



**MASTER OF SCIENCE IN TECHNICAL EDUCATION  
(MECHANICAL ENGINEERING)**

**A STUDY OF TECHNICAL/TECHNOLOGY EDUCATION IN THE GAMBIA  
UPPER BASIC SCHOOLS**

**BAI NDURE**

**STUDENT NO: 103609**

**M.Sc.T.E(ME)**

**DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)  
ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)  
THE ORGANIZATION OF ISLAMIC COOPERATION (OIC)  
DHAKA-BANGLADESH**

**SEPTEMBER 2012**

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**SEPTEMBER, 2012**

A Study of Technical/Technology Education in The Gambia

Upper Basic Schools

Thesis Submitted in Partial Fulfillment of the Requirements of the Degree of  
**Master of Science in Technical Education (Mechanical Engineering)**

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THE ORGANIZATION OF ISLAMIC COOPERATION (OIC)  
DHAKA-BANGLADESH

SEPTEMBER, 2012

## DECLARATION

This is to certify that the work presented in this thesis is the outcome of the investigation carried out by **Bai Ndure** under the supervision of **Prof. Dr. Md. Abdul Awal Khan**, Department of Technical and Vocational Education (TVE), Islamic University of Technology (IUT), The Organization of the Islamic Cooperation (OIC), Dhaka, Bangladesh. It is hereby declared that this thesis which is submitted to the university for the degree of Master of Science in Technical Education (Mechanical Engineering), has not or never been submitted by me for a degree at any other university or educational establishment.

---

**Prof.Dr.Md.Abdul Awal Khan**

Supervisor

Visiting Professor, TVE Dept, IUT

---

**Bai Ndure**

Student No.103609

M.Sc.T.E (ME)

## ACCEPTANCE

We hereby recommend that this thesis prepared by Bai Ndure entitled “**A study of Technical/Technology Education in The Gambia Upper Basic Schools**” has been accepted as fulfilling the part of the requirements for the degree of Master of Science in Technical Education (Mechanical Engineering),September,2012.

Committee:

-----Supervisor  
**Prof.Dr.Md.Abdul Awal Khan**  
Visiting Professor, TVE Department, IUT

-----External Member  
**Dr.Md.Mohsin Uddin**  
Adviser of Training & Research  
Bangladesh Open University

-----Member  
**Prof. Dr.Che kum Clement**  
Head, TVE Department, IUT

-----Member  
**Prof.Dr.Khushi Muhammad**  
Visiting Professor, TVE Department, IUT

-----  
**Prof.Dr.Che kum Clement**  
**Chairman &**  
Head of Department of Technical and Vocational Education (TVE)  
Islamic University of Technology (IUT),Dhaka-Bangladesh

## **DEDICATION**

**TO;**

***MY MOTHER ISATOU CHAM AND MY LATE FATHER NGORR NDURE, WHOSE GENEROSITY AND SELF-SACRIFICE ENABLE ME TO OBTAIN THIS ACADEMIC STATUS. TO MY BELOVED WIFE AND CHILDREN MRS ANNA JOBE, SAFFIE NDURE, NGORR NDURE, NDEY NDURE AND FATOU NDURE AND THE ENTIRE FAMILY OF MARTIN KUNDA FOR THEIR ENDURANCE DURING THE PERIOD OF MY STUDIES. MAY ALLAH (SWT) BLESS THEM ALL AMEEN.***

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## ACRONYMS AND ABBREVIATIONS

ABET	Adult Basic Education and Training
ASGIG	Accelerated and Shared Growth Initiative for The Gambia
COLTS	Culture of Learning, Teaching and Service
FET	Further Education and Training
FETC	Further Education and Training Certificate
FETQAB	Further Education and Training Quality Assurance Body
GTTI	Gambia Technical Training Institute
H E	Higher Education
HNC	Higher National Certificate
HRD	Human Resource Development
HTC	Higher Teachers Certificate
LSEN	Learners with Special Education Needs
JIPSA	Joint Initiatives for Priority Skills Acquisition
MOBSE	Ministry of Basic and Secondary Education
MEC	Member of the Executive Council
MTEF	Medium-Term Expenditure Framework
NBFET	National Board for Further Education and Training
NCFE	National Committee on Further Education and Training
NGO	Non-Governmental Organisation
NQF	National Qualifications Framework
NVTA	National Vocational Training Act
PTC	Primary Teachers Certificate
RPL	Recognition of Prior Learning
SDAS	Sector Education and Training Authorities as defined in the Skills Development Act
SYSTEM	Students and Youth into Science, Technology, Engineering and Mathematics

## **ABSTRACT**

Historically, technical/technology education has always been perceived as "inferior education". It is time for this perception to change. With the high unemployment rate in the country, and the huge skills shortage, it is imperative for society to take a critical look at the role of technical /technology education in our current curriculum and that the present government looked more closely at the impact that the proper provision of technical/technology education would do to the country as a whole.

This study focuses on the current status of technical/technology education provision in the country and the fostering of technical/technology education at the Upper Basic Schools in general. It examines the perceptions of principals, educators and learners towards the following

- The status of technical/technology education provision in The Gambia.
- Gender issues with regard to technical subjects.
- Curriculum appropriateness towards the employability and familiarity with the new FET curriculum
- Value of technical education for Gambian society
- Pedagogics related to the technical/technology education curriculum

Several important findings that emerged from the data suggested that:

- Technical education is viewed as very positive by the youth of The Gambia towards addressing unemployment, skills shortages and for the future growth of the country
- There are gender imbalances with regard to the human resource within the realm of technical/technology education.
- Lack of suitably qualified educators in the new technical field.
- Lack of further training of technical education educators for the future
- Lack of equipment, resources and workshops.
- Preparedness of educators in meeting the requirements to teach the current FET syllabus.

It is imperative for mindset of the general public to change with regard to the perception of the status of technical/technology education in this country, as the youth of today value and respect what technical/technology education has to offer, and for the possibility of what technical /technology education can do for the eradication of the skills shortage dilemma, for addressing the unemployment issue and for the future growth and development of The Gambia.

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the study

In his personal involvement as a technical professional as well as his experience in the field of technical education in the Directorate of science and technology education in the Gambia, the researcher often encountered attitudes from academics, other education personnel as well as the community towards technical education that may be deemed to afford technical education an "inferior" or "low" status. Given these attitudes and the crisis of shortage of technical skills in the Gambia, an initial cursory reading from different articles, journal, magazines and from close quarters, further motivated him to undertake research into the reasons why technical education is viewed in this way. Thus this study is derived from a personal thought and research and contextual imperatives to investigate why technical education in The Gambia, particularly in the Upper Basic Schools in various Districts/Regions,' is regarded as "*inferior education*" and has a "*low status*" attached to it.

Dated as far back, reports have stated that the schooling system was churning out and that too many pupils streamed for academic careers. As a result of this type of education system, many pupils would not be able to find appropriate jobs and would not be qualified for technical posts. There are reports stating that "a paradigm shift from academic-based education to vocational and industrial training is required to boost our economic status and provide jobs for all school leavers. "

According to York (1996:1) a significant amount of work, reports, position papers, and professional pressure in recent years has emerged that expresses the need for technical/technology education in our education system. This need arose around explanations which diminished or ignored the contributions of our existing technical education programs in the country today. This motivated him to ask, taking into consideration recent trends and mandates toward technical/technology education, "have those educators previously initiated into industrial arts been indoctrinated to teach subjects such as woodwork, metalwork and technical drawing only to find the subjects matter has no contemporary relevance and can no longer exist? This further questioned whether the curriculum, activities and equipment of technical education are worldly in nature and of minimal educational value, or was it simply politically incorrect to discuss or support the subject?

Thus this study examines the status of technical education, and some of the arguments for and against technical education, as presented by proponents of technical/technology education. Within the scope of this discussion, an alternative view of the strength, relevance, and value of traditional technical education is presented.

According to Reddy (1995, 10) "the economic growth of any country is directly proportional to the appropriate education system it receives". However, the reality of the situation facing schools today in The Gambia is that the type of education one receives is still too "academic" whilst marginalizing the technical education which would provide youth with appropriate skills, help to eradicate unemployment and eventually prepare the youth for a world of work.

## **1.2 Statement of the problem**

This research study examined the status of Technical/Technology Education in The Gambia Upper Basic Schools.

### **1.3 Objectives of the study**

The objectives of this research study can be described under the following headings viz, general objective and specific objective.

#### **1.3.1 General Objective**

The general objective of this research study was to study the status of technical/technology education in the Upper Basic Schools in the various Districts/Regions in The Gambia.

#### **1.3.2 Specific Objectives**

The specific objectives of this research study were to;

- study the current status of technical/technology education in The Gambia Upper Basic Schools
- examined the perceptions of principals, educators and learners towards the following;
  - i. gender issues with regard to technical subjects.
  - ii. curriculum appropriateness towards the employability and familiarity with the new Further Education and Training(FET) curriculum
  - iii. pedagogics related to the technical education curriculum

## **1.4 Significance of the study/ Rationale**

This study is prompted by a personal rationale, as well as research, policy and other contextual imperatives to investigate why technical education in The Gambia, particularly in the different

Upper Basic Schools in different Districts/Regions," is regarded as "*inferior education*" and had a "*low status*" attached to it?

The experiences and observations of the researcher as a technical professional for years has realized that "academic" subjects are given more prominence over technical education, the reasons for which have often puzzled him. For years still then it was noted that academic subjects were given precedence over the technical subjects. It also became apparent that because technical education has a stigma of inferiority attached to it, learners were reluctant to opt for the technical courses offered at school level.

Much of the print media and reports generated controversy regarding the status or prominence surrounding technical education. The general public, teachers and learners did not give students attending a technical/technology institutions the same status or respect as a student attending a university."

In the period of transition to democracy from 1994 to date the Ministry of Education have made policy changes to Technical Education in the Further Education and Training (FET) phase with regard to the introduction of Outcomes-Based Education (OBE) and the marginalizing of technical subjects. The question that arises from these changes is, "Is this a deliberate action, on whose part and why?" It is yet to be seen how these changes will affect the fostering of technical education in The Gambia in the future.

Given the personal and contextual imperatives, the researcher hoped that the study will produce the following benefits:

- the findings that will emerge from his research will contribute to understanding the current status of technical education in The Gambia. The experiences and value of Technical Education for teachers, principals and learners as it is currently fostered in The Gambia Upper Basic schools will be of benefit to National and Provincial policy makers, Education Department Officials, Principals, educators, parents of school going learners, the private sector, the Schools Governing Bodies (SGB's) and researchers interested in finding out about the current Status of Technical Education in The Gambia.
- new ideas on the current status of Technical education, its value for teachers , parents and learners, can be incorporated into selection of courses at grade 10 level for learners ,
- serve to inform learners who decide to follow a Technical/Technology course at schools



- will inform educators of technical/technology education in ways of improving the status of technical /technology education in The Gambia
- Curriculum development specialists and authors who prepare Technical/Technology material for learners , including management of effective curriculum courses offered at schools for teachers and the management staff, as well as lecturers offering Technical/Technology classes at University in Teacher Education or the Engineering Sciences, and relevance of technical subjects on employability for the private sector.

### 1.5 Research Questions

Technical Education is an important part of the school curriculum, which is influential on the holistic development of the child, the needs of the learners and the changing demands of the economy and society. Unfortunately, there is still a widespread but erroneous impression of the artisan or technician as a man in dirty overalls who carries a tin lunchbox and goes to work by bus.

It is argued that teachers, principals, the general public and pupils seem to perceive technical education as "**inferior education**". Anecdotal evidence suggests that management staff at some schools have been known to make statements about technical education that is derogatory, e.g. *"that 'F' class won't make the grade in the academic stream, let them all do the workshop subjects"*. Such remarks have made an indelible mark on me as to why is Technical/Technology Education in The Gambia is perceived with such a "low or inferior" status. Are current stakeholders of the same opinion that Technical /Technology education in our education system is "inferior education"? This statement frames the following research questions around how Technical Education is perceived, whether it is being fostered at schools, and how is it being fostered:

- What is the current status of Technical/Technology Education in selected Technical Upper Basic Schools across the whole Regions/Districts in The Gambia?
- How do principals, educators, and learners' value/perceive Technical/Technology Education as it is currently fostered at schools?

## 1.6 Assumptions

The assumptions for this research study included that;

- the current status of technical/technology education in the Upper Basic Schools had been regarded as inferior.
- The technical subjects at the Upper Basic schools in the The Gambia are not given the due consideration as compared to academic subjects
- The value of technical education for the youth of The Gambia does not adequately prepare workers to meet the needs of the country.
- gender involvement in technical education is null and void
- Curriculum provision and pedagogy of technical/technology education needs more support and development.
- Perception of principals, educators and students toward technical/technology education in the Upper Basic Schools is not upto the mark/standards because of the low status.

## 1.7 Limitation of the study

This research study was limited in that it was to be conducted throughout the whole geographical regions in The Gambia. There are six regions with total of **84** Upper Basic Schools but such a large number was impossible to be included in this study. Therefore **30** schools were selected purposively from six regions as the sample for the study.

## 1.8 Definitions of Terms and concepts

**Researcher's note:** For the purpose of this study it was necessary to define certain key terms as listed below. Thereafter the researcher presents certain acronyms and abbreviations that would be used in the study.

**Apprentice:** An apprentice is a learner of a craft, who is bound to serve, and is entitled to instruction from his employer for a specified term. They are generally beginners or novices willing to learn a trade or craft.

**Artisan:** They are referred to as artists who create with their hands. Their job entails the practical execution of tasks as they have the ability and practical knowledge to carry out the plans drafted at higher levels.

**Status:** According to the Oxford dictionary', the word status refers to a social position, rank, and relation to others, relative importance, position of affairs, unchanged position or the previous position. However, in this study it will refer to position of affairs, condition, importance and acknowledgement that technical education receives as opposed to the academic subjects.

**Technical education:** In the context of this research, technical education is also refer to vocational, career or industrial education and would be used interchangeably. This type of education refers to a form of education that carries the connotation of specific knowledge and understanding of the theory of technical skills, applied sciences and skill. Technical education is also regarded as education to earn a living in an occupation in which success is dependent upon technical information and understanding the laws of science and technology as it is applied to modern designs. Technical education in the past at ordinary school level involved the study of basic techniques, industrial arts, technical drawing, woodwork and metalwork etc, and in some selected schools as technical subjects.

**Technology Education:** Technology education integrates the intellectual with practical and cognitive skills and contributes to the development of the individual as informed members of a technological society. The processes of perception (learning to see technology), generation (learning to create and confront), and critical thought (learning to question and challenge) involved in developing technological capability are central. Technology education is also the use of knowledge, skills and resources to meet human needs and wants and to recognise and solve problems by investigating, designing developing and evaluating products, processes and systems.

**Technical School:** Refers to any educational institution, generally at secondary level that which offers programmes of technical education aimed at training pupils in the knowledge know-how of a particular course, for example motor mechanics, panel beating, electronics and fitting and

turning. Certain courses are deemed absolutely necessary in a particular field of study regardless of the specialisation of the interests.

**Vocational Education:** For this study vocational education is regarded as skills- based programme that revolved around instruction and training in commerce, agriculture, and house craft or any trade or industry. This is the type of education, which prepares someone for a trade or profession, although there should be no difference between a trade and a profession, it has been stated that people who work with their hands have a trade and those that think have a profession. For the purpose of this study vocational education will be used interchangeably with Technical Education to mean one and the same thing.

**Academic Education:** A type of education that is scholarly, logical, belonging to a university, abstract, formal or theoretical in nature as opposed to practical. Classical and literary rather than it being technical.

**Learning Field:** A learning field is a category that serves as a home for cognate subjects, and that facilitates the formulation of rules of combination for the Further Education and Training Certificate (FET) (General). This term is used in the new FET curriculum to denote various disciplines and occupational fields in the world of work and is therefore designed to provide a framework for organising qualifications in a coherent and coordinated manner.

**A Subject:** Historically, a subject has been defined as a specific body of academic knowledge. This understanding of a subject laid emphasis on knowledge at the expense of skills, values and attitudes. Subjects were viewed by some as static and unchanging, with rigid boundaries. In this research study a subject will be used to denote a specific body of academic knowledge, for example; technical drawing, woodwork, metalwork, etc.

**Poor Black:** A number of classes of poor black people.

**Poor White:** A number of classes of poor white people.

**Kaffir Work:** The word 'Kaffir' derived from our mother tongue referring to non believers paganism, whose professional work or activities are not done in the formal way and only focuses on the decentralize system

## CHAPTER II

### REVIEW OF RELATED ITERATURE

#### 2.1 Introduction

In this chapter the researcher explored the available literature on the history and development of technical education as related to the status of technical/technology education in The Gambia. It covers a critical review of literature with regard to the historical and current perceptions based on the status as well as provision of technical/technology education in The Gambia.

