



**MASTER OF SCIENCE IN TECHNICAL EDUCATION  
(ELECTRICAL AND ELECTRONIC ENGINEERING)**

**A Study to Suggest a Strategy for Retaining Teachers of Technical and  
Vocational Education in Katsina State, Nigeria**

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Thesis Submitted in Partial Fulfillment of the Requirements of the Degree of **Master of Science in Technical Education** with Specialization in **Electrical and Electronic Engineering**

DEPARTMENT OF TECHNICAL EDUCATION  
ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)  
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SEPTEMBER, 2014

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## **DEDICATION**

This thesis is dedicated to my parents. For their endless love, support, encouragement and never stop believing in me.

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## ABSTRACT

The purpose of this study was to identify the strategies for retaining Technical Teachers of Technical and Vocational Educational Institutions in Katsina State. The study examined among others: the causes of technical teachers leaving the teaching profession to other jobs and strategies to be adopted for retaining highly qualified, experienced technical teachers in the teaching profession. The study also examined the strategies to be adopted to retain technical teachers in Katsina State's Technical and Vocational Education Institutions. Three research questions were formulated to guide the study. A 41 items survey questionnaire was developed and used to elicit responses from technical education administrators, technical education principals/vice principals and technical teachers in technical and vocational education institutions who constituted sample.

The data was analyzed using weighted averages. The findings revealed that some of the causes of technical teachers leaving the teaching profession for other jobs as follow: (1) lack of appreciation by the Government for job well done. (2) Better condition of service in the private sectors and (3) Lack of equipment and working tools for projects in technical and vocational education institutions. The findings also revealed some of the strategies to be adopted to retain technical teachers in the teaching profession:

(1) Technical teachers should earn the same as their counterpart with the same qualifications in industry. (2) Provide technical teachers' allowance (3) Provide working tools (hands, measuring and marking out tools).

Based on the findings: the researcher recommended that: (1) Strategies for retaining technical teachers identified in this study should be incorporated into the retention of technical teachers exercise by the various technical education administrators of Katsina State (2) Katsina State Government should through its ministry and school boards set her machinery for implementing the findings of this study. (3) Both the state and local government of Katsina State should address with seriousness the problems of non-availability and/or the existence of ill-equipped workshops and lack of electricity supply to the Schools.

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the study

Technical and Vocational Education and Training (TVET) programs and institutions have played a consistent limited role in approaches to technological development and economic growth in Nigeria over the past 50 years. TVET is defined as “a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life” (UNESCO 2004: 7).

The emphasis on vocational and technical education in Nigeria's 6-3-3-4 education system is predicated on the belief that technology is vital to national development. Hence, Odejide (1992) described the new education system as a pragmatic policy that will ensure scientific and technological development in Nigeria, if it is well implemented.

However, Akangbou (1983) and Sesay (1989), observed that since the inception of the new policy, some major constraints to its effective implementation have been identified particularly, the dearth of qualified technical teachers. These authors further stressed that Nigeria is deficient in number and standard of vocational and technical teachers despite all efforts being made by the Federal Government to address the issue.

The Aina Committee (1986) report on technical teacher production also revealed that Nigeria has a deficit of 94.5 percent of technical teachers to successfully implement the 6-3-3-4 education system. Aina (1991) further observed that the shortage of qualified and trained technical teachers may have been multiplied by the increase in enrolment of technical college students and the subsequent introduction of technical subjects as core courses in secondary schools. He stressed that this shortage of qualified and well trained technical teachers led to the employment of non-professional pensioners in the teaching profession especially in

vocational and technical institutions. Olaitan (1986) observed that one of the factors that affected development of technical education is that some skillful vocational and technical teachers often move to the industries where their skill are more highly valued and paid for than in the teaching profession. Research works conducted by Madugu (1992) and Mani (1992) have shown that for various reasons technical teachers leave teaching for more lucrative appointments after a while. Bankwat (1988) and Uyanga (1988) separately revealed that about 65 percent of qualified technical teachers in Katsina State left the teaching profession to private organizations and industries for reasons of irregular promotion, non-payment of technical teacher allowance, overloaded time-table due to inadequacy of technical teachers, and inadequate resources to work with.

