrati.

d) Schistoma mansoni.

17.   The following are some disorders of the eye *EXCEPT*

a) Trachoma.

b) Choriod.

c) Conjunctivitis.

d) Cataract

18.   The following are signs and symptoms of Otitis Media, *EXCEPT*

(a.) Fever,

b) Vomiting.

c) Tenderness.

d) Discharge,

19. The primary teeth developed at the age of 6 months to two years include all *EXCEPT*

a) Incisors.

b) Premolar.

c) Canines.

d) Molars

20.   These factors aid caries formation, *EXCEPT*

(a.) Bacteria.

(b) Calculus.

c) Tooth.

d) Food.

21. Specific gravity of urine can be measured by:

a) Urinalysis.

b) Urinometer.

c) Uristix,

d) Multistix

22. Presence of sugar in urine indicates:

(a) Diabetes,

(b) Hypertension,

c) Hepatitis

d) cardiac disease

23. Confirmatory test for tuberculosis include the following EXCEPT

a) Sputum test

b) Cerebrospinal fluid test

c) X-ray.

c) Heaf-test

24. Exclusive breast feeding means:

(a) Giving breast milk to the baby and little water for thirty-six months.

(b) Putting baby *on* mother's breast within 30 minutes of delivery and for 6 months
without water,

(c) Giving milk, water and abidec to baby for 6 months.

(d Giving little milk to baby and feeding at leisure time for six months.

25. Regular growth monitoring:

a) Aid early detection of growth and development problems.

b) Prevent early identification of children at high risk of developing
malnutrition.

c) Disrupt immunization programme and other preventive measures.

d) Prevent focusing scare resource on recipient who need them most.

26. Coitus interupus is a. term used to describe:

a) Premature ejaculation.

b) A test of infertility.

c) The safe period,

d) Withdrawal before ejaculation.

27. The following are effects of alcoholism, *EXCEPT* .

a) Increase heart beat and blood pressure.

b) Loss of job and bad breath.

c) Ability to face lifes problems.

d) Increase frequency of urination.

28. Community mental health is one component of PHC that is aimed at the following *EXCEPT*

a) Promoting mental wellbeing.

b) Prevention of mental disorders,

c) Rehabilitation of the mentally ill,

d) Proness to accident

29). One of the following is NOT a characteristic of the aged

(a) Fainty senses and memory

(b) Painful joints and limbs

(c) Eating too much

(d) Wrinkled skin and altered posture

30). Essential drugs are drugs that:

(a) Meets the health care needs of the rich

(b) Meets the health care needs of the majority of the people

(c) Meet the needs of the mother and children only

(d) Meet the needs of HIV/AIDS patient

31). One of the following is NOT a procedure for pre-packing and dispensing drugs

(a) Obtain drugs for prepacking according to procedure

(b) Purchase of drugs by community development committee

(c) Prepare drug packages for dispensing

(d) Dispense drugs as prescribed in the treatment card.

32) All are components of PHC but one

a) health education

b) provision of essential drugs

c) referral system

d) immunization

33) PHC principle include all except

a) universally accessible

b) appropriate technology

c) culturally acceptable

d) grass root health provision

34) Reasons for advocacy include all but one

a) build support for a course or an issue

b) influence change of legislation

c) influence opinion leaders

d) identify problems for the leaders

35) Societal perception concerning poliomyelitis infection is

a) it is caused by evil spirit

b) injection

c) hereditary

d) air pollution

36) All except one are principles of health education

a) simplicity

b) clarity

c) difference in people's perception

d) adaptability

37) One of the following is a reason for community diagnosis in PHC

a) it ensures equity in coverage

b) it ensures efficacy of PHC service

c) it ensures patient care in PHC service

d) it provides baseline for future measurement of changes in community health problems

38) The duties of a CHEW i

a) consultation at the health facility

b) community based

c) clinic based

d) community and clinic based

39) The best time to commence infant immunization is

a) at birth

b) at 4 weeks

c) at 6 weeks

d) whenever the mother can come

40) All the following are problems of Drug Revolving Fund (DRF)

a) delay in payment

b) adequate support by the local authority

c) sudden price increase

d) credit without equivalent subsidy

41) The importance of two- way referral system include all but one

a) ensure continuity of care

b) ensure adequacy of care

c) cases are treated at appropriate level

d) Cases treated at community level

42) All the tools used in community diagnosis except

a) Form F

b) form H

c) form C

d) form G

43) Pharmacology can be defined as

a) the study of the relationship between medical practices and the society

b) a branch of science that studies the action and uses of drugs in man and other animals

c) the study of the mind

d) the study of people's behaviour

44) Contraindications means

a) a sign or symptom suggesting that a certain line of treatment should be avoided