This chapter traces the historical development of technical education in The Gambia as well as some theories underpinning technical/technology education. At the same time it explores reasons and possible explanations that may have accounted for technical education being regarded as "*inferior education with a low status*". Reflecting on past and present curricula offered in Gambian Upper Basic Schools, technical/technology education has always been marginalised, in preference to the so-called 'academic subjects'. This research study was informed by a literature review of past perceptions on the historical development of technical education in The Gambia and on reasons that accounted for technical education being regarded as "*inferior education*"

According to Badroodien (1998:2): "the history of technical/vocational education in the African countries has always been related with issues related to **indigence, social and educational inferiority, and mental backwardness**. He explains this preoccupation through the complex ways in which indigence and inferiority issues meshed with social debates about the 'useful citizen', social order, and notions of the (presumed) social and work skills that workers (particularly males) needed in urban areas. These debates on the intermeshing of class, race and quality of provision were crucial in the formulation of technical and vocational education programmes in Africa in the period 1920 to date. In that respect, vocational education provision was regarded as critical for the 'salvation' of working class, poor and indigent children in urban areas, both in helping regulate and socialise the growing numbers of submerged 'poor white', African and coloured urban workers and inhabitants in the cities, and to ensure that impoverished learners in rural areas developed the skills and knowledge to prosper there - and therefore, not migrate to the cities".

## **2.2 A Brief history of Technical Education in The Gambia**

This research attempts to examine the history of the origins of technical education in The Gambia, as postulated by several writers, e.g. Smuts (1937), Malherbe (1977), Le Roux (1985), Pittendrigh (1988) and Chisholm (1992), Badroodien (1998). References are made to the transformation that technical education had experienced throughout the years of its emergence into the existing school curriculum, as Technology Education in the General Education and Training (GET) phase and as Manufacturing, Engineering and Technology, in the new Further Education and Training (FET) curriculum of today.

As will be demonstrated, the historical context of technical and vocational education provision has shaped the nature and extent of such provision for different social classes and social groups in this country, as highlighted by Snedden and Prosser in Camp (1983).

This section makes four observations as cited in Badroodien (1998:1) that:

- Technical and vocational education provision before 1910 was regarded as suitable only for non-whites.
- After 1910, the Union Government reversed this policy emphasis and sought to limit the provision of technical and vocational education to predominantly white recipients.
- The categories of technical and vocational education came to be distinguished largely on class and race grounds after 1910. Technical education provision was clearly distinguished in policy from industrial/vocational education; the latter being more focused on social welfare concerns.
- With regard to vocational education, provision there was a greater emphasis, historically, on rehabilitative and ameliorative functions, than on a training function. (Badroodien 1998: 1)

The history of technical and vocational education provision in The Gambia has different origins, and their development was informed by quite different contexts. Malherbe (1932) as cited in Badroodien (1998) has noted that "the origin of industrial education is not identical with that of technical education. Technical education arose out of the needs of the growing industries, while industrial education developed out of the desire to help the poor whites". (Malherbe 1932: 55). It is an important point to consider if one is looking at the status of technical education in the

country, as this statement tends to highlight some of the reasons that account for technical education having a **'low or inferior status'** because of the association of technical education with industrial education. In response to the statement above, The Gambia is presently faced with vast contexts of unemployment and skills shortages, and one wonders whether the proper provision of technical education as it is currently made available at schools in The Gambia today will alleviate this problem, as demonstrated historically.

### **The Stigma of Inferiority**

It is notable that even in the period that it was solely provided for white learners, "technical education continued to be stigmatized as 'kaffir work' and looked upon by white workers as degrading and unacceptable" (Badroodien 1998:3), thus affecting the status of technical/technology education in The Gambia Upper Basic Schools. The statement above further reinforces the original proposition that technical/technology education has been regarded as **"inferior education with a low status"** and is seen by many as being degrading and unacceptable.

Badroodien (1998: 3) further explains that "Four industrial schools (reformatories) were founded between 1913 and 1917 in terms of the Children's Protection Act, Act 25 of 1913. Until 1917 when their administration was taken over by the Union Education Department, these were under the control of the director of Prisons. This added the stigma of inferiority to the existing stigma of poverty attached to industrial education".

The status of industrial schools generally improved from the 1930s, even though it was often assumed firstly that children in government industrial schools were of lower intelligence than those in provincial industrial schools that focused on trade training, and secondly that instruction at government industrial schools focused predominantly on social order and welfare needs. From the 1930s, the Union Education Department made concerted efforts to change the narrow conception of vocational education at the different points of provision. The department was particularly concerned about the relationship between vocational education, work and society, as well as about the effectiveness of the social reproduction of work discipline within the system of industrial and technical training. This concern was further emphasized by the boom in secondary industry from the middle to late 1930s, which led to more attempts by the educational authorities to reorganize the system of vocational and technical education in The Gambia. In fact, the



unprecedented industrial expansion that accompanied the start of the Second World War in 1939 drew particular attention to the unsatisfactory state of technical and vocational education in The Gambia. By that time, despite attempts to address the growing gulf between the provisions of technical, vocational and industrial education and the availability of trained technical workers, the Union Education Department had been unable to change learner and employer perceptions of the merits of industrial and vocational provision and so increase learner participation.

Technical and vocational education and training have many different meanings, which are shaped by wider social, political, and economic contexts. British roots of the technical education curriculum in The Gambia, the demand for technical education to be made available to white youth was an outgrowth of industrial development that happened in the late 1800s. It was linked to mining and the development of railways, harbours, and small engineering workshops in urban centres that developed. Historians note that technical education referred to a type of education which had reference to manufacturing and industrial pursuits and the scientific principles underlying these (Smuts, 1937: 97).

As cited in (Smuts, 1937; Pittendrigh, (1988); Chisholm 1992), "the origins of the formation of technical colleges and later, technikons, can be traced back to this era, and to this particular framing and vision of technical education. "The general educational system, as well as the system of technical/technology education in The Gambia, evolved from British systems, as we have seen earlier".

Layton (1984: 21-35) examines the relationship between the school science curriculum and industry in England to demonstrate how school science has remained separate from demands for utility and application. Science had to be justified in the curriculum in the same terms as classics and mathematics was justified, if it is hoped to make any inroads (Layton, 1984: 24)". While science was becoming well-established in the school curriculum, an alternative road of technical education for artisans was also being developed in England.

Layton also argued that the alternative technical education route as constructed in England in the late nineteenth century was, in practice, not greatly different from liberal education as far as science education was concerned. The definition of technical education incorporated in the

English Technical Instruction Act of 1889 shows the basis of this argument. Technical education was defined as being limited to instruction in the principles of science and art applicable to industry and not to include teaching the practice of any trade or industry or employment (Layton, 1984: 25, original emphasis). It was this scientific definition of technical education that was adopted in The Gambia around the turn of the nineteenth century. A theory-practice combination developed which required technical colleges to provide the theory part of apprenticeship training, while workplaces provided context-specific work experience. From their inception, the educational task of technical colleges was thus framed in terms of concept formation that would strengthen and expand craft and trade practices.

### **The Gambian Literature**

Findings from the literature study illustrates that technical/technology education in The Gambia did not enjoy any form of privileged status as compared to the so-called academic subjects had received. Information gleaned from a (UNESCO 1979: 70) report suggests that the majority of countries agree that with the introduction of technical and vocational curriculums in the general education at junior secondary level and in some cases at upper primary it has the potential of becoming a powerful tool for democratizing education. As such technical studies and the related occupations may turn out to become a positive option for young people, which was not the case in the past when the highest value was placed on traditional academic studies while technical education were considered appropriate for the less bright.

According to Kruger (1983:182), findings from local as well as international research papers suggest that from a historical perspective, the stigma of poverty and juvenile delinquency which clung to industrial education in England also emerged in The Gambia, primarily because of the way in which industrial education originated here.

Most of what was known about technical/technology education at that time in The Gambia had its origins from British counterparts, as a result of the industrial revolution that occurred in Britain at that time, which was carried back to The Gambia, during the British rule of this colony. British roots of the technical education curriculum in The Gambia, and the insistence that technical education be made available to the 'white' youth only in this country was as a result of the industrial development that occurred in the late 1800s, especially in the mining and railway industries.

It is well known that The Gambia's particular racial history, which involved racially, based job reservation, led to the exclusion of black workers from opportunities for technical education and training, hence the statement above technical education be made available to the white youth in this country in the historical development of technical education in this country. It therefore appears from this statement that as a result of racial segregation in The Gambia, the growth and development of technical education came to a standstill amongst certain racial groups in this country. Exclusion of technical/technology education to certain race groups suggested that it may have been one of the major stumbling blocks to the fostering of technical education in The Gambia on a large scale, which could have been a viable economic growth factor to the people of this country. It follows that the way in which industrial education or technical education originated in The Gambia was a detrimental factor to its negation and down played prominence that affected its status in The Gambia today.

### **Social, Political and Economic reasons for downplaying technical education**

The ongoing perception that technical education was for poor people or for people who could not do anything or undertake to do anything else in their lives, hence the term "*poor and indigent children*" became associated with technical education. Technical education became associated with a type of education '*that took pity on people*' that were less fortunate or that came from a '*poor background*', and technical education was a way that afforded these less fortunate people an opportunity to redeem themselves in the eyes of society, and to pick themselves from poverty and to prove their self worth in society, as if they were unfit to be part of this society , due to their personal social circumstances. Snedden and Prosser, as cited in Camp (1983: 10-19) highlighted this theory as part of the six theories underpinning technical education that of, "Socio-economic stratification where sociologists believed that in all societies, the growth of social classes was a natural , indeed a necessary phenomenon. Movement between social classes was possible, but a steady social system rightfully made vertical social mobility difficult"

Among the most devastating consequences of our republic were its effects on the education system. Black secondary schools bore the brunt of the republic assault upon our young people. The discriminatory character of our school programmes was all too visible in the limited range, lack of relevance and poor quality of learning programmes and qualifications. Black technical colleges lacked meaningful linkages with industry and were largely disconnected from the local economy.

One of the conflicting features of the The Gambian labour market has been the claim by employers and, labour market experts of acute skill shortages in certain fields at exactly the same time as employers cut back on skills training. These claims have been made ever since the boom years of the late 1960s. They have had some validity in certain specific occupations requiring high-skills and high-tech inputs, for example, in new technological fields such as informatics and biotechnology, and in the demand for high-tech artisans. They also arise because of the general drift to more intermediate and high skills jobs. However, the generalized claim regarding skill shortages is probably more a reflection of the dissatisfaction among employers regarding the poor outputs of schooling and the massive illiteracy levels of semi-skilled workers.

### **2.3 The Technical Education Perspective**

As cited in a journal article by Camp and Doolittle (1999): Domains of study and practice, such as career and technical education, are founded upon both implicit and explicit theoretical frameworks. Theoretical frameworks allow scholars to organize and synthesize knowledge and conjecture within a field and serve to describe, explain, and predict behaviour and experience. The established theoretical framework that still guides career and technical education is based primarily on the work of David Snedden and Charles Prosser as cited in (Camp & Hillison, 1983; Doty & Weissman, 1984) from the early 1900s. Both Snedden and Prosser were concerned principally with broad political and policy issues and seem to have given little consideration to a learning theory to undergird their vision for career and technical education."

Camp and Doolittle as cited in Mayer (1992) further emphasis that: Since the late 1800s, three learning theory metaphors have dominated education, as a whole: learning as the acquisition of stimulus-response pairs (behaviourism), learning as the processing of information (information processing), and learning as the construction of knowledge (constructivism). According to Camp (1983) who maintains that from literature reviews it became apparent that the common theory underlying technical education was "behaviourism" and the "so called social-efficiency doctrine.

Supporters of the social efficiency theory believed that only an efficient society could create a positive environment in which the individual could prosper and find satisfaction. The history of technical education in The Gambia, however paints a similar picture to that of the social

efficiency theory, in that it originated in The Gambia to assist the poor black classes and the indigent (natives) peoples living here, to provide for or to give them a better life and social status. Supporters of the social efficiency theory maintained that because the school was part of a social system, they had a right to add to the good of society by contributing to its effectiveness. Hence technical education in The Gambia originated for the 'poor black' to provide them with a means to find employment at that time and also to make them self supporting so that they could move up the social ladder.

Technical education, as envisaged by Snedden and Prosser", made up one of the bulwarks of social efficiency, in that the preparation of a well-trained, compliant workforce was a sine quo none of an efficient society. According to Snedden and Prosser (as cited in Camp, 1983), six fundamental theories formed the foundation for social efficiency as applied to the principle of career and technical education in the early 1900s. The six theories revolved around Socio - economic stratification, Probable destiny, Psychometrics, Social control, Pedagogy and behaviourism. However, the most important of the six for technical education has been behaviourism.

Dobbins (1999) maintain that: behaviourism remains the learning theory under girding current career and technical education thinking. To illustrate his contention, he pointed to the links between behavioural learning theory and the competency-based approach to programmatic decision-making and curriculum structuring, which is still pervasive in career and technical education as cited in Finch & Crunkilton, (1999)

Finch & Crunkilton, (1999) cited in Camp and Doolittle (1999) state that: Career and technical education at the local level remains oriented toward a competency-based curriculum, structured from the perspective of industry needs and standards, and delivered using a pedagogy that relies on pre-determined performance objectives that include condition, task, and standard. Where then is the room for the creative, innovative and entrepreneurial learner that is envisaged by the guidelines in the New Further Education and Training (FET) Curriculum Statements. It will be interesting to know whether the current changes taking place in the new FET curriculum in The Gambia, in the context of unemployment, skills shortages and sustainable economic growth and development, has taken cognisance of the role of technical education in these paradigms. This will be established by looking at the perceptions of educators, principals and learners.

## **2.4 The Stigma of Technical Education**

Although technical education and vocational education are usually linked together, vocational education has a different origin to technical education. It is historically linked to education for the poor, or indigent, and the 'less able' in many countries. This further reinforces the stigma of inferiority attached to technical education.

In The Gambia, the early beginnings of vocational or trade education for adolescents were linked to the relief of indigency. The legal framework establishing the Gambia Technical Training Institute (GTTI) was instituted by the National Vocational Training Act (NVTa) of the National Assembly in 1980 to provide training to City and Guilds and equivalent levels for post -'O' level students creating opportunities to meet the requirements of the middle level technical and vocational human resource requirements of the Gambia. In their efforts to bring all children within the scope of the law on compulsory education for youths, The Gambian government audits provincial administrations created certain special types of education to meet the special needs of special children who, through indigency, delinquency, or some other cause, could not be suitably dealt with in ordinary schools.

Badroodien (2001) extends this theme in his analysis of how trade schools were utilised as a solution for the problem of indigent and delinquent coloured boys. In this tradition, vocational education was considered a suitable track for making difficult young people useful to society, by preparing them for some form of productive work. Sultana describes the social control function of vocational education and training in most countries in harsh terms. Mainstream teachers, who use them as convenient 'dumping it sites for students they find difficult to control, often appropriate the creation of separate educational spaces. Thus, while the official discourse around vocational schools highlights their utility to the economy, their real value to the educational system is their function as holding pens for the unmotivated and resistant students.

In The Gambia, vocational education developed along racial implications, however the social function of this form of education is also a common phenomenon.

## **2.5 Industrial education as a form of technical education**

According to Chisholm, (1992:3) "the term 'industrial education' was strongly associated with preparation for an industrious rather than an industrial life and was mostly used to refer to the

transmission of handcraft skill". Even as late as the 1960s, terms like 'industrial' and vocational (rather than 'technical') were used to describe education for black people. Technical education would have suggested a level of training and skill that was not intended (1987, in Millar, Raynham & Schaffer, 1991: 119). The practical focus of industrial education, as well, once included into the college system, took on a racial bias. Chisholm (1992: 4-5) cites the example of two technical colleges. In the historically white college, technical education encompassed both theoretical and practical training in workshops and on-job. In the historically black college, the focus was on the acquisition of practical manual skill, aimed at the unskilled and semi-skilled end of the informal labour market".

## **2.6 The Need for Technical Education**

The need and significance for technical education in The Gambia, especially for the community, pushed for technical education to be provided for all pupils in The Gambia. The contribution towards the establishment of vocational training centres explains the need and importance for the role of technical education in early historical educational establishments. Numerous reports and articles, pertaining to the crisis in the labour market as a result of the education system, and the need for technical education at all levels together with the restructuring of the education system which incorporates a differentiated system, can be found in many journal articles and unpublished dissertations.

Monica Bot, (1991: 16) in her study on the provision of technical education, reflects on the African education system, which she believed focused primarily on the academic preparation of the child, gearing him for tertiary education and university. There was however, very little emphasis on the teaching and learning of technical/technology education that she felt will eventually prepare the child adequately for a world of work in a technological world. On the other hand, Malherbe (1977: 712) found that this was not always the case, because employers placed little value on the training provided by technical education and preferred to employ cheaper black labour.

Searle (1988 : 26) in his review and research on Technical Education stresses that it is a well-known fact in both the educational and industrial circles that our present education system is following an academically-orientated curricula while industry is crying out for people with

technical skills, to the extent that many industries are forced to recruit employees from outside the country, and this in the face of massive unemployment at home.