Uthman (1988) and Maaji (1990) revealed that the rate at which qualified and experienced technical teachers leave the teaching profession to other places in Katsina State is alarming. Mohammed and Ibrahim (1995) opined that about 75 percent of qualified, trained and experienced technical teachers in Katsina State left the teaching profession to Federal Ministry of works, industries, and private organizations and for more lucrative appointments. The authors, Uthman (1988), Maaji (1990) and Mohammed and Ibrahim (1995) separately called on the Katsina State government to arrest the situation immediately for the progress and development of technical education in the State. Iliya (1991) and Aghenta (1985) revealed that many available trained technical teachers abandon teaching jobs for more attractive opportunities in industries.

Iliya (1991) and Aghenta (1985) further observed that serious shortfall exist in the number of professionally qualified technical and vocational teachers needed in the nation's schools and colleges. Iliya (1991) and Aghenta (1985) called for immediate solution to the problem of short supply of teachers of technical and vocational education into the nation's schools. The authors also called for the retention of the qualified employed teachers of technical and vocational education in the teaching profession, especially in vocational - technical institutions before things get out of hand. The implication of the foregoing is that many

qualified, trained and experienced teachers of technical and vocational education are not in the schools.

### **1.2 Statement of the Problem**

The problem of retaining teachers, particularly vocational technical teachers in educational institutions is as far back as 1960s (Abbas, 1993). The Ashby commission report (1960) pointed out that the constant exodus of teachers from teaching to better paying jobs in other sectors of the economy is responsible for the shortfall of teachers in our institutions. Studies conducted by (Usman, 1992, Ajiji and Samuel, 1997, Abbas, 2001) have also pointed out that the constant exodus of technical teachers from teaching to better paying jobs in other sectors of the economy is responsible for the shortfall of technical teachers in our institutions particularly in the Northern part of Nigeria where the studies were conducted.

As a result of trained technical teachers abandoning the teaching profession for more attractive opportunities in industries, there is acute shortage of professionally trained technical teachers in the northern parts of Nigeria schools and colleges. The Federal Government in an effort to resolve this problem adopted a number of measures to increase the number of needed trained technical teachers. Some of these measures include establishment of special technical teacher training institutions and introduction of degree programmes in technical education in some institutions of higher learning in the country. These efforts notwithstanding, the drastic shortage of trained technical teachers in Katsina State seems to defy solution. Therefore, one of the most pressing problems associated with technical education in Katsina State at present is that of retaining competent trained technical teachers in the teaching services.

### **1.3 Objectives of the Study**

The purposes of the study were to identify strategies to be used for retaining qualified technical teachers in the teaching profession in Katsina State technical and vocational institutions. Specifically the study will identify:-

1. The causes for the exodus of technical teachers from teaching in technical and vocational institutions to other Jobs.
2. Strategies for retaining highly qualified technical teachers in the teaching profession.
3. Strategies for retaining experienced technical teachers in the teaching profession.

#### **1.4 Significance of the study**

This study will help the technical education administrators in Katsina State to know the causes for the exodus of technical teachers from teaching in vocational-technical institutions for other jobs and to devise some means of minimizing their exodus.

The principals of vocational-technical institutions and technical education administrators will also benefit immensely from the findings of this study. The findings will enable them to know the strategies to be adopted for retaining experienced and highly qualified technical teachers in the teaching profession.

The technical education administrators in the ministry of education and secondary school board of Katsina State will benefit from this study because it will enable them to reduce the exodus of technical teachers through the use of the strategies identified in this study for retaining technical teachers in technical and vocational institutions in Katsina State. This study will also provide information to policy makers in the Ministry of Education and secondary school board of Katsina State on the strategies for retaining technical teachers. Such information will enable the administrators to retain highly qualified and dedicated teachers in Katsina State technical and vocational education Institutions.

The study will be also significant to students of technical and vocational education, because if highly qualified and dedicated technical teachers are retained in the teaching profession through the result of this study, students will have qualified technical teachers to teach them effectively. As a result, the academic- performance of the students will be higher than before.

#### **1.5 Assumption of the Study**

In carrying out this study, the following assumptions were made:

1. That Administrators, Principals, Vice Principals and Teachers of technical and vocational education institutions in Katsina State would constitute a valid source of data needed in this study
2. That the respondents would give honest and unbiased response to the question

### **1.6 Delimitation of the Study**

This study was delimited to practicing technical teachers of all categories teaching in technical and vocational education institutions in Katsina State irrespective of their academic qualification, teaching experience and sex differences.