b) unfavourable or harmful result

c) ability to endure drug administration

d) ability to develop no adverse effect

45) PHC strategies to achieve objectives include one of the following

a) multi sectorial approach

b) scheme for essential drugs

c) organized workshop

 d) planning to move to tertially level

46) Outreach immunization session are conducted in the following areas

a) market place

b) schools

c)   health facility

d) chief's place

47) In discussing the principles of PHC, accessibility simply means

a) within the reach of the people

b) health care provider is simple

c) health facility is available

d) clinic staff is adequate

48) Personal factors that positively influence health include the following except

  a) attitude of the health system

  b) personal hygiene

  c) education

  d) awareness about health matters

49) One of the following is a method used in community diagnosis

a) health talk

b) weighing

c) Rally

d) review of existing record

50) One of the following is not correct about community.

a) group of people living in a specific geographical boundary

b) may consist of different sub groups

c) there is usually a leader

d) communities are always homogeneous

51) The following should be the objective of a good learning objective EXCEPT

a) equivocal

b) relevant

c) observable

d) feasible

52) One of these is a minor tranquilizer

a) Largactil

b) diazepam

c) promethazine

d) piriton

53) Factors that determine the drug selection for a specific health facility include all but one

a) prevailing health problems

b) availability of funds

c) availability of health workers to cover many patients

d) acceptability

54) All are types of personality disorders EXCEPT

a) Schizoid personality disorders

b) Paranoid personality disorders

c) anal personality

d) hysterical personality disorders

55) Methods of learning includes all but one

a) Forgetting

b) reading

c) listening

d) feeling

56) Functions of the family includes all EXCEPT

a) sexual regulation functions

b) economic support

c) socialization functions

d) mechanical functions

57) These are major classes of handicapped EXCEPT

a) Physical handicapped

b) Psychologically handicapped

c) mentally handicapped

d) social handicapped

58) The following resources are available for the disabled EXCEPT

a) Vocational institute for the disabled

b) Braile library for the blind

c) Sport and recreational centre for the disabled

d) The village square

59). Which of the following is NOT psycho-social problems common with aged?

a) Loneliness

 b) Energetic tendency

 c) Poverty

 d) Irritability

60). Etiquette can be defined as

 a) a system which guides and controls the moral behaviour and manifest in character and mind

 b) code of manners behaviours and action

 c) qualities a person has learned to believe are important and worthwhile

 d) occupation which demands a high standards of education well

61) All but one are characteristics of traditional health care delivery

 a) it is scientifically sound

 b) it is poorly organised

 c) there is no standard measurement of dosages

 d) it is unhygienic

62) Sources of health care provision in Nigeria include all but one of the following

 a) Diagnostic services

 b) Prayer house

 c) orthodox

 d) homeopathetic services

63) One of the underlying concepts of primary health care is that

 a) everyone receives curative services

 b) everyone attains good health status by the most effective and efficient means

 c) individuals received health services from health workers in the year 2006

 d) every rural dweller receives medical services

64) School food vendors should do medical examination

a) three times in a year

b) once in ten years

c) twice in a year

d) once in 5 year

65) One of the following is *NOT?*non-expendable item in the laboratory:

(a Disposable syringes

b) guaze

c) miscroscope

d) cotton wool

Thank you for your time and best of luck as you practice this noble profession

APPENDIX VI

Practical Procedure Checklist

Evaluation of Community Health Curriculum in Colleges of Health Technology in Southwestern Nigeria.

Department of Human Kinetics and Health Education

Faculty of Education University of Ibadan, Ibadan

Name of School ....

Procedure: Visual Acuity Testing using Snellen's chart

Time allowed: 3mins

S/N	PROCEDURE	Mark obtainable	Marks scored	Remarks
1.	Hang the chart on a light coloured wall	1		
2.	Use ruler or tape measure to measure 6 metres from chart	1		
3.	Explain the purpose and procedure to client	1		
4.	Sit or stand client 6 meters from the chart	1		
5.	Test both eyes and then each eyes	1		
6.	Record and give appropriate feedback to client	1		
	Sub-total	**6**		

Name of procedure: Estimation of blood Pressure

Time allowed: 2mins

S/N	PROCEDURE	Mark obtainable	Marks scored	Remarks
1.	Explanation of purpose and procedure	1		
2.	Testing of sphygmomanometer and stethoscope	1		
3.	Connect the tube to the measuring part of the apparatus	1		
4.	Proper positioning of the client and instrument	1		
5	Taking the blood pressure reading	1		
6	Accurate recording of reading	1		
7	Interpretation	1		

8	Appropriate instruction on follow-up	1		
	Sub-total	**8**		

Name of procedure: Preparation and administration of Salt Sugar Solution (SSS)