Most of the studies have focused their attention to the need for Technical Education at schools and tertiary institutions, and for highlighting that Technical Education may be a panacea for the government for the eradication of the high rate of unemployment and skills shortages in our country.

## **2.7 The Further Education & Training Curriculum - A historical perspective**

### **2.7.1 Introduction**

Analysis of curriculum change may suggest that one should break with the past. On the other hand an analysis of the past should be adopted as a basis for curriculum change. In light of our technical education system in The Gambia, what are some of the factors that may have contributed to this change? Two views unfold in this deliberation, one that outlines the birth of technical education and the other that outlines the origins of industrial or vocational education. The Gambia's racial past of segregation had a lot to do with this change. Considering the fact that history may repeat itself, but this time the influential factor no longer being race, as it was in the past, but rather the ability of the current curriculum to get the theory-practice combination right. At present due to shortages of resources in schools the majority of learners study only theoretical courses, without access to practical training and on-job experience, which becomes just as problematic from an educational point of view. Due to unequal provision based on race, in the past, basic physical resources in schools still remains a grey area, more so than ever in terms of equipping workshops to adequately teach technical education. If race was the issue that accounted for our past curriculum, what is the cause that determines our current provision especially in the technical field?

### **2.7.2 The impact of change on Status**

Below is an example taken from recent publications on further education and training. Curriculum change is depicted as a decisive break with the past in order to establish new ways of presenting the curricula, which support an integrated approach to education and training. The call is for a closer fit between the everyday world of practical knowledge and the changing demands of the workplace. Angelis and Marock (2001) maintain that curriculum changes as a break with



the past taking into cognizance the curriculum of the past and the curriculum of the future. Curriculum focuses on transmitting current knowledge, and creating new knowledge as well. Additionally, it is used for transformation.

To establish whether The Gambia is on track with its curriculum design let us consider Howieson, Raffe, Spours and Young (1997) exposition on how Scotland and England: in the attempt to achieve a unified system of academic and vocational learning, demonstrate, how England drew on a radical and ambitious concept of unification that was related to a view of the changing global order. The focus was more on critiques of existing arrangements, than on the design of a new, unified system or the process of implementing such a system. Scotland proceeded in a more low profile manner by using an analysis of their present system's weaknesses to work out a more fully specified concept of a unified system. They benefited from an evolutionary, consensual, agreed-upon, and consultative tradition of policy development. In this view of curriculum change, the past is not viewed as bad practice, which needs to be done away with. It is rather viewed as a complex interweaving of strengths and weaknesses.

### **2.7.3 The Gambia's racial impact on apprenticeships**

According to UNESCO reports, It is well known that The Gambia's particular racial history, which involved racially, based job reservation, led to the exclusion of black workers from opportunities for technical education and training. Lewis (1984: 24) explains that the 1922 Apprenticeship Act did not directly exclude black apprentices. Rather, it was, the high educational requirements laid down in the Act and the obligation to attend a trade school, when few existed for black apprentices, which excluded and disallowed black youths from entering apprenticeships:

Job reservation and low levels of skilled black workers became an obstacle to economic growth in the late 1960s and early 1970s. As a result of this, policies of industrial decentralization were actively pursued and employers were encouraged, through incentives, to move their businesses to the 'homelands ' or to adjoining border areas. Black workers were increasingly recruited to undertake work, which had previously been reserved for white workers, yet they were still given only limited access to vocational education and training With the promulgation of the Manpower

Training Act in 1981, access to training by all workers became an established right and many of the newer technical colleges date back to around this time.

#### **2.7.4 The end of work-based educational routes (apprenticeships)**

According to (Howieson et al., 1997; Maguire, 1999; Huddleston, 1999; Wolf, 2002) the deracialisation by statute of apprenticeships which happened in 1981 coincided with dramatic changes in the social conditions that underpinned apprenticeships. Originally, the system was one in which almost all apprentices were sponsored by industry, and in which apprentices had the status of employees. Day-or block-release allowed them to attend off-job instruction at a college. This system changed to one where most students now study full-time with no employer sponsorship and therefore, little or no opportunity available for practical, on-job training. The trend towards longer participation in full-time study and a decline in work-based educational routes is also evident in other countries. The difference in The Gambia is that this move towards longer full-time study has coincided with the deracialisation of the college system (after 1994). Young black people now have greater access to opportunities to prepare for intermediate and higher level occupational categories, and yet they do not have access to the practical on-job training, which is deemed so necessary for occupational preparation.

#### **2.7.5 Curriculum for the Future**

It has been argued that a curriculum of the future in further education and training (FET) needs to be informed by an adequate perspective on a curriculum of the past. A historical perspective shows that, from its earliest beginnings, technical and vocational education has included three forms of educational provision. Firstly, technical education referred to science instruction as found in general education, where it functioned as a foundation for practical knowledge (instructional education). Secondly, vocational education referred to forms of compensatory education, with a practical aim (inferior education). Finally, industrial education focused on the imparting of skill in some form of handcraft, as well as the inculcation of discipline, obedience and regular work habits (behaviourism).

These traditions have converged, or combined, to set up two pathways in the technical and vocational curriculum, the one that keeps knowledge and skills together, and the other that separates skill from its formal knowledge base. The intermediate level itself is thus characterized

by a division between high skill and low skill. This separation and demarcation figures prominently in the debates explored in the following chapters, but here, it needs to be interpreted in relation to the past, in order to serve as a warning that an integrated approach to education and training may not be as easily attainable. What may result, in the quest for a closer 'fit' between formal knowledge and everyday problems and the increased emphasis on application and use, is that the practical curriculum is privileged over the theory-practice curriculum, in the sense of being rated more highly. We need to eradicate the racial inequities of the past but a complete break with the past may well lead to the erosion of the historically central place of concept formation in the college curriculum.

## **2.8 Current Changes in Technology/Technical Education in The Gambia**

According to UNESCO (1979 : 9) "Countries undertaking the enormous task of restructuring, reorienting and expanding their educational systems to meet development needs are devoting more and more attention to the role of technical and vocation education. Indeed, political leaders, economic planners and educators in many countries consider the development of technical and vocational education as the keystone of an educational system." In The Gambia, the development of the new curriculum for both the GET and FET phases has only a small aspect of technical education, in the form of Technology in the GET phase, and Manufacturing, Engineering and Technology and the FET phase.

In the current system in the GET phase, Technology is included as part of the compulsory learning in the GET band, which replaces subjects like Basic Techniques and Industrial Arts while Manufacturing, Engineering and Technology replaces all the technical and technika subjects in the FET phase. The curriculum that we choose to design and implement will need to consider how such a curriculum will contribute to a social, economic and political development of our country and its people. A central role of education is to offer a curriculum that enables its learners to obtain a basic understanding of the society in which we live. From this premise, it is logical to assume that the The Gambian curriculum should reflect strong characteristics of a democratic, scientific, technological and literate society. As The Gambia has elected to set upon this road, the curriculum for technology warrants careful thought. This requires us to first locate ourselves in a particular stage of technological development. The issue of Science and

Technology is crucial for the future of the African continent, since all provisions indicate that science and technology will play a major role in the 21st century.

According to Kahn (1995), "future economic growth in African countries will depend on the ability of local people to master a technologically driven manufacturing industry with internationally competitive expert capability. Wealth distribution can now only be achieved through skills distribution, developing practical skills, which contribute to technical proficiency and creative expressiveness in dramatic practices processes and products.

## **2.9 The New FET Curriculum**

Breaking away with the past and trying to come up with a curriculum that is in keeping with the needs of the country as a whole is no easy task. The primary purpose of the Further Education and Training Certificate (General) is to equip learners with knowledge, skills, values and attitudes that will enable learners to participate meaningfully in society.(The White Paper on Education and Training, 1995). The National Curriculum Statement broadly and the FETC (General) in particular aim to provide a basis for continuing learning in Higher Education, to lay a foundation for future careers, and to develop learners to be productive and responsible citizens and lifelong learners. It therefore appears that the new FET curriculum has taken into consideration the effects of the past and considered the needs of the future by redesigning the curriculum accordingly. However, has this consideration also been extended to the field of technical education in the country? A learning field is a category that serves as a home for cognate subjects , and that facilitates the formulation of rules of combination for the Further Education and Training Certificate (General)".In Technical/Technology Education, they are Manufacturing, Engineering and Technology, Electrical Technology, Engineering Graphics and Design, Mechanical Technology and Civil Technology. These will replace the other subjects like Technical Drawing, Woodwork, Metalwork, Electricians Work, etc

Wakeford (2001) states that because of our legacy many in our current workforce are not at the desired skill level to enhance our international competitiveness in the global economy. There has been a low emphasis placed on math, science and physics, and obviously the sub grouping of specialized skills of those disciplines. Therefore, the challenge for us is to convince young people to specialize in information technology and engineering across all fields, mechanical and

industrial, as well as civil. And, of course, in more specialized disciplines such as biochemistry and food technology fields as well.

### **International Literature**

According to Corbett (1992: 44) it appears that the "social status in the United Kingdom was crucially influenced by the nature of the paid work people did", which ties in with Snedden and Prosser (theories on social efficiency and socio economic stratification)

Summerfield and Evans (1990: 1) on the other hand maintain that "technical education has been regarded by many, as significantly important to economic success". To reinforce the statement above, Reddy (10) affirms that "The economic growth of any country is directly proportional to its appropriate education system". Adding to this statement Rautenbach (1989) adds, In assessing the role of technical education consideration has to be given to the nature and causes of the crisis, as well as the need for technical education and the possibilities it offers for human and economic development. Bearing this in mind, the Directorate of Science and Technology Education needs to assess the current education provision (in particular the provision of technical education) in this country, with a view to finding solutions or to solving problems related to unemployment and skills shortages that affect us at present. Consequently, one cannot accede to overlook the role that technical education will play in this function.

At present technical education in our country does not enjoy a very high status, and is still looked down upon by many components of our society. However the importance of technical education in our school curriculum cannot be relegated with regard to addressing unemployment, which according to media reports currently stands at 12%, as well as developing the skills shortages in the country and for the country's economic development and continued sustainability of (6%).

The effective development of technical knowledge and skills is critical to the economic development of the country, yet one has to figure out why technical education is still regarded as "inferior education" and is given a "low status" as well as not been given the prominence it deserves, although it belongs in every facet of our existence. In order to comprehend this phenomenon, a close study of the theories that surround technical/technology education and career education needs to be examined.

As cited in Jansen and Vithal (1997 : 17) "a theory could be described as well developed, coherent explanation for an event e.g. Piaget's theory of child development. Theories also describe a probable explanation for why things happen". In the case of this research study, it is to understand why technical education has a stigma of inferiority attached to it.

## **2.10 Conclusion**

In this chapter the researcher examined the historical development of technical education in The Gambia. The literature review reveals that throughout history there have been postulations that technical education was regarded as an inferior education. Findings from local as well as international literature revealed that technical education has always been downplayed in favor of academic education. Certain words like *indigence*, *social* and *educational inferiority*, and *mental backwardness* became associated with technical education. The history of technical education in The Gambia also revealed that the education was exclusive to the whole community as a result our youths were not given an opportunity to participate in such an education. With this background in mind the researcher embarked on the study to ascertain whether this kind of thinking still prevails in our society today with regard to technical education or is there a change of mind set with regard to technical education. There has been little or no research on the value and current status that technical education has for teachers and learners in our country.

This study reveals that the school curriculum both academic and technical needs to be revisited, in terms of status and value for learners, and also the impact it serves in employment for the youth of our country.

Thus, the researcher was of the opinion that no known study or record has ever been done on the status of technical/technology education in The Gambia. The purpose of this study therefore, is to investigate the present status of technical education in The Gambia amongst teachers, principals and learners .The researcher was also of the opinion that the themes and problems touched on are pertinent to the struggle they face in the contemporary Gambian situation where the status and relevance of technical education in the educational system is of significance to the child in the classroom situation and later as a member of the workforce of our country. How will a purely academic or technical curriculum followed by a school pupil, affect his /her opportunity to find suitable employment in The Gambia?

The ultimate findings of this study ought to suggest what learners, principals and teachers think about technical/technology education from a variety of perspectives. How do different race groups and different genders feel about technical education, and why are there different perspectives about technical/technology education from one country? Why is it that at ex-public schools, Technical education is downplayed, and on the other hand, at predominantly African or White schools there are an influx of students in the technical/technology education department? In the light of the above, it will be relevant to find out why certain communities frown upon technical education while other communities place a high regard on technical education. These are just some of the views he hope to elucidate from this study.

## **CHAPTER III**

### **METHOD AND PROCEDURE**

#### **3.1 Introduction**

In this chapter the reader is introduced to the research design and methodology that was used to elicit the data. The aim was to explore these attitudes and perceptions and to assess the current status of technical/technology education provision in selected technical Upper Basic Schools in the whole Regions/Districts in The Gambia.

In order to investigate the status of technical/technology education in The Gambia, both the qualitative and quantitative approach methodology was used to collect data. Thirty schools were used because of its composition (multiracial) of learners at these schools and the emphasis the schools placed on technical education. The schools selected were; Bakau UBS, Bakoteh UBS, 22nd July Academy, Greater Banjul UBS, Nyakoi UBS, Fatoto UBS, Bansang UBS, Latrikunda Sabiji UBS, Latrikunda German UBS, Gunjur UBS, Pakalinding UBS, Brikama UBS, Kabafita UBS, St.Peter's Junior Secondary School, Jamisa UBS, Kaiaf UBS, Barra-Essau UBS, Sukuta UBS, Kerewan UBS, Farafeni UBS, Rose-Kali-International UBS, Tallinding UBS, Old Yundum UBS, Abuko UBS, Kunkujang UBS, Jangjang Bureh UBS, Nioro Jattaba UBS, Bakadaji UBS, Kanifing East UBS and St Theres's UBS respectively. The use of the combination of qualitative and quantitative methods resulted in a triangulation effect and enabled a further exploration into the status of technical/technology education in The Gambia. Furthermore it assisted in generating a more comprehensive account of the value of technical education for teachers and learners.

In order to establish his credibility as a researcher and gain access to respondents, the researcher first write to the Director of Science and Technology Education at the Ministry of Basic and Secondary Education acknowledging him and his staffs about the research topic to be conducted at the selected Upper Basic Schools within the whole Regions/Districts and to provide information, documents, bulletin or publications and brochures etc to facilitate the research report.



The research strategy also included critical analysis of documents on technical education, policy documents (pertaining to the administration of technical education for Upper Basic Schools and technical schools), syllabi (for all technical education subjects), etc.

### **3.2 Research Paradigms used in the study**

According to Patton (1990) "researchers have long debated the relative value of qualitative and quantitative inquiry. Qualitative research makes use of a naturalistic approach that seeks to understand phenomena in context-specific settings. Logical positivism, or quantitative research, uses experimental methods and quantitative measures to test hypothetical generalizations. Each represents a basically different investigation paradigm, and researcher actions are based on the original assumptions of each paradigm". For the purpose of this study both methods of research was used, qualitative for its natural setting (technical schools - why and what are people saying about technical education) and quantitative, to test the hypothesis (why is technical education perceived as inferior education and also what percentage of the sampled population have to say about the status of Technical education in the whole Regions/Districts).

Findings from this study can also be used to gain new perspectives on things about which much was already known, or to gain more in-depth information that may be difficult to convey quantitatively. Thus, qualitative methods are appropriate in situations where one needs to first identify the variables that might later be tested quantitatively, or where the researcher has determined that quantitative measures cannot adequately describe or interpret a situation. Research problems tend to be framed as open-ended questions that will support discovery of new information.

The ability of qualitative data to fully describe a phenomenon is an important consideration not only from the researcher's perspective, but from the reader's perspective as well. "If you want people to understand better, than they otherwise might, provide them information in the form in which they usually experience it"

### **3.3 Population**

The population consisted of 84 Upper Basic Schools in six Regions/Districts of The Gambia.

### **3.4 Sample of the Study**

The sample consisted of 30 Upper Basic Schools from the six Regions in The Gambia. Sample included; total sample categorized were 30 Principals,30 Educators,30 Learners that came out of to be 90.

### **3.5 Research Instrument**

In response to the research questions, the questionnaire was the only instrument used in this study. The underlying principles behind the use of such an instrument are as follows;

- For a sample as large as across the whole six regions in The Gambia, it was found that the questionnaire was the most effective method of gathering data. Respondents could complete it with little or no assistance.
- Access to the perceptions of principals, educators and learners was gained by means of a questionnaire.
- It became evident that the questionnaires also become the cost effective method of gathering data from the sample as large as the one used in this study.
- In the questionnaire, the respondents were assured that only the researcher, supervisor and the data analyst had access to personal information such as age, marital status etc and anonymity was guaranteed.
- A structured questionnaire was used for data collection. The questionnaire of likert type five point scales are; Strongly Agree,Disagree,Neutral,Agree,and Strongly Disagree.

The questions were designed to revolve around the research questions and also designed to ascertain how Upper Basic School learners and educators felt, perceived and valued the current status and the fostering of technical/technology education at technical Upper Basic Schools. The questions were formulated using simple language and endeavoured to obtain responses as accurately as possible. The nature of the questions was also non- personal.