It was also delimited to all the administrators who are technical personnel in the Ministry of Education, secondary school board, and to principals and vice principals of technical and vocational education institutions in Katsina State.

### **1.7 Limitation of the Study**

The study would be constrained by the fact that most of the technical teachers in the technical and vocational education institutions in Katsina State run shift made classes and it would be more difficult for the researcher to reach some of the respondents within the schedule time.

### **1.8 Design of the Study**

The survey design will be used in carrying out this study. The survey design is considered the best design for this study because of the type of information needed for this investigation. Kerlinger (1979: 423) observed that survey research focuses on people, the vital facts of people and their believes, opinions, attitudes, motivation and behaviours. This study will seek the opinions of teachers, principals, vice principals and administrators of technical and vocational education institutions in Katsina State regarding the strategies of retaining technical teachers in technical and vocational education institutions.

### **1. 9 Definition of Terms**

**Technical and vocational education teacher:** Technical and vocational education teachers instruct students in various technical and vocational subjects, such as auto repair, healthcare,



and culinary arts. They teach academic and technical content to provide students with the skills and knowledge necessary to enter an occupation.

**Vocational Education:** vocational education is education that is based on occupation or employment, that prepares people for specific trades, crafts and careers at various levels from a trade, a craft, technician, or a professional position in engineering, or training designed to advance individuals' general proficiency, especially in relation to their present or future occupations.

**Qualified Technical Teachers:** Although technical and vocational education teachers typically need a bachelor's degree, some may enter the occupation with a high school diploma or an associate's degree. Career and technical education teachers also need work experience in the subject they teach. Some teachers, particularly those in public schools, may be required to have a state-issued certification or license.

## **CHAPTER II**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Statement of the Problem**

The problem under studies was to identify the factors affecting the retention of teachers in technical and vocational education (TVE) institutions in Katsina State, Nigeria. For the purpose of this research study, the review of related literature was organized under the following sub themes:

- (i) Theoretical basis/perspectives of technical and vocational education teachers' retention
- (ii) Shortage of technical and vocational teachers in the teaching profession
- (iii) Causes of technical and vocational education teachers leaving the teaching profession
- (iv) Strategies of retaining technical and vocational education teachers in the teaching profession
- (v) Related Empirical Studies
- (vi) Summary of Related Literature Review

#### **2.2 Theoretical Basis/Perspectives of Technical and Vocational Education Teachers' Retention**

Retention may be described as the ability of an organization to keep someone on the job, as long as he/she is still useful to the place. A most serious dilemma facing the Nigerian education system presently is that of keeping the school system staffed continuously with competent teachers and retaining those in service. A good number of research work conducted in the past years dealt with the relationship between job-satisfaction, exodus and other variables that might be considered potential strategies to retain teachers in the teaching profession.

The researcher therefore reviewed some theories that deal with retaining people at work especially technical teachers. Ruhland (2001) referred to the six functions of teacher retention in Chapman's (1984) model of the influences associated with teacher attrition when developing survey questions for identifying factors influencing turnover and retention of Minnesota's secondary career and technical teachers. Dainty and Belcher (2008); Su, Dainty, Sandford, Townsend, and Belcher (2011) and Dainty (2012) used Ruhland's (2001) research as a basis for the theoretical framework in determining factors influencing retention of career and technical education teachers in the state of Kansas. Ruhland's (2001) survey was expanded in the areas of educational preparation, teacher commitment and first year teaching experience. Su et al. (2011) developed a theoretical model of the influences associated with secondary career and technical education teacher retention. Holland (1973) theoretical framework stated that "vocational satisfaction, stability, interest and achievement depend on the congruence between one's personality and the environment in which one works". He went further to explain that people search for environments that will let them exercise their skills, abilities, express their attitudes, values, and take an agreeable problems and roles. Holland (1973) expressed further that people leave fields for which they lack interest and aptitudes and seek fields for which they possess interest and aptitudes.