Time allowed: 5mins

S/N	PROCEDURE	Marks obtainable	Marks obtainable	Remarks
1	Preparation e.g			
	Explanation of purpose and procedure	1		
	Washing of hands with soap and water	1		
2	Checking and assembling S.S.S.			
	equipment	1		
	Spoon,	1		
	sugar,	1		
	salt,	1		
	clean water,	1		
	bowl,	1		
	two mineral bottles,	1		
	funnel,	1		
	cup			
3	Preparation of S.S.S			
	Half levelled teaspoonful of salt	1		
	4 cubes or 8 levelled teaspoonful of	1		
	granulated sugar	1		
	One beer or two mineral bottles of clean	1		
	water			
	Mixing of contents			
4	Appropriate instruction and administration			
	- storage of mixture	1		
	- frequency of administration	1		
5	Recording and Follow-up instruction e.g			
	When to prepare			
	When to discard solution	1		

		1		
	Sub-total	**18**		

Name of procedure: Measurement of Nutritional Status using sharkir strip (
Arm circumference measurement)

Time allowed: 2mins

S/N	PROCEDURE	Marks obtainable	Marks scored	Remarks
1	Explanation of purpose and procedure	1		
2	Pick up sharkir's strip	1		
3	Ensure sharkir's strip has marks	1		
4	Tell mother to retrieve the cloth on the left or right upper arm of the child	1		
5	Correct positioning of the child	1		
6	Apply the sharkir's strip appropriately to the mid way between the elbow joint and shoulder joint	1		
7	Document findings correctly	1		
8	Give appropriate information about what to do about reading and when to call back	1		
	Sub-total	**8**		

GRAND TOTAL SCORE: 40

GRAND SCORES OBTAINED:........................

APPENDIX V

FOCUS GROUP DISCUSSION GUIDE

EVALUATION OF COMMUNITY HEALTH CURRICULUM IN COLLEGES OF HEALTH TECHNOLOGY IN SOUTHWESTERN, NIGERIA

Department of Human Kinetics and Health Education
Faculty of Education University of Ibadan, Ibadan

Dear Participant,

I am a post graduate student of the above named Institution conducting a research on the Evaluation of Community Health Curriculum implementation in Colleges of Health TechnologySouth-West Nigeria. I thank you for accepting to participate in this discussion which is part of a research project. The outcome of this work may serve as input to decision making process in the revision of the curriculum.In this discussion, no response expressed by the discussants is judged right or wrong. Permit us to use a tape recorder because there is limit to what the brain can remember and we do not want to forget the beautiful experiences we are here to share. Your cooperation is needed to make this study a success. I assure you that all information given will be treated with utmost confidentiality and will not be used against anybody. Please express your views with utmost honesty. Thank you.

Yours sincerely,

Francisca C. Adebayo

S/N	MAIN QUESTIONS	FOLLOW-UP QUESTIONS
1.	What is your opinion about the community health programme curriculum	Is it the revised curriculum or not
		When was it revised
		When was it implemented
		What necessitated the revision
		How can you weigh the curriculum in relation to the certificate awarded?
		Are all the courses relevant for your practices? If no name them
		Which courses would you have added to if allowed

2.	What is your opinion about the duration of the programme	Adequate to cover all courses Too long duration Adequate to acquire proficient practical skills for community experience Sufficient time for each course on the time table
3.	What is your opinion on the availability and adequacy of facilities to implement this curriculum	What facilities are available for easy implementation? What facilities are on ground for practical experiences? Are the tutors adequate in number and skills? Are you aware of any in-service training for your tutors?
4.	What teaching methods are commonly employed in teaching the curriculum	What teaching/learning aids do you have in the school? What methods you your teachers mostly use? What methods you think can hinder learning? What methods can enhance learning
5.	How do you perceive your school environment in relation to teaching/learning	What do you consider to be a conducive environment for teaching and learning how would you like the environment to be
6.	What is your opinion about time allotted to teaching of courses	It should be reduced It should be increased It is adequate
7	What challenges do you encounter with this curriculum	
8.	What recommendations could you make for improvement of the curriculum	

Practical skill test: Study participant demonstrating the preparation of salt and sugar solution to a client while research assistant grades using the practical skills checklist.

Study participants writing the knowledge test while researcher and research assistant invigilates under examination condition.

Practical skill test: Study participant demonstrating the use of sharker's stripe to measure the mid- arm circumference to assess the nutritional status of a baby using a doll while research assistant grades using the practical skills checklist.

Appendix vii

Practical skill test: Study participant demonstrating blood pressure estimation using the Sphynomanometer while research assistant grades using the practical skills checklist.

Practical skill test: Study participant demonstrating visual acuity testing using the Snellen's chart.

Researcher at the centre flanked by study participants and to the extreme left of the researcher is some of the research assistants.