(Referred to Table A for methodological approaches used in the study).

### **3.5.1 Validity**

The validity of the questionnaire was established as follows:

- It was scrutinized by a fellow researchers and the data analyst for commentary and validity to the critical questions.
- The supervisor of the study, who provided advice on items to be reshaped, deleted or added questions.

### **3.5.2 Data Collection procedures**

- i. Step one was to write to the Director of the Directorate of Science and Technology Education, Ministry of Basic and Secondary Education (**MOBSE**) acknowledging him and his colleagues about my research topic to be conducted at the Upper Basic Schools within the whole Regions/Districts and to provide informations, documents, bulletins ,publications or brochures, etc.
- ii. Step two, the researcher designed the questionnaires separately for principal, educator and student and approved by an expert opinions.
- iii. Step three was to send the questionnaires by email to the staffs of Science and Technology Education to conduct the questionnaire survey at the selected schools with the least amount of disruption to the academic day and return the questionnaires by scanning and send through email after completion of the data collections.
- iv. Schools were identified and selected according to their significance to technical education, in that these were technical Upper Basic Schools that offered mainly technical subjects to multiracial learners and had no technical workshops attached to these schools, and comprised of technical educators who taught mainly technical subjects at these schools. From the thirty schools selected, three sets of questionnaire per school was given to educator, principal and learner selected purposively.

**TABLE A: METHODOLOGICAL APPROACHES USED IN THE STUDY.**

<b>Research Questions</b>	<b>Purpose</b>	<b>Sample</b>	<b>Frequency</b>	<b>Instrument used</b>	<b>Result of inquiry</b>
<b>1.</b> What is the current status of Technical/Technology Education in the selected Technical Upper Basic Schools across the whole Regions in The Gambia?	1.To establish the current status of Technical/Technology Education in the whole Regions/Districts in The Gambia	School principals	30	Questionnaire	Positive & Negative
		Educators	30	Questionnaire	Positive & Negative
		Learners	30	Questionnaire	Positive & Negative
<b>2.</b> How do principals, Teachers and learners perceive Technical/Technology Education as it is currently forstered at schools?	<b>1.</b> To ascertain the value of technical education to the youth of the country <b>2.</b> To find out the gender involvement in technical education in the school <b>3.</b> To determine the quality of curriculum provision and pedagogy in technical education. <b>4.</b> To validate the perception of technical education in the whole Regions/Districts in The Gambia.	School Principals	30	Questionnaire	Positive & Negative
		Educators	30	Questionnaire	Positive & Negative
		Learners	30	Questionnaire	Positive & Negative

### **3.5.3 Restrictions Of The Questionnaire**

Taking part in this research was a voluntary one and as a result, many questionnaires came back unanswered and in some sections were left unanswered. In this study of the thirty questionnaires administered to learners, almost twenty nine (96.7%) were returned. Of the thirty questionnaires to the educators, Thirty (100%) returned and twenty nine (96.7%) principals responded to filling in the questionnaires out of the thirty questionnaires administered.

Some of the problems that the researcher experienced when analysing the data were that some of the respondents may not have answered the questions honestly. Many questionnaires were incomplete, and returned as such. Some respondents also provided very flippant responses. It must also be noted that the questionnaire required a long time to complete due to its length and this may have led to incomplete or unanswered questions being returned.

### **3.6 Techniques of Data Analysis**

The researcher used both the quantitative and qualitative techniques for analyzing the data as well as chi-square in general.

#### **3.6.1. Quantitative Technique.**

The responses from each respondent from the closed-ended questionnaire in the sample were tabulated and then analyzed. The researcher draws the conclusions about the opinions of the respondents which was generalizes from the sample selected.

Chi-square and weighted average using SPSS was used to analyze the data generated from the respondents.

#### **3.6.2 Qualitative Technique**

The responses generated from the respondents' own words from the open-ended questionnaire was gathered together, analyzed and interpreted in the form of written statement.

### **3.7 Conclusion**

This chapter looked at the methodology that was used in this research project to gather data. Due to the fact that the topic for the research involved technical/technology education, technical Upper Basic Schools in the whole regions was used, because of their relevance to technical

education, educators, principals and learners of the schools were also targeted to obtain perceptions on the status of technical /technology education in the whole regions and of its value to them. Only one instrument was used, that is questionnaire. A description of the empirical investigation was provided. The questionnaire was discussed briefly and the course of the research was indicated. In the next chapter the researchers discussed the analysis and interpretation of the empirical data, and describe the findings.

## **CHAPTER IV**

### **ANALYSIS AND INTERPRETATION OF DATA**

#### **4.1 Introduction**

This chapter presents an analysis of the results of a set of data gathered through an administered questionnaire and in response to the research questions. This presentation and analysis of data attempts to address the research questions of this study which revolve around:

- What is the current status of Technical/Technology Education in selected Upper Basic Schools across the whole Regions/Districts in The Gambia?
- How do principals, teachers, and learners ' perceive Technical/Technology Education as it is currently fostered at schools?

Questionnaires were administered to the principals, educators and learners (both male and female purposively) at the selected technical schools mentioned in chapter three under the heading of introduction.

Quantitative method of analysis was used in analyzing the research data. This study is an exploratory one and reflects the opinions of the participants' feelings on the status of technical education provision in The Gambia. In an attempt to do so, certain themes emerged as a result of the analysis which is categorised as follows, and which will be used to elucidate the perceptions of principals, educators and learners around the following themes:

- the status of technical education in the province
- the value of technical education for the youth of the province
- gender involvement in technical education in the province
- curriculum provision and pedagogy of technical education

This chapter also includes tabulations to explain some of the perceptions of the principals, educators and learners at the selected schools. The Statistical Package for Social Sciences (SPSS), as well as chi-square was used to analyse some of the data generated by the responses to the questionnaires. The researcher begins this chapter with an analysis of the sample namely, the biographic description of principals, as well as educators and learners respectively.

## **4.2 Biographic details of respondents**

### **4.2.1 Principals profiles**

Twenty-nine principals, from the thirty different Upper Basic Schools responded to the questionnaires administered. The biographical details of the principals have been tabulated (refer to Table 4.2 given in Appendix C). The principals who responded to the questionnaires were both male and female of African origin. Their age group ranged above the 30 plus category, despite all have different qualifications. Their experience as principals ranged between 1 to 20 years, with Principal No.6 having 20 years, as the highest qualification so far while the rest fall below. Each principal had a vast teaching experience, and was able to draw on this information in order to complete the questionnaire with a wealth of information. Their experience in teaching range from 7yrs to 40yrs, respectively. Only one principal had refused to provide his teaching experience although he is currently a principal of a technical school. Twenty-two out of the twenty-nine principals had teaching experience of technical subjects while the other seven had no experience (refer to Table 4.2 for further reference given in Appendix C)

### **4.2.2 Educator participants in the Questionnaire Survey.**

The sample of the educator respondents consisted of thirty educators, both male and female, with a mixture of curriculum experience in all subjects, not only from the technical field. As reflected in Table 4.2, 80% of the educators were male and 3.3 % are female and 16.6% not applicable. These statistics reflect the mismatch in distribution in terms of gender of educators involved in technical education. All educator respondents were from different age ranging from 24years upward and belonged to the African race. All the respondents have different academical qualification, with 66.6% having certificate, 16.6% with a diploma, 13.3% with PTC/HTC/HNC and 3.3% of the respondent having postgraduate qualifications, (Refer to Table 4.1 given in Appendix B):

All the respondents had different years of teaching experience, with 36.6% in the 1- 10years, 46.6% in the 11-20years, 6.6% in the 21-30years and 10% in the 31-40years teaching experience range. Judging from the experience of the educator respondents, it appears that the responses elicited from their questionnaires will lend credibility to the research study in terms of the textured rich data that emanated from this study.



### **4.2.3 Learner participants in the questionnaire survey**

The questionnaires were also administered to learners of grade 7, 8 and 9 of both sexes. Of the thirty questionnaires administered, twenty-nine were returned. This excellent return rate was made possible by emphasizing to the learners the reason for the study and also that their input into this study was of tremendous importance. As a result a return rate of 96.6% was achieved for the return of the learner's questionnaire. The respondents comprised of both boys and girls, in the technical and academic streams at technical Upper Basic Schools in The Gambia.

### **Gender of Respondents**

The data collected from the respondents shows that 86.2% were males, 10.3% were females as per the demographic trend of the school and the respective sampling and the rest not applicable due to their failure to fill up the required space provided in the questionnaires.

### **Respondent age group**

Regarding their age, it was noted that all respondents were above 16 years. This is because the required admission age in the 3 years Upper Basic School level is 13-16 years and despite all were of African origin, demonstrating that the African youth of today is interested in studying technical/technology subjects.

### **Education of Respondents**

The results also revealed respondents' education group dispersion of participated respondents in this research. The participated respondents in this study in terms of education distribution were 9<sup>th</sup> Grade – 44.8%, 8<sup>th</sup> Grade -13.8%, 7<sup>th</sup> Grade -6.9% and 34.7% not applicable, (does not provide their educational details). This reflects that the maximum number of respondents emanated from the Grade 9. Although, in the execution of this survey, it was confined to the Grade 7, 8 and 9 only.

## **4.3 Discussion of Findings**

Questionnaires administered to the respondents posed questions to the educators, principals and learners around different themes, namely; perceptions of technical education, value of technical education to the learner, the involvement of gender in technical education and the pedagogical value of technical education in terms of the sustainable economic growth of the country in terms

of providing skilled labour for the future. Under each theme, there were several questions asked and these have been restated within the themes. All responses pertaining to a particular theme had been captured together.

#### **4.3.1 The status of technical education in the Upper Basic Schools.**

In response to the first research question, “What is the current status of Technical/Technology Education in selected Upper Basic Schools across the whole Regions/Districts in The Gambia? Principals unanimously stated that the present status of technical education in our Upper Basic School level was 'low'. Remarks such as "the subject is accorded a very low status' and that it was the perception that "this subject is for none academically inclined learners" Another remark made was that "the status was poor because there was no workshops no tools or equipments for practical demonstration deal with the curriculum”. Another principal stated that the perception had not changed much at all, as historically stated that technical education was still regarded as "inferior education” and not been given due consideration.

According to Silbernan, (1986) whose ideas concurred with what the principals stated, the technical education is still regarded as 'inferior education' by stating that secondary vocational education is not given a "high priority”. Why technical education has little value and should be replaced by an academic curriculum is yet to be investigated.

O'Connor and Trussell, (1987), confirmed our earlier assertion that, one reason vocational education has such low status that it was not a requirement for admission to universities. Although sixty percent of high school graduates enter the workforce directly after graduation and need the skills that vocational education can provide for vocational education was seen as having no place in career paths of young urban professionals. According to Silber man, (1986: 6) students "in pursuit of fame and fortune, the best and brightest high school students, have little time for elective vocational courses”. Future lawyers and financiers do not take courses with "shop components”. Robert Reich (1983) has written about the dysfunctional economic consequences of the “best and brightest”students avoiding economically productive jobs in favour of more comfortable and prestigious "paper entrepreneurial" positions in law and finance.

In response to the theme on status in the educator 's questionnaires, this is what the educators had to say about Questions 1 of section B. Educator responses to the question of 'what do you feel teachers and other learners (not technical); think about a technical education course?' differed according to the respondents understanding of a technical education course. Historically technical education has always been perceived as being "an unfortunate link between poverty and manual work, hence the stigma of inferiority attached to technical education.

In response to Questions 1, 2 and 3 of section B on the issue of status, the majority of the educators felt that a technical education course is still perceived as "inferior education" The use of the following terms qualified this 'for learners not academically inclined', "low achievers ", "dropouts", slow learners ", "weak pupils ", "learners with not good academic abilities" or "those learners with low IQ ". "Inferior learners ". It must be noted that this perception has not changed in the past few decade. On the other hand, a few of the educators had positive feelings about learners who choose to do a technical course and stated that it was for learners who are "creative ". "those who see the need to study this course ", "learners doing it as a means of getting a job or be self-employed after leaving school with an unfortunate result ", "very beneficial ", and "valuable in securing a job".

However, the majority of the perceptions still concur with what people have described as early as the 1900's that technical education is "inferior education". From the responses it is clear that perceptions have not changed that much amongst our present day educators.

In response to Question 2 of section B, which sought the opinion of educator on the status of technical subjects at school today, educators provided broadly divergent reasons. The majority of the educators felt that not much attention was given to technical course at schools, neither the respective ministry or by the government. Some respondents reflected that "it was a pity that the courses were phased out by the government to the detriment of quality technical education ", "that the subjects were too difficult and the tools are expensive to purchase", "technical subjects had no status", "not rated as high as academic subjects". "Technical subjects are not respected; it does not have much status". On the other hand, there were a few respondents that said lack of workshops and tools for practical used, that "technical education was not given high priority", and "it was popular with many learners, as many schools had to turn away learners because there

was no space available". Some believed that many students choose these subjects because it had a "low pass requirement"

In response to Question 3 of section B (Educator's questionnaire), "Who in your opinion are the students those choose a course in technical education?" Almost 75% of the educators felt that the students who choose technical courses are the students that like to "work in industry" "students who enjoy practical work", those that were "technically inclined", learners who wanted a "career in technical education", "students who want to pursue a trade ", pupils whose "parents had their own businesses" or that "were choosing to study engineering or become artisans in a company", some said it was for "creative learners", learners "who like to work with their own hands" Some responded that it was for learners with "lower academic potential. "Some educators commented that "it was for the academically weak learners, pupils who experienced problems in schoolwork ", "poor achievers ", "the average learner ", learner's that were not "cut out for academic courses" Some even expressed that it was the "absconders , difficult learners, learners with " limited academic ability ".

In response to Question 21 of section B, on the issue of whether learners were properly guided, and not misled when selecting courses at school? *One* educator suggested that, "This was a serious problem at schools because academic staffs sway the learners and parents into believing that technical courses are for slow learners." He further stated that "at school level many schools merely fill classes to suit their current educator numbers. " It appears from the statements above that learners at schools are not properly guided, in their selection and choice of subjects; they are merely placed into classes to suit the educator situation at a particular school.

The following were some of the sentiments that were echoed by the learners. At the outset, it must be pointed out that the learners have a very optimistic view of the portrayal of technical education for the future of the country. They do not see a distinction between the academic subjects or the technical ones. Unlike the perceptions of principals and some of the educators, the majority of the learners are very positive about the role that technical education plays in our education system. They felt that it gave them direction in their choosing a field of study and to get an idea of what it will be like in that job occupation. Learners responses were as follows; "It is worth having these educational courses at schools, it gives other learners who choose not to do

the academic system a wide range of choices to choose from". Respondents view technical education courses as "other choices" equal to or better than the academic subjects. Some learners were despondent that the course that they were studying had been phased out. Learners felt that they are exposed to enough experience to get them ready for the world of work.

In response to Question 2.2 of section two (Learners questionnaire), "What do you feel regarding teachers of other learning areas, and other learners think about a Technical/Technology education course at your school", learners stated that "we act as a model school, but they would love to have technical education at their schools, "needed to provide learners with the opportunity of getting a job" or be self-employed.

Anecdotal insight into the Ministry of Basic and Secondary Education shows no development in terms of equipping the schools with other facilities like technical workshops, domestic science classrooms. Their infrastructure has been left as it was prior to the first republic to the present day. Furthermore there are inadequate numbers of educators to teach technical subjects at these schools. Learners at schools are still not exposed to technical education, and very few school teachers do teach technology education in the GET phase in the correct way.

Thus the researcher has observed as a technical educationist in the Directorate of science and technology education it seems as if our previously disadvantaged learners are still disadvantaged years ago after democracy. Another response was that, "Everything is advancing. The world is becoming more computerized and this is a good thing for all the technical learners". "They think that it is very hard. But when you tell people that you are doing mechanical engineering, they say that it is a very good field."

Responses from the learners were more motivated and inspirational. They see value and substance in technical education and do not denigrate technical education. The learners have a higher respect for technical education; hence the "status" for them is high. Learners perceive this type of education as a learning opportunity that will eventually take them into a world of work and a world of technology. It also provides an avenue for learners to prepare for an occupational field outside the formal education system. Finally, it provides a basis for a wide range of

opportunities to develop skills, aptitudes and knowledge in choosing an occupation and also access into their first jobs.