Holland (1973) theoretical framework is very relevant to the present working condition of technical teachers in Nigeria, particularly in Katsina State vocational technical institutions. Many of Katsina State technical teachers are posted to institutions where the environment is poor. They found themselves in institutions where machines, working materials and instructional materials do not exist and the school administrators are not ready to buy them. In this case, there is just no way for such teachers to exercise their skills, abilities, experience and express their attitudes and values. Consequently, such teachers will lose interest in their job and search for another challenging jobs. Super and Hall, (1978) theory on vocational and career choice stressed on "vocational maturity". That is, individual's readiness to make career decisions is a contributing factor of career changing. When experienced people became more clear about their assets and liabilities as well as about the opportunities and limitations of

their job, this clarity may lead to job or career changes. On the basis of Super and Hall (1978) theory, one would expect that individuals leaving a profession would be characterized by individual readiness and a different set of competencies and values than those remaining in that profession. Maier and Verser (1982) theory identifies job autonomy, job challenge and financial compensation as important issues in career retention across many fields of work.

The above identified variables by Maier and Verser (1982) seem to serve as criteria that individuals may use to judge their career success. In any field of work where the achievement of autonomy, job challenge and financial compensation is limited or constrained as it is in the teaching profession especially with technical and vocational teachers, then individual technical and vocational teachers who value these criteria will be more likely to leave the field and seek success in other ventures. Gilbert (1978) theory on human competence observed a strong link between job-satisfaction, vocational interest and retention of teachers in the teaching profession. Many theorist (psychologists) who are interested in the job satisfaction, vocational interest and retention of teachers indicated that if individuals are working in areas that interest them, their job-satisfaction will be high, and 'if job satisfaction is higher, hardly do such workers leave their job to other jobs' (Holland, 1973, Super and Hall, 1978, and Maier and Verser, 1982).

Motivation should not be left out on the discussion of teachers' retention in the teaching profession. To address this, Sloane (1983) motivation theory stressed that a teacher's level of motivation is dependent on at least two sets of factors: (i) Those factors specific to the needs of that teacher and (ii) Those factors specific to the job of teaching. Therefore, any teacher deprived of factors specific to either of the above set, can be said to be factor deficient and it will be very difficult to retain such teachers in the teaching profession. Sloane (1983) emphasized that there is a great relationship between motivation, ages of teacher, length of teaching experience, academic qualification, job-satisfaction and retention of teachers in the teaching profession. This theory confirmed that motivation has direct influence on the

retention of teachers in the teaching profession. Thus tend to suggest that any strategies for retention of teachers to be applied should include motivation of teachers generally.

### **2.2.1 Theoretical Perspective**

As TVE teachers remain in the profession at a higher rate than the general teaching population a proper explanation of the interaction between internal and external causes for TVE teacher to make their decision about is necessary (Keigher & Cross, 2010). To explore such an explanation, I have used the attribution theory as a theoretical framework to examine how (Weiner, 1972). As Weiner (2006) stated, “In explaining everyday actions, people focus on reasons, which typically are associated with incentives (costs and benefits) and volitional issues” (p.17). Weiner further explains that causes, as applied to attribution theory, are outcomes, end results and consequences rather than actions. For example, one particular student may believe himself/herself to be a “lucky person” and for him/her luck is an internal characteristic (reason) that he/she believes (attribute) to cause good things to happen to him/her. According to Weiner, a person’s attributions for success or failure determine the amount of effort that will be expended on a particular activity in the future.

The attribution theory provides the framework for this study to explain what perceptions TVE teacher has of success or failure as a person and a teacher, how those beliefs came to be, how they interact and how those beliefs are explained by that TVE teacher. Those attributions can then be placed in context to explain why the TVE teacher chooses to remain in the profession. According to the attribution theory (Weiner, 2006), an individual is held more accountable for an intentional act rather than an unintentional act: A person who willfully points a gun at and harms another will be punished more severely than the person who inadvertently causes harm while holding the same firearm. The dispositions of these situations are seen as obvious. Weiner (2006) stated, “This theory best captures the ordinary person doing ordinary things. But it is beyond reason to expect the average person to explain something such as helping as a matter of the heart versus acting out as a deliberate matter of the mind” (p. 24). Attribution theory is designed to help explain the seemingly obvious.