**Table 4 A. The Results Derived from the Opinion of Learners are Tabulated below**

S/N	Statements	WA	$\chi^2$
1	The current syllabus in technology/technical subjects is inadequate for the current employment market	2.76	.008
2	Technical subjects are more popular than academic subjects	2.11	.013
3	On completion of a technical education course there is no need to go for additional training	1.65	.001
4	The workshops at my school are sufficient to enable me to be adequately trained for the occupational work	2.70	.323
5	People generally have a low opinion of learners that do technical subjects	3.29	.075
6	The elevated importance placed on academic subjects in schools caused learners not to take technical subjects.	2.92	.170
7	Technical subjects are not important.	1.56	.000
8	Schools educate learners to enter tertiary institutions rather than to obtain a job	3.50	.000
9	My parents refuse to allow me to do a technical course.	1.85	.005
10	There is no value in taking a technical course at school.	1.65	.000
11	What I learn in a technical/technology course is not useful to me	1.48	.003
12	Every learner at school should be engaged in technical /technology education	3.78	.58

**Note:** The Rules for calculating the weighted average and Chi square:

- The weighted average (WA) is interpreted as: (i)  $WA \geq 4.5$  is “Strongly Agree” and  $4.5 > WA \geq 3.5$  is “Agree”,(ii)  $3.5 > WA \geq 2.5$  is “Undecided” and (iii)  $2.5 > WA \geq 1.5$  is “Disagree” and  $WA < 1.5$  is “Strongly Disagree”
- The value of Chi Square ( $\chi^2$ ) was used for testing its significance at 0.05 level of confidence

**Table 4.3 The Current Syllabus in Technology/Technical Subjects is Inadequate for the Current Employment Market**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	4	13.3	16.0	16.0
	Disagree	4	13.3	16.0	32.0
	Neutral	11	36.7	44.0	76.0
	Agree	6	20.0	24.0	100.0
	Total	25	83.3	100.0	
Missing	No Answer	4	13.3		
	System	1	3.3		
	Total	5	16.7		
Total		30	100.0		

Learner respondents believed very strongly in the importance of technical education in their lives and or what it was teaching them. They felt that the skills they acquired because of these courses certainly prepared them for the world of work.

In response to Question 2.4 (Learners questionnaire) which states "Are you comfortable about learning technology at school? Why is this so?" Learners responded by saying that "yes, I enjoy working with my hands. I was always fascinated about metalwork or technical drawing. There is always something new to learn about. "In some cases, learners said that they were not comfortable about learning technology at school "No, cause it can be hard and there is a lot to learn in a short period of time". It appears as if the learners do not want to study the theoretical aspect of the curriculum and only want to engage in the practical aspect of the workload. Studying the Table 4.3 above, one observes that there is a concurrence with their quantitative responses, where 20 % Agree and 36.7% neutral that technical education does not prepare youth for the world of work. (Refer to Table 4A), the weighted average is  $2.76 \geq 2.5$  which is totally undecided and the chi-square .008 is much less than the critical values at .05 level which means that null hypothesis is rejected and that the opinions of the learners is quite significant.

Learner respondents had this to say about Question 2.1 on perceptions which stated "Do you feel that what is being taught in the Technical /Technology Education classes prepares learners adequately for the world of work." Many learners found Technical education an interesting

subject. They responded by saying that technical education "teaches you to utilize skills and develop skills that are required in society.

**Table 4.4 Technical Subjects are more Popular than Academic Subjects.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	11	36.7	37.9	37.9
	Disagree	14	46.7	48.3	86.2
	Neutral	3	10.0	10.3	96.6
	Agree	1	3.3	3.4	100.0
	Total	29	96.7	100.0	
Missing	System	1	3.3		
Total		30	100.0		

In support of the sentiments of the learners, the quantitative results given in the table above reflect similar views. 36.7% and 46.7% disagree that technical subjects at their schools was not popular, however it was interesting to note that 10% of the respondents remained neutral on this point or were undecided. Only 3.3% of the learners agreed that technical education was more popular at their schools. (Refer to Table 4A), the weighted average which is 2.11 is  $\leq 2.5$  and that the responses from the learners is quite disagree while on the chi-square of .013 is less than the critical value at .05 level, therefore the null hypothesis is rejected that the responses on this statement are statistically significant.

Anecdotal evidence suggests that one of the problems facing industries today is that they encounter very little linkage between the educational system and the employee skills required by the private sector, especially in secondary, primary, and pre-primary schooling .Another problem is the brain drain of highly qualified and skilled workers who are leaving the country, for greener pastures. There appeared to be a growing shortage of workers in the fields of engineering, accounting, and information technology. Although The Gambia is relaxing its restrictive immigration that is not a sustainable answer, the real answer is to get local people to have the desired skills.

Learners did not think about technical education giving them an opportunity of becoming entrepreneurs in their field of study. Learners other comments revolved around "technical education was very popular at these schools because it was technical schools and that many



learners had to be turned away because of the limited space available ". With the skills, shortage in the country the government needs to look at the role that technical education will play in the country at school level. The establishment of FET colleges has addressed some of the issues, but this is just touching the surface of the problem in addressing the shortfalls.

**Table 4.5 On Completion of a Technical Education Course there is no need to go for additional training**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	11	36.7	47.8	47.8
	Disagree	10	33.3	43.5	91.3
	Neutral	1	3.3	4.3	95.7
	Agree	1	3.3	4.3	100.0
	Total	23	76.7	100.0	
Missing	No Answer	6	20.0		
	System	1	3.3		
	Total	7	23.3		
Total		30	100.0		

36.7 % and 33.3% of the learners stated that there is a need to go for further training, as they believed that what they learnt at school level was insufficient for them to start a job immediately as opposed to 3.3% of the learners who felt it was not necessary to go for further training. These 3.3% of the learners believe that they have the necessary skills to start work immediately. (Refer to Table 4A), the weighted average which is  $1.65 \geq 1.5$  which is quite disagree, likewise for chi-square of .001 is much less than the critical value at .05 level which means the null hypothesis is rejected so the response on the statement is quite significant.

This is in direct contrast to the table below which shows an opposing view.

**Table 4.6 The Workshops at my School are Sufficient to enable me to be adequately trained for the Occupational Work**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	6	20.0	22.2	22.2
	Disagree	5	16.7	18.5	40.7
	Neutral	9	30.0	33.3	74.1
	Agree	5	16.7	18.5	92.6
	Strongly Agree	2	6.7	7.4	100.0
	Total	27	90.0	100.0	
Missing	No Answer	2	6.7		
	System	1	3.3		
	Total	3	10.0		
Total		30	100.0		

The table above shows 23.4% of learners who agree that the workshops at the current school are able to train them adequately for the world of work as opposed to 36.7% of the learners who stated that the workshops were inadequate to train them for the world of work while 30% remains neutral or undecided. (Refer to Table 4A), the weighted average which is  $2.70 \geq 2.5$  which is undecided. The chi-square at .323 is greater than the critical value at .05 levels, so the null hypothesis is accepted means that the response on the statement is quite insignificant.

The researcher believes that the reason for this may be that "some of the modern and high tech machinery are too big to be housed within the school workshops and that these are the items the school cannot really afford". This will affect the quality of teaching at these schools in that learners are not fully exposed to the realities of what is required by industry, because they are not familiar with the tools and equipment that is currently used to produce bulk orders.

In response to this Question: 2.6 (Learners' Questionnaire) who in your opinion are the students/learners that choose a course in Technical/Technology education? Learners responded by saying: "Students who want to further their education in engineering" or "those who want to render a service as a job like an electrician or a plumber" and "future technicians" were expressed as opposed to educators and principals responses. The use of the word "render a service" suggests that these learners are looking at technical education as a key to providing them with a job as well as having met their ambitions. It suggests that the opinion of technical education by the future generation is changing; they do not consider technical education as being

inferior education. Instead, they are saying, "technical education is preparing us to use our creative minds and hands to design stuff which is in keeping with the design of the new FET curriculum. Learners also stated that "it is exciting, it is more like practical subjects, it teaches us a lot" "You have some knowledge when you finish school, you will know something about your trade, and you would not have to start from the beginning ".

On the other hand there were some learners who felt that the technical courses at their schools are not promoted enough, and that other people thought it was more beneficial to them to pursue an academic course. From the Table 4.6 above, it reflected in the quantitative results that 33.3% of the learners believed that people generally have a low opinion of learners that do technical subjects. It therefore suggests that not all learners are of the opinion that technical education is for intelligent, creative and innovative learners; there are still some learners that are of the opinion or perceive that technical education is “inferior education”

**Table 4.7 The Elevated Importance placed on Academic Subjects in schools caused Learners not to take Technical Subjects.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	3	10.0	12.5	12.5
	Disagree	6	20.0	25.0	37.5
	Neutral	6	20.0	25.0	62.5
	Agree	8	26.7	33.3	95.8
	Strongly Agree	1	3.3	4.2	100.0
	Total	24	80.0	100.0	
Missing	No Answer	5	16.7		
	System	1	3.3		
	Total	6	20.0		
Total		30	100.0		

The above results revealed perceptions of participated respondents in this study, they have expressed that 10 % strongly disagree, and 20 % disagree, while 20% remain neutral, compared to 26.7 % who agreed, while 3.3 % strongly disagreed .From the table it was noted that 30 % agreed that academic subjects still had an elevated importance as opposed to 30% of the respondents. This high response rate suggests that the academic subjects at school level still enjoy an elevated importance as compared to the technical subjects. (Refer to Table 4A), the weighted average is  $2.92 \geq 2.5$  which is undecided and the chi-square .170 is greater than the

critical value at .05 level which means the null hypothesis is accepted means the opinions of the learners on this statement is quite insignificant.

However, other responses to similar questions resulted in these responses by the learners. "The new education system teaches us to create our own jobs ", technical education is for intelligent learners, "I like to work with my hands" "People that are skilled and creative" Technical education is "beneficial to the students in that it makes them to be career orientated"

Although there were mixed responses from the learners the majority agreed that technical education was a benefit to learners and to the development of the country as a whole.

#### **4.4 The Value of Technical Education for the Youth in The Gambia**

In responses to second research question "How do principals, teachers, and learners ' perceive Technical/Technology Education as it is currently fostered at schools"?

Not really, because of the low status, principals still think that the technical subjects are a 'dumping ground for learners not academically inclined and that it is still regarded as 'inferior education'. While on the other hand, the other respondent was positive and stated that technical education was valued and recognized in the whole regions, but added that this was marginal because of the low numbers in the schools. Although many school offer technical education there are very few learners in each discipline meaning that learners too are reluctant to choose technical subjects due to the stigma attached to it. Others stated that nothing done to promote the subjects and assist the schools in terms of resources, this impact negatively on the development and promotion of the subjects. In tying up with the second research question, it appears that not much is been done to adequately foster these subjects in the Upper Basic School level. Due to the changes in the curriculum for both the GET and the FET phase, learners are offered a variety of subjects in the FET phase, but in the GET, it is only technology with its knowledge areas that has a basis for technical education.

##### **4.4.1 The Need for Technical Education in The Gambia**

Some principals agreed that there was a need for technical education in the province. One of the reasons given was that there was a huge "skills shortage" in the country and at present The Gambia was importing skilled labour. If technical education was promoted in the country we would not have to get skilled labour from other countries

According to the Principals, the main issue revolved around the "lack of human and material resources ", which seemed to pose a problem in the proper functionality of the curriculum at the schools.

One principal had this to say;"Human and material resources are scarce. The demands of the curriculum put a strain on the budget as modern technology is costly". "It appeared that teachers were trained or was a specialist in a particular field and was now asked to teach a general course knowing little about the other disciplines in a subject field. A respondent had this to say" "The out phased subjects had some area of specialization, however the new subjects are of a general nature and this does not provide some form of employment at the end of the course

At the same time the principals as respondents echoed sentiments of this nature that "technical education was too expensive and costly an endeavor and if funds were not available then its effectiveness in the classroom would be minimal". Industries are advancing but effective changes, have not yet taken places in technical school workshops, ideally equipping it to cope to meet the needs of the labour market

In terms of value to this question, do pupils respond to Technology/Technical Education in a positive way at your school asked to the principals, why do you say so? Principals seem to feel that it does have a "positive effect" on the learners as both boys and girls tend to opt for technical subjects today. One principal respondent had this to say, "Yes! They have a flair for the subject and give off their best in it. A very small number fail in their trade subjects."

Principals that had a technical bias as teachers and learners, opted to choose a technical school to be a principal , while the other was non-committal in his response. Principals felt that the learners enjoyed the "practical component of the coursework", and if more guidance were given, it would have a positive influence on the educators.

In response to the last question on value which reads as follows; "Do you feel that learners who are not academically inclined be given technical/technology learning areas rather than academic subjects?" "What is your reason for this"? The respondents were of a similar frame of mind and stated that it "is for learners who are not academically inclined", while the other respondent

stated otherwise, in that it was entirely the choice of the learner, by expressing these words "Learners are given the opportunity to choose on their own"

#### **4.4.2 Technical Education and Preparation for the World of Work.**

In response to the following question, "Do you feel that what is being taught in the Technical Education classes prepares learners adequately for the world of work? Almost 50% of the educator respondents stated "no" to this question suggesting that they did not agree that the current syllabus in technical education adequately prepares learners for the world of work. Some were not sure while the rest stated that it did prepare learners for the world of work. Analyses of the data revealed that there was a mixed response from group of 30 respondents, while some also suggested that further training was required after schooling was completed.

In response to the Question No: 2 on Value "Is a Technical Education course popular at your school, and why this is so? Almost all the educator respondents suggested that technical courses were popular at school for various reasons. Some said it was so because it "ensured employment," "learners liked working with their hands", "more access to employment" "learners wanted to own their own businesses". It therefore appears that educators believe that technical education courses at schools do assist the learners in doing something with their lives after they complete school.

#### **4.4.3 Industry Preparedness**

In response to the Question No: 3 on Value; how our current education system is catering to the challenges that face our youth today? The educator respondents were of a similar view that not enough was being done to promote technical education in the country. Some of the respondents' cited revealed this e.g. "One must address the needs of the country", "revise the existing curriculum, "address the social evils that plague society", "go back to the old system overspecialization ", many educators revealed that one should make use of "Outcomes based education in conjunction with the older methods" Some respondents also stated that we could "create more apprenticeships", "work in conjunction with industry and get the mega industries to sponsor courses thereby drawing learners to their company from this pool" It appears from statement like these that in order for the principals to adequately provide an institution that caters

for all aspects of the learners needs, and to train him/her properly requires a lot of financial implications which at present the schools cannot cope with.

On the other hand, learners response to this Question No 3.1: "Is a Technical/Technology education course popular at your school, and why this is so ",

Learners felt that technical education is regarded as popular at the schools selected. Most of the learners said that it was popular because it was a "trade school" Pupils enjoyed the courses and wanted to study it. With regard to the status learners felt that it had a "high status" because now learners can get a job with the technical subjects they learn. Some learners also suggested that it was an easy courses "Not a difficult course - possesses a good combination of courses ".

The table below reinforces what learners have to say about technical subjects being a waste of time.

**Table 4.8 Technical Subjects are not Important**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	21	70.0	77.8	77.8
	Disagree	3	10.0	11.1	88.9
	Strongly Agree	3	10.0	11.1	100.0
	Total	27	90.0	100.0	
Missing	No Answer	2	6.7		
	System	1	3.3		
	Total	3	10.0		
Total		30	100.0		

The above results reveal perceptions of participated respondents in this study, they have expressed 70 % strongly disagree, 10 % disagree, 10 % strongly agree and 6.7 % did not respond towards the above statement that technical education is not important. 80% disagreed that technical education was not important, while only 10% felt that is was not important. (Refer to Table 4A), that the weighted average  $1.56 \geq 1.5$  means that it is disagree and the chi-square at .000 is much less than the critical value at .05 level, so the null hypothesis is rejected and that the response on the statement is statistically significant. Learner respondents clearly see the value of technical education in our current education system in terms of job opportunities, job creation and entrepreneurial activities.

**Table 4.9. Schools Educate Learners to Enter Tertiary Institutions rather than to Obtain a Job**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	1	3.3	3.8	3.8
	Disagree	5	16.7	19.2	23.1
	Neutral	3	10.0	11.5	34.6
	Agree	14	46.7	53.8	88.5
	Strongly Agree	3	10.0	11.5	100.0
	Total	26	86.7	100.0	
Missing	No Answer	3	10.0		
	System	1	3.3		
	Total	4	13.3		
Total		30	100.0		

The above results reveal perceptions of participated respondents in this study, they have expressed 3.3 % strongly disagree e, 16.7 % disagree, 10 % are neutral, 46.7 % agree, 10 % strongly agree and 10% did not respond towards the above statement that; Schools educate learners to enter tertiary institutions rather than to obtain a job. It is noted that 56.7% agreed that schools should prepare learners for universities rather than go into jobs while 20% disagreed with this statement.(Refer to Table 4A), the weighted average which is  $3.50 \leq 4.5$  which is totally agree and likewise the chi-square of .000 is much less than the critical value at .05 level so the null hypothesis is rejected means that the responses on the statement are statistically significant Learners in their qualitative remarks suggested that although technical education had value , the concurrence with the quantitative results is displaying another reason . Learners still feel that they need to learn more and need to go to universities, especially to do courses in engineering and likeminded fields of study.

**Table 4.10 My Parents Refuse to Allow Me to do a Technical Course.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	14	46.7	53.8	53.8
	Disagree	6	20.0	23.1	76.9
	Neutral	2	6.7	7.7	84.6
	Agree	4	13.3	15.4	100.0
	Total	26	86.7	100.0	
Missing	No Answer	3	10.0		
	System	1	3.3		
	Total	4	13.3		
Total		30	100.0		



It was also evident that many parents are now encouraging their children to participate in technical education programmes as they can see the results of technical education in everyday life. The cross tabulation above clearly reflects that 66.7% of parents encourage their children to take a technical course. (Refer to figure 4A), the weighted average which is  $1.85 \geq 1.5$  which is disagree and the chi-square of .005 is much less than the critical value at .05 level which means that the null hypothesis is rejected and that the responses on the statement are statistically significant. This reflects a slight change in mindset as originally seen in the literature review in chapter two, where it was found that parents wanted their children to enter universities rather than to do a technical course at a technikon. Many parents preferred their children to graduate with a degree rather than a diploma.

**Table 4.11 People Generally have a Low Opinion of Learners that do Technical Subjects.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	1	3.3	4.2	4.2
	Disagree	4	13.3	16.7	20.8
	Neutral	9	30.0	37.5	58.3
	Agree	7	23.3	29.2	87.5
	Strongly Agree	3	10.0	12.5	100.0
	Total	24	80.0	100.0	
Missing	No Answer	5	16.7		
	System	1	3.3		
	Total	6	20.0		
Total		30	100.0		

The result placed in Table 4.11 demonstrates a reflection on learners' perceptions with regard to the question, which reads "People generally have a low opinion of learners that do technical subjects". It is noted that 16.6% of the learner population disagreed with this statement, 33.3% agree, while 30% remain neutral that is undecided, further reinforcing the fact that the status of technical education at schools amongst the learners is declining. (Refer to Table 4A), the weighted average which is  $3.29 \leq 3.5$  which is undecided and the chi-square of .075 is greater than the critical value at .05 level which means that the null hypothesis is accepted and therefore the responses on the statement are quite insignificant.

**Table 4.12 There is No Value in Taking a Technical Course at School**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	16	53.3	61.5	61.5
	Disagree	7	23.3	26.9	88.5
	Neutral	1	3.3	3.8	92.3
	Strongly Agree	2	6.7	7.7	100.0
	Total	26	86.7	100.0	
Missing	No Answer	3	10.0		
	System	1	3.3		
	Total	4	13.3		
Total		30	100.0		

76.6% disagree that there is no value in taking a technical education course, as opposed to 6.7%. This huge gap between the two percentages demonstrates that the learners can see the full potential that technical education has in this country. (Refer to Table 4A), that the weighted average which is  $1.65 \geq 1.5$  which is quite disagree and the chi-square .000 is less than the critical value at .05 level, therefore the null hypothesis is rejected that the responses on the statement is statistically significant.

**Table 4.13 What I Learn in a Technical/Technology Course is Not Useful to Me.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	15	50.0	60.0	60.0
	Disagree	9	30.0	36.0	96.0
	Agree	1	3.3	4.0	100.0
	Total	25	83.3	100.0	
Missing	No Answer	4	13.3		
	System	1	3.3		
	Total	5	16.7		
Total		30	100.0		

In response to the question on “What I learn in a Technical/Technology course is not useful to me”, learners’ responses were very positive and they believed that the type of education that they are receiving in the technical course is an excellent one. In the cross tabulation table above, it clearly reflects that 80% of the learners responded negatively to this question, therefore it stands to reason that technical education has made a huge difference in the lives of these learners and if this trend continues it will make a bigger impact in the future. Only 3.3% agree with this

statement. (Refer to Table 4A), the weighted average which is  $1.48 \leq 1.5$  which is strongly disagree and the chi-square of .003 is much less than the critical value at .05 level, so the null hypothesis is rejected which means the responses on the statement is statistically significant.

#### **4.5 Gender Involvement in Technical Education in the Upper Basic Schools**

Responses surrounding the perception on gender focused on the following. At the outset it must be stated that there were more males that responded to the questionnaires than females. This demonstrates that the percentage of male learners currently in technical courses at schools could be large compared to low female students taking a technical course. According to the Wisconsin Department of Public Instruction, (1990), gender equity is a broad social issue that can be profoundly influenced in the field of education. The goal of education is to provide opportunities to gain knowledge, skills and attitudes that prepare young people for the adult world. To accomplish this purpose, schools should follow goals and objectives, which communicate a philosophy of equality for all. The climate of equitable learning can help all students become aware of the careers available to them and help prepare them for changing roles at home and in the work place. Biased opportunities and differential expectations resulting from sex bias and role stereotyping can cause students to lose the freedom of career choice and limit their ability to learn and to succeed. Furthermore , sex bias and stereotyping may negatively affect a state's economy and quality of life by not utilizing the skills and talents of all students most effectively''

In this theme on gender, Question 1 (principal questionnaire), responses from female learners, and coping with the curriculum, principals stated that only one female educator was teaching technical subjects at their schools which is technical drawing, the rest responded that there was no female teachers' teaching at their schools.

In response to this question posed to the principals on gender issues which read "How do you find the female learners coping with their studies in Technical Education? Under the gender theme (Q3), it was found that female learners did respond well to technical subjects offered at these schools, this was a positive feature in this regard. These words are cited "Yes, most of the female learners prefer courses within electronic or electrical bias". There seems to be a gender bias with a preference for male dominance in the sphere of studies. This bias has not changed

much over the years. One principal had this to say in respect of whether technical/technology education is included in the secondary school curriculum for all learners (Q4). "Considering the paucity of humans and material resources at school, this may not be a sound idea. It would be better to have specialist schools then make technology a general course.

In the context of race and gender related to technical education, Malherbe (1977: 164) states that: "Industrial education or technical education evolved as a specific measure to combat 'poor whiteism' from the 1890s and as the means to train potential 'poor white' boys from the rural areas in industrial occupations such as shoemaking, carpentry, smithy work and so on, and to train 'poor white' girls in domestically-related occupations. In this period, the Dutch Reformed Church was instrumental in the establishment of industrial schools, in an attempt to alleviate the destitution and poverty of poor white children that accompanied war, epidemic and economic depression."The statement above gives an insight from a historically perspective into the stereotyping of both male and female learners into roles such as, "industrial occupations" for the boys and "domestically related occupations" for the girls even from the early days. However, this trend seems to be changing in terms of technical education today.

The elimination of sex bias and sex stereotyping has been a national priority in vocational education for many years. Policy makers and researchers continue to maintain the importance of encouraging non-traditional vocational choices when seeking to raise educational standards and occupational outcomes. A study of sources affecting sex equity of vocational teachers is critical to provide means of change that will lead to programs that are more productive. The local school principal typically has the greatest impact on school level employment decisions because the school principal is the chief executive officer of the basic unit in the school system. According to Linn (1988), the administrators are the key personnel to actually achieve and maintain sex equity in schools. They can best recognize appropriate strategies to overcome barriers to implementation. Therefore, principals' attitudes would logically be a key factor in elimination of sex bias in vocational teaching areas.'

In response to this question "whether both boys and girls involved in Technical Education?" the majority (70%) of the educator respondents were of the opinion that it catered for both boys and girls. However there was a few that said the technical subjects should be for boys only. Some

educators suggested that the girls should do hair care and other similar courses like beautician work. Remarks such as the one above suggest that stereotyping of gender roles is still prevalent among some of our educators in this study.

Other reasons that emanated from this question by the educators, revolved around that there were "not enough trained/qualified female teachers ", "it were the males who generally study towards a technical course', "that there was gender bias /gender domination in these subjects ". "Women still think it is for men to do" and that there was a "slow move of females in this field ".

With regard to the theme of gender, many educator respondents felt that technical education was still for men and that very few women engaged in the teaching of technical subjects. Some of the reasons that accounted for this trend were the gender bias that was attached to technical education. The outcomes of the research still suggest that technical education is still a male dominated field of study in The Gambia.

Le Roux, (1985: 149) cited in Corbett (1992) suggest that:"Technical Education will never get of the ground if it is confined to the slow learner. It should be demonstrated to be valuable for all and given a high status. It should be accessible to the complete intellectual ability range of boys and girls. "

**Table 4.14 Every Learner at School should be Engaged in Technical/Technology Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagrees	2	6.7	7.4	7.4
	Disagree	2	6.7	7.4	14.8
	Neutral	5	16.7	18.5	33.3
	Agree	9	30.0	33.3	66.7
	Strongly Agree	9	30.0	33.3	100.0
	Total	27	90.0	100.0	
Missing	No Answer	2	6.7		
	System	1	3.3		
	Total	3	10.0		
Total		30	100.0		

Data presented in Table 4.14 shows that 60% of the learners agreed that the entire school population should do a technical course, while only 13.4% disagree. This reflects that technical education is not to be dominated by male learners only but that it should be for all the learners

(both male and female) at the school and not according to gender. (Refer to Table 4A), the weighted average  $3.78 \geq 3.5$  which is quite agree and the chi-square of .058 is greater than the critical value at .05 level, therefore the null hypothesis is accepted that the responses on the statement is statistically insignificant.

According to Buzzell, (1993):

"Vocational education is part of the solution of the problem of work force competitiveness and is uniquely positioned to prepare students for skilled jobs in today's labour market. However, most vocational occupations remain strongly gender segregated, though there have been countless programs to encourage females to enter non-traditional occupations (Ehrhart & Sadler, 1987). For several decades, females seemed to be the "forgotten half" in vocational education because they have been either prepared for occupations in homemaking or low pay, dead-end jobs. This ultimately contributes to inappropriate vocational preparation and barriers inhibiting female participation in non-traditional programs. These female participants could otherwise benefited from a wide range of high-tech skills that offer long-term employment and higher wages."

#### **4.6 The Quality of the Curriculum Provision and Pedagogy of Technical Education**

According to a UNESCO report (1979) based on the developments of technical and vocational education it was found that:

Significant inequalities remain between general education and technical education in terms of status, funds respectively devoted to these areas and the proportion of population served. Significant inequalities also remain in terms of the opportunities available in rural ones.

Similar patterns are emerging in our education system at present in The Gambia are significant in equalities exist between general education and technical education, in terms of resources, physical and human.

As cited in an article on the key issues for the accelerated and shared growth initiative for growth, the article states that in terms of education and skills development for the country:

For both the public infrastructure and the private investment programmes, the single greatest impediment is shortage of skills - including professional skills such as engineers and scientists; managers such as financial, personnel and project managers; and skilled technical employees such as artisans and IT technicians. The shortfall is due to the policies of the new era and the

slowness of our education and skills development institutions to catch up with the current acceleration of economic growth.

The ASGIG responses range from medium-term educational interventions to raise the level of skills in areas needed by the economy to immediate measures to acquire the skills needed for the implementation of ASGIG projects.

In response to the theme on the quality of curriculum provision and pedagogy of technical education, one principal suggested that,

"The current syllabus is too broad and does not provide a vocation (self-employment) at all to learners. It however does provide some theoretical background to those wanting to pursue a career in Engineering." They felt that "educators needed more training and direction in teaching the same curriculum". They responded positively to the teaching of technology in the GET phase but felt that it was "too much in detail for the learners with regard to certain aspects". One respondent stated that the curriculum "The content of the learning area is too much in depth in certain aspects. Content covered in senior schools is expected to be taught in grade 9. "The new FET curriculum however allowed "learners to make positive career choices".

Principals further stated that, "Human and material resources are scarce. The demands of the curriculum put a strain on the budget as modern technology is costly". "The new FET curriculum is much generalized and educators are not qualified to embrace the effective teaching of this new curriculum". Principals collectively agreed that learners enjoyed technical education, as many of them had a flair for these subjects, and often gave of their best. Many learners specifically choose to attend technical schools because they wanted to pursue a career in the technical field. Principals were very positive about the way learners responded to Technical education at their schools. However when asked if learners who are not academically inclined be given technical education all the principals(100%) agreed, thus reinforcing the statement that technical education is still regarded as an "inferior education" in The Gambia. Perceptions on the value of technical education have not changed much, although technology is overtaking the world at present. Badroodien (1998:2) exploring the history of Technical Education in Africa states that historically "technical/vocational education in this country has always been preoccupied with issues related to **indigence, social and educational inferiority, and mental backwardness**".

This conclusion reflects similar views in the present day context amongst some technical high school principals with regard to curriculum provision and pedagogy of technical education.

Added to this, with regard to teaching the curriculum, principals stated that officials concerned (referring to MOBSE) need to provide more direction to the educators currently teaching these subjects, due to the fact that the current FET syllabus has changed and there are no specialists in these new fields of expertise.

Principal's responses to the questions based on their perceptions of PEDAGOGY, revolved around the following questions:

- trained teachers
- familiarity with the content
- learner's involvement in technical/technology education
- age of learner's engaged in technical/technology education
- selection of learners for technical/technology education
- technical/technology education and learner motivation
- reasons for technical/technology education into the school curriculum
- academic versus technical /technology education

In the theme on curriculum and pedagogy, principals were of the opinion that their teachers at their schools teaching the new FET subjects in technical education needed more support and development to teach these subjects more effectively, especially from the ministry concerned. They saw a need for more trained educators especially as the curriculum had changed but the educator's knowledge on the new curriculum was not the same. The principals echoed sentiments that "the country needs more skilled people". Principals at technical secondary schools kept abreast of the new curriculum and were au fait, with the current changes in the syllabus. They believed that learners should be actively involved in the learning of both Technologies in the GET phase and technical education in the FET phase. They also believed that it could be made available to all learners at their schools. Selection of learners for the course be done by interviewing potential learners, while some declared that it is for learners who had flair for the subject. All principals said that a technical education course at their schools improved learner motivation.



Career choices and employability was the responses received in response to question seven on the theme on curriculum and pedagogy. Some respondents pointed to technical education as desirable example of integrating academic subjects with technical subjects. Principals (80%) stated that it was a good idea to incorporate a course that had both academic as well as technical courses included. The following statement echoes the sentiments expressed by the principals:

"The curriculum should be developed to meet the different levels of functioning of the learners" and "I would prefer that the technical schools offer a course to learners that prepare them to own their own businesses after leaving school. In this way, we will be addressing the unemployment issue of the country. Learners with low academic achievement should not study academic subjects"

All the Principals are still of the opinion that learners who choose to study a technical course at schools is of poor academic quality. Few principals spoke about learners entrepreneurial skills in their area of specialization, yet most spoke about learners gaining employment in some workplace.

#### **4.6.1 Skill of Teacher's in Teaching Technical/Technology Subjects**

The majority of the educator respondents that teach a technical course stated that they were "well skilled", 'highly skilled '. Educators that did not teach a technical course but who participated in this survey , stated that they were "not skilled" On the other hand many educators stated that after the introduction of the new FET curriculum in the technical subjects, many of the educators feel inadequately trained to perform this task effectively.

#### **4.6.2 Setbacks/Problems Encountered with Technical/Technology Education at Schools**

In response to this question on the setbacks and problems the majority of the educator respondents said that it was because of "lack of resources, consumables", some mentioned that "no workshops no equipments" in the schools for practical demonstration. Majority stated that because of "under qualified educators", the cause for concern was teaching an effective curriculum. Maximum respondents felt that they are not truly equipped to teach the new curriculum as there were "hardly any or a few workshops held to orientate educators in the new curriculum ", and this caused a major setback with regard to the implementation of the curriculum as expected by the department of education. To add to this there is very little support and assistance from the education ministry, as stated by these remarks, "no support from

management ". "No guidance from either the ministry of education or government in these subjects ", "No proper guidelines are available" and "assessment strategies are not clearly defined". It therefore makes sense that the manner in which implementation of the current curriculum has been cascaded to the educator to fulfill, is not working. Some respondents are correct in saying that "there are no textbooks or very few available at present" and this is obvious when educators are visited at schools, the major problem being the unavailability of textbooks for the new subjects. The majority of the educators stated that technical education was regarded as "inferior education" because "the courses seem to attract the weaker pupils". Statements such as these tend to reinforce earlier statements in the literature review that technical education is "inferior education".

#### **4.6.3 Syllabus Relevance**

In response to this Question (No.3 Educator's Questionnaire) on syllabus relevance, some educators were of the opinion that the syllabus does not teach relevant information and this was expressed as "Not in technical education" "each educator is doing his own thing" and "partly relevant, not entirely". Others were of the opinion that the syllabus is relevant and taught the learners what they needed to know. In keeping with the ASGIG and JIPSA programmes, it appears that the current syllabus for technical education to equip The Gambia with 'skilled personnel' is failing

#### **4.6.4 Redesigning the Syllabus**

Responding to this question (No.4 Educators' Questionnaire) on the redesigning of the syllabus, the educator respondents stated that they would include "modern technological processes", because most of the workshops used to teach the curriculum today has outdated equipment. Some 85% of the respondents stated that they would "enhance the practical component" so that the learners can get hands on approach to the content. Respondents also stated that they would like to "teach learners entrepreneurial skills so that they can own their self businesses" and be employed, while other respondents stated that a "general course in mathematics and science is needed" to improve the level of performance in the technical field in terms of being creative, innovative and enterprising. The majority of the respondents said that the current syllabus has no relevance as stated by this remark, "they must be relevance to industry and learners must write for a trade test ", "it should be taken on a more hands on approach", "some also felt that we

should "go back to the past and specialize in each area". Some (70%) educators stated, "What we have now is a broad overview, this is not going to make learners employable, there is a need for further training". Judging from the statements above it is clear that the educators are not happy with the current syllabus in technical education, as it does not allow one to specialize in a specific stream, and many felt that what is currently being taught to the learners does not adequately prepare them for the occupational work.