The term “attribution theory” is a relatively new perspective in the social psychology arena that is closely tied to motivational research. It was first used by Heider (1958) to frame his work on interpersonal relationships. Heider sought to make sense of how individuals order and classify events around them and tried to show how, “we interpret events as being caused by particular parts of the relatively stable environment” (p. 297). He also refined his theoretical perspective to include classification of events as having a dispositional (internal) or situational (external) cause. Jones and Davis cited in Kelley (1967) molded attribution theory into a testable form. Their work looked into why people perceived their environment via personal experience and observations. Both Heider (1958) and Jones and Davis used attribution theory to explain causal *behaviors*. Kelley reported seven other areas, beyond the behavioral context, where attribution theory had also been applied. Those areas were: (1) Attributions about the self and the basis of need for information about the self. (2) The assignment of credit and blame. (3) The interplay of language and attribution. (4) Problems of establishing trust in interpersonal relationships. (5) The development of attribution processes. (6) Personality differences in the attribution processes. (7) The relation between the common man’s attribution processes and the more systematic processes incorporated in scientific methods. These seven areas would later serve as the foundation for Weiner’s application of attribution theory to educational contexts (Weiner, 1976). Weiner’s theory serves as the framework for this study.

The attribution theory began to influence the social sciences in the late 1950’s and into the sixties. This spreading of attribution theory into the research community can be seen in the work of Strickland (1958) who studied a group of 40 undergraduate students at the University of North Carolina. Strickland looked at inter-personal relationships and how persons developed attributions of trust with another individual. Seeman (1963) used attribution theory to explore dispositions of 120 reformatory inmates. Specifically, Seeman was interested in how social learning contexts interacted within prisoners as they came to believe and feel what they did about societal alienation while incarcerated. Rotter (1966; 1967) worked on expectancy and reinforcement, in a study of 547 psychology students,

examining the interactions of internal and external forces of individuals as it related to trust issues which eventually led to the construction of the interpersonal trust scale (used in later research). Attribution theory clearly had found a home in the social sciences.

### **2.2.2 Attribution Theory and Educational Research**

The attribution theory has long been tied to an educational context. Katz (1967) wrote regarding the attributions of children being influenced by adults and implied that using attribution theory in the classroom could be a viable approach but it was Weiner who was responsible for developing the theoretical framework as it is applied in education and social psychology today (Jones, Kannouse, Kelley, Nisbett, Valins, & Weiner, 1972; Weiner, 1974, 1986). Weiner's framework of attribution theory as applied to the educational context can be summarized as follows:

A. Each attribution is under laid by a three stage process: (1) Behavior must be observed and/or perceived (2) Behavior must be determined to be intentional (3) Behavior is then attributed to internal or external causes.

B. Attributions are classified along three causal dimensions: (1) Locus of control; internal or external, individuals tend to attribute successful outcomes to internal causes, i.e., "I won because I am smart." And failures to external causes, "I lost because my questions were harder." (2) Stability; will outcomes be reproduced if an activity is repeated (3) Controllability; a factor is said to be controllable if an individual believes it can be altered. A factor is considered uncontrollable if the individual believes it cannot be altered.

An attribution is developed as follows; an event is observed and determined to be intentional, not accidental, and then classified as being caused by an internal cause or an external cause. The attribution is then experienced and retained intact (stability) until it changes by some new circumstance or situation. Lack of teacher retention may seem like a problem with obvious causes. For example, if a teacher receives low pay, he/she will leave the profession if a more lucrative opportunity presents itself. Is that the case for TVE teachers? Is that the case

for all teachers? The answer seems obvious, but these questions have yet to be answered through the lens of attribution theory. The issue of teacher retention treated through attribution theory, maintains that teacher retention is an observable, intentional behavior subject to internal and external influences. This study identifies those attributions and subjects them to analysis based on locus of control, stability and controllability. An analysis of TVE teacher retention beliefs through attribution theory would center on the empirical evidence based on to the individual TVE teacher. Further, the discussion framed by attribution theory must explain the persistence of the attributions that govern the retention decision. In simple terms, attribution theory can be used to explain why, in the case of TVE teachers, the seemingly obvious, is true or not true.

### **2.3 Shortage of Technical and Vocational Education Teachers in Nigeria**

In a study commissioned by Federal Ministry of Education (Aina's report, 1986), the stock of technical and vocational teachers existing in Nigeria was taken. And a ten year projection of technical and vocational teachers needed was established (1985 - 1995). The study noticed that in five years of the 4th National Development Plan period (1980 - 1985), the addition that was made to the 1980 stock of 2,482 technical teachers was only 2,585. The sources of this contribution were the Universities, Polytechnics and Colleges of Education (Technical). The average increases produced from all these sources was only 517 technical and vocational teachers per year. This includes holders of graduate degree, Nigerian Certificate in Education (NCE), Higher National Diploma (HND), Ordinary National Diploma (OND), Advanced City and Guilds (C & G) Craft, ordinary (C & G) craft and their equivalent. Aina (1991) noted that as at time of this situation, the implementation of the 6-3-3-4 policy was just getting hold on the educational system. It was therefore, necessary to project the need for the full realization of the system far into the future (1985-1995) in order to obtain the shortfall that would form the target to which the government has to address itself. The projected need was based on the Curriculum time Index (CTI) model. It made allowances for 5 percent wastage rate per annum and also based on Teacher/students ratio of 1:20. Since the projection was made, some Colleges of Education (Technical) have been established.



Universities of Technology and new Polytechnics were also established. All these institutions have started technical teacher training programme at NCE and degree level respectively. There has been general increase in enrolment of technical teacher trainees, especially in Colleges of Education and Polytechnics. This is in addition to the technical teachers training programme which is producing technical and vocational education teachers in large number yearly.

Despite the huge money Government is spending on the training of technical and vocational education teachers in order to reduce their shortage, the demand for technical and vocational teachers in Nigeria, has not been met. Evidence from research has shown that the current practice for the development of technical and vocational education teachers in the country is still very far from adequate. According to Aina's report (1986), only 5,593 out of 102,083 technical teachers needed to teach in secondary schools were available to teach vocational and technical subjects in the secondary schools. Statistics of technical and vocational teachers for the secondary education level in Nigeria shows that 1993/94 Kaduna State had only 195 technical teachers and managed to increase to 320 in 1994/95. Kano State had 225 in 1993/94 but moved to 388 in 1994/95. Niger State had 190 in 1993/94 and 320 in 1994/95. Sokoto State moved from 270 in 1993/94 to 393 in 1994/95 while Katsina State had 90 in 1993/94 and 108 in 1994/95. These figures indicate that the demand for technical teachers in Nigeria is still very high.

In the projection of Nigeria's need of technical teachers by Aina (1991), it was projected that by 1992-93, the nation would need, 134,450 technical teachers. In 1993-94, the demand will go up to 136,476 technical teachers while in 1994-95, the figure would be 137,336. In fact, the shortage of technical teachers should not be a surprise to us, because according to Maiyaki (1987) technical teacher education in Nigeria is young when compared to other forms of teacher education. It is so, because educational planners did not accept or view technical education as an essential component of general education. Secondly, government specifically did not want its involvement in technical education and its corresponding

teachers' education at early stage of Nigeria education system. From this statement, there is clear evidence that it will not be possible as of now to get enough technical teachers, hence technical teacher education started too late. All the nation need now is to gear up the training of both quality and quantity of technical and vocational education teachers. The demand, if care is not taken will continue to be higher yearly because of the great awareness of Vocational/Technical education in Nigeria currently. At present, all the state governments have increased the number of Vocational/Technical Schools in their States; in addition to Introductory Technology in Junior Secondary Schools and Integrated Science. Some States have even made it compulsory for each senior Secondary School (SSS) Student to have at least one technical subject, in addition to technical drawing in their Senior Secondary School final year examination. All these added to the high demand of technical teachers.

Biose (1992) in his contribution on technical teachers' shortage stated that practicing technical teachers as well as technical students are not motivated in any way. It may be right to say that many of these teachers are no longer committed to their jobs according to Biose (1992), because of: (i) poor payment; (ii) delay in payment and; (iii) frustration arising from stagnation over a long period of time".

Other research evidence have shown that more technical teachers are needed in the teaching profession, if we have to meet the aims of technical education stated in National Policy of Education (FRN 1998) as follows:- (a) to provide trained manpower in applied science, technology and commerce, particularly at sub professional grades; (b) to provide technical knowledge and vocational skills necessary for agricultural, industrial, commerce and economical development; (c) to provide who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man; (d) to give an introduction to professional studies in engineering and other technologies; (e) to give training and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be interpreting and self-reliant, and (f) to

enable Nigeria's young men and women to have an intelligent understanding of the increasing complexity of technology.