Although the educators are skilled in teaching their respective fields they felt that there were many areas in the current curriculum that needed addressing e.g. more resources, more hands on workshops and more guidance from the education department specialists. Many were of the opinion that "there is a need for a mindset change ", i.e. that technical education is not for the 'lazy' learners, but that the "department of education can make it a compulsory course for all learners at lower and Upper Basic school level in The Gambia." If this was possible then we would be following the Japanese model education system.

With regard to the pedagogical aspect of this research, it became obvious from the educator respondents that some of the grievances bordered around support from Departmental Officials as cited in the statement below:

"It is disturbing to note that whilst every government recognizes the importance of Technical Education, Mathematics and Science Education, the departmental officials charged with this responsibility of furthering technical education are not providing much support at the grass roots level.: whilst all other learning areas/subjects have had their FET training successfully, textbooks are non - existent, there appears to be a lack of capacity. "

It makes sense therefore that more support is expected from the departmental officials, more textbooks are to be written, more guidelines to be given and that the resources and material to undertake the effective teaching of these subjects need to be made available to schools.

In response to the question whether "what is being taught in the Technical Education/Technology Education classes prepares learners adequately for the world of work." 90% of the learners said "yes "and stated that technical education does to a certain extent prepare one for the occupational work. Another response was, "Yes, they teach us everything about the subject and makes sure

that you understand everything. The teachers sort put us in a job position and we have to react ".Since the course outline incorporates both theory and practical work learners felt that they were at an advantage in that they get first hand information at school level of what will take place in a work environment. Learners had this to say, "They want to learn more about it, and enjoy learning how to make new things ".

#### **4.7 Conclusion**

In response to research question one, educator respondents were of the opinion that the general trend in technical education is still perceived as "inferior education" today as it was for yesterday, that perception has not changed much. On the second research question, respondents felt that technical education had value for the economic growth of the country, in that it would assist in providing learners with employment, and to assist them in opening their own businesses and allow them to be creative in their sphere of expertise.

Perceptions of some of the stakeholders with regard to the status of the technical subjects need to change so as to create a powerful technical training environment. It also reflects the current status quo that exists in most schools around the country that offer technical education, common variables are lacking, e.g. skilled human resources, financial assistance by the state, relevant tools, equipment and machinery used in industry today and the relation of the current syllabus to the actual work environment. On the positive side the learners see the need and value for technical education in the country as a means to find jobs and to earn a living in the future , they do not see technical education at schools as "inferior education'.

## **CHAPTER V**

### **SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The primary purpose of this study was to determine if there were differences in perceptions amongst technical educators, principals, learners and training and development professionals regarding the current status of technical/technology education at the Upper Basic Schools in The Gambia. In this chapter the researcher summarize and drew particular recommendations and make conclusions.

#### **5.2. Findings**

The main findings are categorized into the following;

##### **5.2.1. The Role of Technical Education in the Education System**

- Historically, technical education had a stigma of inferiority attached to it. Not much importance was given to a person who participated in these programmes.
- Perceptions of the principals and educators were very similar to earlier views as highlighted in the literature review in chapter two.
- The older respondents (principals and educators) still believe that technical education was "inferior education" as opposed to the learners, who felt that technical education has a promising future in The Gambia.
- However the perceptions of the learners, was quite different. They felt that technical education had a very "high status" and that learners enjoyed studying this course because it afforded them with the opportunity of obtaining jobs after they finish school.
- Learners are very positive an optimistic of technical education for the development of the country.
- The role played by the Accelerated and Shared Growth Initiative for The Gambia (ASGIG) and Joint Initiative for Priority Skills Acquisition (JIPSA) in trying to eradicate the skills shortage and unemployment in the country is testimony to the fact that not much is being done to address this problem.

### **5.2.2. Education and skills development**

- For both the public infrastructure and the private investment programmes, the single greatest impediment is shortage of skills - including professional skills such as engineers and scientists; managers such as financial, personnel and project managers; and skilled technical employees such as artisans and IT technicians.
- The shortfall is due to the policies of the republican era and the slowness of our education and skills development institutions to catch up with the current acceleration of economic growth.

### **5.2.3. The value of technical education to society**

- The changing pace of industry found the Gambian nation without adequately prepared workers to meet the needs of the country. The present regime prior to 1994 exacerbated the condition, and the need for better training became evident. Many voices were raised in consideration of a new conceptual approach.
- Technical education holds a high value in terms of training at school level.
- Many learners, educators, and principals agreed that technical education had very good value to society, in that it could meet the needs of addressing the skills shortage in our country.
- Technical education has evolved in response to social, educational, industrial and economic changes, and now provides subjects which are both demanding and relevant.

### **5.2.4. The role of gender bias in technical education**

- Although, both boys and girls did technical education at these selected schools. It was still male dominated.
- Girls, it appears were still reluctant to take technical education because they felt that they will be treated different by the boys.
- Some female respondents said that they will not be able to understand it, hence reinforcing the stereotyping of gender bias on technical education. It must also be noted that in not one of the schools sampled were there any female educators that taught technical subjects.

- Nevertheless, the overall status for females in non-traditional programs remains relatively low

### **5.2.5. Findings in respect of the curriculum in technical education**

- In most cases it was found that the curriculum did not cater adequately of the needs of the learners.
- Investigation of the courses proposed and taught in our schools leads one to note these prominent inadequacies in manual training.
- That the course does not prepare one adequately to enter the occupational work. More theory and very little practical work took place at the centre.
- Educators did not take into consideration the uniqueness of the learner in order to provide for the individuality of the child. Each learner had to conform to the system.
- Learners are not motivated enough in their tasks. The work was all prescribed in a fixed course. Hardly any scope for creativity and innovativeness.
- Placing the emphasis upon the product as the objective, rather than upon the growth of the child
- The course structure is too generalized and not specific enough to allow learners to be adequately trained to suit a particular job market.
- Finding good qualified technical education teachers was a problem. No new teachers are being trained, or if training has begun then they will be ready to work only in a very short period of time.
- In The Gambia, the problem is not a unique one but an international one .However very little is being done to train teachers in the technical/technology fields.

### **5.3. Conclusion**

In The Gambia one of the problems industries encounter is that there is very little linkage between the educational system and the employee skills needed by the private sector, especially in Upper Basic, Lower Basic and pre- schooling. Another issue is the brain drain of highly qualified, skilled workers leaving the country. There is a growing shortage of workers in the fields of engineering, accounting and information technology. Although The Gambia is relaxing its restrictive immigration, that is not a sustainable answer.. "The real answer is to get local people to have the desired skills. Currently not much consideration has been given to the

development and fostering of technical education (desired skills) across secondary schools in The Gambia. To address the huge skills shortage and the high rate of unemployment, the youth of our country need to be trained in appropriate technical fields in order to overcome these shortfalls and employment imbalances. Perceptions of the role and value of technical education in The Gambia differ considerably amongst principals, educators and learners with regard to the status of technical education in the Upper Basic Schools. Principals and educators still believe that technical education is "inferior education" while learners on the other hand are positive and excited about the role of technical education in the education system. They feel it plays a major role in their lives and the skills and knowledge that they learn provided them with skills to do something "constructive and worthy" with their lives. The way technical education is currently fostered in the Public Schools is inadequate in that many of the educators teaching these subjects are not fully prepared to do so. The fault lay with the inadequate training that educators received insufficient support materials, inexperienced educators, not enough support from Ministry of Basic and Secondary Education, and little understanding of the content and assessment of the new subject fields.

It is the researchers belief that many educators that are currently teaching technical subjects do not have the necessary know how of what is actually expected of them in the new curriculum. There are several factors that affect the recruitment and retention of women and students in the technical education fields. Due to historical past of our first republic many learners were deprived of a technical education in the previous DET schools. Many of them are still denied the opportunity on engaging in technical education because many schools are ill equipped to deal with this, or that they do not have the educators to teach these subjects. The same holds true for women who become involved in technical education both as teachers and as learners. In this research study, it shows that there are more males than females enrolled for the technical courses. Women are still afraid to venture into an avenue that was previously dominated by men, although liberal feminism is alive and well in The Gambia today. The theory of behaviorism and constructivism that underpins technical education still hold true for the type of education that is delivered in schools today. However, it is more behaviorisms rather than the constructivist approach that is adopted by most educators in the field of technical education today.



## 5.4 Recommendations

- As low status and low inferiority is been attached to technical/technology education in The Gambia, there is need to appoint Permanent Secretary/Director of Technical Education to address the situation..
- Technical/Technology Education should be made compulsory right from the Lower Basic to senior secondary level.
- There needs to be a huge "mind set" change to the way technical education is perceived in the country. Technical education needs to be given its due recognition so that its true impact can be seen in all sectors of economic growth and development in the country.
- In view of the high unemployment rate in the country the government needs to look more closely at the role or potential that a technical education course will have in addressing this dilemma
- The new FET curriculum is too generalized and does not prepare learners adequately for the world of work. No programmes are in place to address hands on work experience like the school to work programmes adopted by America and Britain. More theory rather than practical experience is taught at the Upper Basic Schools.
- The huge shortage of properly trained technical educators resulted in schools not offering technical subjects though they don't have the facilities to do so. Not offering technical courses at schools still compromises the child in their schools because at presently, learners had very little exposure to technical courses, and nothing has been done to address this situation.
- No workshops, no equipments for practical demonstration, resulting in it not being in line with what is currently used in industry today.
- Teachers currently teaching the new curriculum are not adequately trained to teach the new syllabus, as most have been specialist teachers in the past and are not sure how to approach the new curriculum. There is very little support from Departmental officials in this field, to do justice to the training that technical educators need in their respective fields.
- The issue of training more female educators in the technical field also needs to be addressed, because at present there are only few in the entire regions. In order to address this gender imbalance and bias, more female educators need to be trained in the technical fields.

- Industry needs to play a pivotal role in school activities to ensure sustainable economic growth of our country and to assist in the eradication of unemployment and in the development of the skills shortages by encouraging learners to visit their industries on an ad hoc basis to familiarize learners with the reality of what is expected of them at work level.
- Tertiary institutions need to embark on programmes that encourage learners doing technical courses to continue with their studies at degree levels.
- The future acceptability of technical subjects as entry qualifications for higher education would provide substantiation of the growing strength of technical education in the curriculum.
- Due to the technologically changing environment, the mindset of all stakeholders needs to change in terms of giving technical education the due recognition that it deserves and equating on an equal status as all other academic subjects.
- Constructivism rather than behaviourism needs to be used as the basis in the teaching of technical subjects, due to the nature of the new curriculum in the FET phase. However many educators still believe in making use of behaviourism in their teaching methodologies. It is the intention of the new technical curriculum to create; creative, thinking and innovative learners by making them solve problems in a more constructive manner.

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## APPENDIX A

**Islamic University of Technology(IUT)**  
**Department of Technical and Vocational Education(TVE)**  
**Boardbazar,Gazipur 1704**  
**Dhaka-Bangladesh**

**Learner Questionnaire**

**Number: -----**

**Dear respondent,**

I am currently conducting research on "**A Study of Technical/Technology Education in The Gambia Upper Basic Schools**" and will value your input by in filling in this questionnaire.

Please indicate your answer by means of an **X**, and where required please use the spaces provided for your written responses to questions . I thank you for your co-operation in filling out this questionnaire.

Do not write your name on the questionnaire .

### SECTION A

#### **Biographical Details**

**1.1 Gender:** Male/female

**1.2 Age in years :-----**

**1.3 Race:** White/Indian/ African or other-----

**1.4 Qualification:** Grade 7/8/9

**1.5 Experience in School: -----Years**

**1.6 Address:-----**

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**1.7 Are you currently engaged in any form of learning Technical/Technology Education Education? Yes/No**

**1.8 If yes, what form are you exposed to? -----**

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**1.9** Why did you choose to study a Technical /Technology education course? Choose from the lists below;

- I wanted to do engineering at University (1)
- I wanted to study architecture (2)
- I wanted to open my own business (3)
- I enjoy working with my hands (4)
- I prefer to work in a workshop environment (5)
- I wanted to learn technical/technology skills (6)
- I wanted to work in a practical environment with no paperwork (7)
- I enjoyed Technical Drawing as a subject. (8)
- I liked my teacher. (9)
- I felt it was more beneficial to me than the academic subjects were. (10)
- I am a creative person and I like to make things. (11)
- I did it as a hobby, because I am very academically inclined (12)
- I felt that I could get a job with a Technical Education course. (13)
- It is an easy course to pass. (14)

Other reasons not specified above:-----

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## **SECTION B**

### **PERCEPTIONS**

**2.1** Do you feel that what is taught in the Technical /Technology Education classes prepares learners adequately for the occupational work?

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**2.2** What do you feel teachers of other learning areas, and other learners; think about a Technical/Technology education course at your school?

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**2.3** As a learner , how do you view the changes that are taking place in the technical/technology educational area in schools at present?

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**2.4** Are you comfortable about learning technology at school? Why is this so?

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**2.5** What in your opinion is the status of these technical/technology subjects at your school?

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**2.6** Who in your opinion are the students/learners that choose a course in technical or technology education? -----

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## **VALUE**

**3.1** Is Technical Education/Technology education course popular at your school, and why this is so.

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**3.2** Are you familiar with the technology learning area content?

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## **GENDER**

**4.1** Are both boys and girls involved in Technical/Technology course at your school?

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**4.2** Why wouldn't you take a Technical/Technology Education course?

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**4.3** Do you have any female teachers teaching technical /technology subjects at your school?  
How would you rate them?

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**CURRICULUM**

**5.1** What are your current learning areas at school?

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**5.2** How do you feel the learners are coping with the new curriculum at school in terms of technical/technology learning areas?

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**5.3** What are some of the setbacks/problems that you encounter with Technical /Technology Education at your school?

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**5.4** Do you feel that the syllabus/curriculum is relevant to the needs of the learners? Please elaborate!

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**5.5** What do you feel are the current challenges facing the youth of today with regard to education

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**5.6** How can we address these problems? -----

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## SECTION THREE

USE THE FOLLOWING SCALE TO ANSWER THE QUESTIONS.

PLEASE PUT A TICK (√) IN YOUR CHOICE OF RESPONSE.

The following statements represent opinions, and your agreement or disagreement will be determined on the basis of your particular beliefs. Kindly check your position on the scale as the statement first impresses you. Indicate what you believe, rather than what you think you should believe..The technical subjects refer to subjects like **Technical Drawing, Woodwork, Metalwork,**

The following scale is used:

1. Strongly disagree      2. Disagree      3. Neutral      4. Agree      5. Strongly agree

No:	Statements	5	4	3	2	1
1	Every learner at school should be engaged in Technical/Technology Education					
2	Schools educate learners to enter tertiary institutions rather than to obtain a job					
3	Technical subjects are more popular than academic subjects					
4	One can open a business at home with technical education course					
5	Technical subjects are not important subjects					
6	The current syllabus in technology/technical subjects is inadequate for the current employment market					
7	Teachers are not suitably qualified to instruct me properly in technology/technical subjects.					
8	My parents refuse to allow me to do a technical course .					
9	The workshops at my school are sufficient to enable me to be adequately trained for the occupational work					
10	My teachers mock at me because I do a technical course.					
11	A technical course at school is more expensive than a normal academic course.					
12	Some schools do not like to offer technical subjects, although they have the facilities to do so					
13	I prefer to do a white collar (office) job than to work with my hand.					
14	What I learn in a technical/technology course is not useful to me.					
15	On completion of a technical education course there is no need to go for additional training					
16	The technical education course in my school concentrates more on theory than on practical work.					
17	The elevated importance placed on academic subjects in					

	schools caused learners not to take technical subjects.					
<b>18</b>	My friends thought that I was stupid to take a technical course at school.					
<b>19</b>	There is no value in taking a technical course at school					
<b>20</b>	People generally have a low opinion of learners that do technical subjects.					

**21 . Do you think that the government should fully finance all technical subjects at school level?  
( YES/NO)**

Give reason for your answer; \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**22. Do you feel that learners should be properly guided and not misled when selecting courses at school?**\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**23. How does your principal feel about technical subjects?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**24. Are there any other comments/suggestions that you wish to make based on the current topic?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I take this opportunity in thanking you for taking the time and effort in completing this questionnaire, your input will be of great value to the research study as well as to the Status of Technical /Technology education as a whole

**MR BAI NDURE (Researcher)**

## APPENDIX B

**Islamic University of Technology (IUT)**  
**Department of Technical and Vocational Education (TVE)**  
**Boardbazar, Gazipur 1704**  
**Dhaka-Bangladesh**

**Educator(Teacher) Questionnaire**

**Number:** \_\_\_\_\_

**Dear respondent,**

I am currently conducting a research on "**A Study of Technical/Technology Education in The Gambia Upper Basic Schools,**" and will value your input by obliging in filling in this questionnaire.

Please indicate your answer by means of an **X**, and where required please use the spaces provided for your written responses to questions. I thank you for your co-operation in filling out this questionnaire.

Do not put your name on the questionnaire. **ALL INFORMATION PROVIDED BY YOU WILL BE TREATED AS CONFIDENTIAL**

### **PART ONE-SECTION A**

#### **Biographical Details:**

**1.1 Gender:** Male/Female

**1.2 Age in years:**-----or older-----

**1.3 Race:** White/Indian/B lack African

**1.4 Qualifications:** Postgraduate/Degree/Certificate/Diploma/matric or other-----

**1.5 Experience in Teaching:** -----years

**1.6 Address:** -----  
\_\_\_\_\_  
\_\_\_\_\_

**1.7** Are you currently engaged in any form of teaching /learning Technical/Technology Education? **YES/NO**

**1.8** If yes, what form are you exposed to? \_\_\_\_\_  
\_\_\_\_\_



**1.9** Where did you receive this education from? **School/College/Skil training center**  
**/University; other**\_\_\_\_\_

**1.10.** Why did you choose to study a Technical Education course? Choose from the lists below;

- I wanted to do engineering at University (1)
- I wanted to study architecture (2)
- I wanted to open my own business (3)
- I enjoy working with my hands (4)
- I prefer to work in a workshop environment (5)
- I wanted to learn technical/technology skills (6)
- I wanted to work in a practical environment with no paperwork (7)
- I enjoyed Technical Drawing as a subject. (8)
- I liked my teacher. (9)
- I felt it was more beneficial to me than the academic subjects were. (10)
- I am a creative person and I like to make things. (11)
- I did it as a hobby, because I am very academically inclined (12)
- I felt that I could get a job with a Technical Education course. (13)
- It is an easy course to pass. (14)

**1.11** What subjects/learning areas are you currently teaching at school?\_\_\_\_\_

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## **SECTION B**

### **Perceptions.**

**I.** What do you feel teachers and other learners (not technical); think about a Technical education course.\_\_\_\_\_

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2. What in your opinion is the status of technical subjects at schools today? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Who in your opinion are the students that choose a course in Technical education? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Value;**

1. Do you feel that what is being taught in the Technical Education classes prepares learners adequately for the world of work? \_\_\_\_\_  
\_\_\_\_\_

2. Is Technical Education course popular at your school, and why is this so.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Do you feel that our current education system is catering to the current challenges facing the youth of today? \_\_\_\_\_  
\_\_\_\_\_

4. How can we address these problems? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Gender**

1. Are both boys and girls involved in Technical Education? \_\_\_\_\_  
2. Do you have any female teachers, teaching technical subjects at your school? \_\_\_\_\_  
3. If no, why do you think this is so? \_\_\_\_\_  
\_\_\_\_\_

**Pedagogy**

1. How skilled are you as a teacher in teaching Technical/Technology subjects? \_\_\_\_\_  
\_\_\_\_\_

**2.** What are some of the setbacks/problems that you encounter with Technical/Technology Education at your school?\_\_\_\_\_

\_\_\_\_\_

**3.** Do you feel that the syllabus is relevant and teaches you what you want to know?

\_\_\_\_\_

\_\_\_\_\_

**4.** If you could redesign the syllabus, what would you include in it?\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Part Two

The following statements represent opinions, and your agreement or disagreement will be determined on the basis of your particular beliefs. Kindly check your position on the scale as the statement first impresses you. Indicate what you believe, rather than what you think you should believe..The technical subjects refer to subjects like **Technical Drawing, Woodwork, Metalwork,**

The following scale is used;

- 1 **Strongly disagree**
2. **Disagree**
3. **Neutral**
4. **Agree**
5. **Strongly agree**

No:	Statements	5	4	3	2	1
1	The entire school population should be engaged in Technical Education					
2	Schools should prepare learners for Universities rather than to go into jobs.					
3	Technical subjects are more popular than academic subjects.					
4	It is easy to open a business at home with the Technical knowledge and skills.					
5	Technical subjects are a waste of time .					
6	The syllabus for technical subjects does not prepare one for the world of work..					
7	Teachers who teach technical subjects should be from industry rather than colleges or universities.					
8	The training facilities at school are sufficient to train learners adequately					
9	My colleagues look down on me because I teach a technical course.					
10	Some schools do not like to offer technical subjects , although they have the facilities to do so.					
11	I like to do a white collar job than to work with my hands					
12	I derive great personal satisfaction in teaching a Technical course					
13	After completing a technical course there is no need to go to a tertiary institution					
14	The technical course in my school is mostly theory rather than practical work					
15	The importance attached to academic subjects at schools resulted in many learners not taking technical subjects.					
16	My wife/girlfriend thought I was stupid to take a Technical course at school.					
17	There is no value in taking a technical course at school					
18	People generally have a low opinion of learners that do technical subjects.					

**19.** Do you think that the government should fully finance all Technical subjects at school level?  
**(YES/NO)**

Give reason for your answer; \_\_\_\_\_

\_\_\_\_\_

**20 .** What are the recommendations you will make to improve the status of technical education at schools? \_\_\_\_\_

\_\_\_\_\_

**21.** Do you feel that learners should be properly guided, and not misled when selecting courses at school? \_\_\_\_\_

\_\_\_\_\_

**22.** How does your principal feel about technical subjects offered at your school? \_\_\_\_\_

\_\_\_\_\_

**23.** Do you have any additional comments/suggestions you would like to add? \_\_\_\_\_

\_\_\_\_\_

I take this opportunity in thanking you for taking the time and effort in completing this questionnaire; your input will be of great value to the research study as well as to the Status of Technical/Technology Education as a whole.

**MR BAI NDURE(Researcher)**

**TABLE 4.1(Appendix B) BIOGRAPHICAL DETAILS FOR EDUCATORS**

<b>Educator</b>	<b>Gender</b>	<b>Age</b>	<b>Race</b>	<b>Qualification</b>	<b>Teaching Experience</b>	<b>Location</b>	<b>Current Teaching Tech.Edu</b>	<b>Teaching Technical</b>	<b>Studied Technical</b>	<b>Motivation For choosing Technical Course (Question 1.10)</b>
<b>Variable</b>	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.5</b>	<b>1.6</b>	<b>1.7</b>	<b>1.8</b>	<b>1.9</b>	<b>1.10</b>
1	M	43	African	HTC	12yrs	Bakoteh	Yes	MW	School/ College	5
2	M	37	African	Certificate	8yrs	Sukuta	Yes	N/A	Skill Training Center	4,5,8
3	M	34	African	Diploma	7yrs	Bakadaji	No	N/A	N/A	N/A
4	M	44	African	Certificate	17yrs	Brikama	Yes	WW/TD	GTTI	10
5	M	48	African	Cert/Diploma	22yrs	Bundung	Yes	MW&TD	Sch/polyt	1,4,8,11,12
6	M	N/A	African	Certificate	14yrs	Pakalinding	Yes	MW	Skill train Center	All options
7	M	36	African	Cert/Diploma	12yrs	Kerewan	Yes	WW	Skill.train Center	4&6
8	M	40	African	Certificate	15yrs	Manduar	Yes	WW/TD	Sch/Colleg	2
9	M	39	African	Certificate	18yrs	Nioro Jattaba	Yes	MW/TD	College Skill.tr.cr	1,5,6,8,10 11,13

10	M	30	African	Diploma	5yrs	Farafeni	Yes	TD	School	1
11	M	37	African	Diploma	13yrs	Jan.Jan.B	Yes	N/A	College	2
12	M	34	African	HTC/HNC	1yr	Bansang	Yes	TD/WW	Skill.Trai. Center	1,2,6,13
13	N/A	32	African	Certificate	14yrs	KunkuJan	Yes	Art/craft TD	College	11
14	M	30	African	Certificate	5yrs	R.Kal.Int	No	N/A	N/A	N/A
15	M	26	African	Certificate	3yrs	Kanifing	Yes	TD	School	1
16	M	42	African	Certificate	17yrs	Latrikunda	Yes	WW	College	13
17	M	31	African	Certificate	7yrs	Kaiaf	Yes	N/A	College	6,11
18	N/A	56	African	Certificate	35yrs	Mandinari	Yes	WW/TD	College	6
19	M	33	African	Certificate	11yrs	Gunjur	Yes	WW	Skill.Tr.Cr	2,6,8,13
20	M	46	African	PTC/HTC	17yrs	Tallindin	Yes	N/A	College/ University	N/A
21	M	42	African	Certificate	18yrs	Kabafita	Yes	N/A	College	2
22	M	51	African	Certificate	30yrs	Abuko	Yes	TD/MW	GTTI	1 & 6
23	M	39	African	Certificate	10yrs	Essau	Yes	MW	College	N/A
24	N/A	37	African	PGD	9yrs	Old.Ydm	Yes	MW	Skill.tr.cr.	11
25	M	38	African	Certificate	10yrs	Jamisa	No	N/A	School	N/A
26	M	49	African	Certificate	24yrs	St.There's	Yes	N/A	School/ College	1,6 & 13

27	F	24	African	Certificate	3yrs	Nyakoi	Yes	TD	School/ College	1,2 & 8
28	N/A	60	African	PTC	12yrs	G.Banjul	No	French	College	None
29	M	46	African	Certificate	19yrs	Fatoto	No	Agri/Sci	College/ University	None
30	N/A	56	African	Certificate	35yrs	L.German	Yes	TD&WW	College	6



## APPENDIX C

**Islamic University of Technology(IUT)**  
**Department of Technical and Vocational Education (TVE)**  
**Boardbazar,Gazipur 1704**  
**Dhaka-Bangladesh**

### Principal's Questionnaire.

Dear respondent

I am currently conducting a research on "A Study of Technical/Technology Education in The Gambia Upper Basic Schools" and will value your input by obliging in filling in this questionnaire.

Please indicate your answer by means of an **X** and where required please use the spaces provided for your written responses to questions. I thank you for your co-operation in filling out this questionnaire.

Do not put your name on the questionnaire.

### PART 1

#### Biographical Details/Personnel

Name of School: \_\_\_\_\_

Distric: \_\_\_\_\_

1.1 Gender: male/female

1.2 Age in years: \_\_\_\_\_

1.3 Race: white/African

1.4 Qualifications: \_\_\_\_\_

1.5 Experience in School: \_\_\_\_\_ years

1.6 No of years as Principal: \_\_\_\_\_ years

1.7 Address: School/home \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**1.8** Are you currently engaged in any form of teaching Technical/Technology Education at your school? \_\_\_\_\_

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**1.9** Have you ever being involved in the teaching of a Technical subject as a teacher. If yes, please reflect which one. \_\_\_\_\_

**1.10** Have you ever done any Technical Subjects as a pupil at school? If yes , why.

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## **Part 2**

### **PERCEPTIONS**

**1.** What are your perceptions about Technical Education in general as part of the school curriculum? \_\_\_\_\_

**2.** How do you feel about the learning area of Technical/Technology Education in the GET pase? \_\_\_\_\_

**3.** In your opinion how do the teachers at your school perceive Technology/Technical Education? \_\_\_\_\_

**4.** In the past Technical Education was perceived as an education for learners with little academic ability. Is this perception the same for Technology education today?

**5.** If the answer to the question above is no, how do you think perceptions have changed.

**Part 3**

**VALUE**

1. How do the present changes taking place in the educational curriculum affect you as a principal? \_\_\_\_\_

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2. In the past we had subjects like, Basic Techniques, Industrial Arts, and other Technical subjects, today we have Technology/Engineering , Manufacturing and Welding and fabrication etc. How do you view these changes in these subjects?

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3. Do pupils respond to Technology/Technical Education in a positive way at your school? Why do you say so? \_\_\_\_\_

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4. If you had the choice of being principal of an Academic school or a Technical school which would you choose and why? \_\_\_\_\_

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5. How do the learners respond to Technology/Technical Education at your school?

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6. Do you feel that learners who are not academically inclined be given technical/technology learning areas rather than academic subjects? What is your reason for this?

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**Part 4**

**GENDER**

1. Do you have any female members of staff teaching a Technical subject at your school? If yes , how many and which subjects. \_\_\_\_\_

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2. Do female learners respond well to the Technical subjects offered at your school?

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3. How do you find the female learners coping with their studies in Technical Education?

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4. Should technical/technology education be included in the school curriculum for all learners?

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## Part 5

### Curriculum and PEDAGOGY

1. Do you have adequately trained and qualified teachers to teach technical subjects at your school? If not who teaches this learning area at present? \_\_\_\_\_

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2. As the principal of the school, are you familiar with the content area of the Technical subjects? \_\_\_\_\_

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3. Do you believe that the learners at your school should be involved in the learning area of technology? If yes, state why you think so. \_\_\_\_\_

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4. If there are learner's who should be engaged in Technology education, from what age should they receive it? \_\_\_\_\_

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5. If there are learners who should be given Technology education, how should they be selected? \_\_\_\_\_

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6. Would technical/technology education offered at your school increase learner motivation? If yes, explain how! \_\_\_\_\_

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7. For what reasons should technical/technology education be part of the school curriculum? Explain!\_\_\_\_\_

\_\_\_\_\_

8. What do you feel about having a curriculum that incorporates both academic as well as technical/technology for the learners. ?\_\_\_\_\_

\_\_\_\_\_

9. Is there any other comments/suggestions that you would like to add to this questionnaire?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I take this opportunity of thanking you for taking the time and effort in completing this questionnaire; your input will be of value to the research study as well as to the Status of Technical/Technology Education as a whole.

**MR BAI NDURE (Researcher)**

**TABLE 4.2(Appendix C ) PRINCIPALS BIOGRAPHICAL DETAILS**

<b>Principal</b>	<b>Gender</b>	<b>Age</b>	<b>Race</b>	<b>Qualification</b>	<b>Teaching Experience</b>	<b>Yrs as Principal</b>	<b>Location</b>	<b>Current Teaching Tech.Edu</b>	<b>Teaching Technical</b>	<b>Studied Technical</b>
1	M	52	African	B.Edu	27yrs	5yrs	Bakoteh	No	No	No
2	F	46	African	PTC,HTC, Cert.in Sch Mgt	29yrs	10yrs	Sukuta Kombo North	No	No	Yes
3	M	42	African	HTC,Dip.HR Cert.In .Mgt	19yrs	12yrs	Jamisa	No	No	Yes
4	M	37	African	PTC,PGD, B.Edu	14yrs	2yrs	Bakadagi	No	No	No
5	M	45	African	HTC,B.Edu	20yrs	2yrs	G.Banjul	No	Yes	Yes
6	F	Adult	African	PTC,HTC Adv.Dipl M.Edu	50yrs	20yrs	Bundung	No	No	No
7	M	36	African	HTC/HNC in Construction	12yrs	2yrs (VP)	Kerewan	Yes	Yes	Yes
8	M	45	African	PTC,HTC, Cert.in.Sch.Mgt	26yrs	15yrs	Brikama	No	No	Yes
9	M	36	African	PTC,HTC	16yrs	1yr	Nioro Jattaba	No	No	No
10	F	50	African	PTC,HTC	30yrs	10yrs	Farafeni	No	Yes	Yes

11	M	35	African	PTC,HTC	15yrs	3yrs	Jan.Jan.B	No	No	No
12	F	31yrs	African	B.Sc.Edu	7yrs	1yr	Rose.Kali Int.	No	No	No
13	-	50yrs	African	PTC,HTC	31yrs	10yrs	Kanifing	Yes	Yes	Yes
14	M	53	African	B.Edu	35yrs	8yrs	Latri.Sabi.	No	No	Yes
15	M	31	African	HTC	9yrs	1yr	Kaiaf	No	No	Yes
16	M	58	African	B.Edu.	30yrs	6yrs	Bakau	No	Yes	No
17	F	43	White	B.A,M.Edu	15yrs	9yrs	St.Peter's	No	No	Yes
18	M	46	African	HTC	22yrs	5yrs	Gunjur	No	Yes	Yes
19	M	54	African	PTC,HTC	34yrs	14yrs	Kabafita	Yes	No	Yes
20	F	48	White	M.Edu	31yrs	11yrs	Abuko	Yes	No	Yes
21	M	37	African	HTC,Dipl.In.Mgt B.Edu	8yrs	13yrs	Bansang	No	No	Yes
22	F	N/A	African	B.Edu	34yrs	8yrs	St.There's	Yes	No	No
23	M	40	African	HTC	15yrs	10yrs	B.Essau	Yes	Yes	Yes
24	M	49	African	B.Edu	14yrs	4yrs	Nyakoi	No	Yes	Yes
25	F	40	African	Cert.In Edu	20yrs	5yrs	Tallinding	Yes	No	Yes
26	M	31	African	N/A	N/A	N/A	Kunkujang	No	Yes	Yes
27	M	47	African	HTC	12yrs	6yrs	Old.Yd	Yes	Yes	Yes
28	M	40	African	HTC/B.Edu	11yrs	4yrs	Fatoto	Yes	No	Yes
29	M	44	African	N/A	7yrs	5yrs	Pakalindin	No	No	Yes