Aina (1991) stressed that in an extensive study that he conducted under the sponsorship of World Bank in 1989/90. The shortage of technical and vocational education teachers in Nigeria's post primary schools was found to be 55 percent of total requirement. The most disturbing development, according to Aina (1991), was a recent revelation in which states especially in Northern Nigeria made a return to the National Council on Education. That several technical and vocational trained and qualified teachers remain unemployed due to lack of funds to pay their salaries. This, of course, discouraged many of the teachers from taking teaching as a profession from the beginning. Thus, they seek for jobs in other places where their services are needed. And this creates more shortage of technical and vocational education teachers in Nigeria's post primary schools. However, with the production of technical and vocational education teachers in and outside Nigeria for the country since 1966 to date, one would have thought that the increase should be higher than this. In some states, the number is decreasing very rapidly than expected. This equally, shows the shortage of technical and vocational education teachers in the teaching profession. It looks as if the more technical and vocational teachers are produced, the less are involved in the teaching profession. From the Digest of Statistics on Technical Education in Nigeria (1990), National board for Technical Education published in 2010. It showed that most states have students to technical teacher ratio of about 35: 1, with some states up to 40: 1 ratio. This indicates that most schools are operating above the recommended ratio of 20: 1 in Nigeria's post primary schools.

#### **2.4 Causes of Technical and Vocational Education Teachers Leaving the Teaching Profession**

Previous researchers examined the rate at which professional technical teachers leave the teaching profession has shown that about six out of every ten technical teachers eventually change to another career (Nnodi; 1976; Odu, 1990 and Onasanya, 1987). Condition of

service for teachers in general is far behind those of their counterparts in other professions. For that, technical teachers who have the opportunity by virtue of their qualification and influence to move to higher paying jobs never spare these chances. Sofolahan (1989) observed with dismay the acute shortage of qualified technical teachers in Nigeria. Sofolahan (1989) stressed that the few qualified ones in the schools have left for industries where their service will attract better remunerations. Dabban (1989) stated that many technical teachers in Nigeria, particularly Katsina State had changed their career because of poor condition of service, and poor attitude of government to technical teachers' education generally. However, less emphasis has been given to the differences in characteristic (e.g. skills, abilities, and values) between those who leave the teaching and those remaining in the field. Information of such differences can be of considerable importance in the career counseling of prospective technical teachers and in the design of teaching. It may also further the understanding of being a technical and vocational education teacher and may help to better comprehend the pressures of classroom teaching.

Schein (1978) identified career dynamics and theorized that career cycle is inherent in all organizations. Usually, according to Schein, workers are moving in form of promotions, transfer, retirement and resignation for other organizations. With Nigeria technical teachers, promotion is not an easy task. This is because most of the school administrators do not recognize technical teachers and so, do not recommend them for promotion. Chances of moving up to get appointment to positions of responsibilities as Vice-Principals and Principals are normally given to the traditional teachers. Since technical teachers are not recognized by their administrators, transfer to another place, turnover are always equally at high risk. With other careers, those who remain, do so because they receive a certain number of promotions. They can rise to reach high level of leadership, and continue to climb until they reach the retirement age. This hardly happens in teaching profession which is among major factors of teachers' exodus to other jobs.

Keiser (1981) opined that the social relationship with family have great impact on the career choice. Keiser (1981) observed that the man who live apart from their family, do so because their jobs calls for constant posting, forced dislocation of family. This type of development (live apart) of families causes career discomfort and may lead to career changing. Issues of posting or transfer of technical and vocational education teachers from urban areas to rural areas is common. As such, most of technical and vocational education teachers leave the family behind in urban areas. Cases of separations of families as a result of such transfers cause frequent family problems. Findings revealed that many teachers left their jobs to place where there would be no transfer, to avoid unnecessary family problems. This shows that family is also a major contributory factor to career choice. Hence, for many reasons, the family stands to benefit from the earning, prestige and status that goes with the career.

On vocational development and career choice, Okorie and Ezeji (1988) categorized the different period, stages and phases of the vocational development process as follows:-

(a) "Growth period (1-14 years) (b) Exploration stage (15-24 years) (c) Establishment stage (25 - 45 years) (d) Maintenance stage (46-65 years) and (e) Decline stage (66 years - Retirement to death)" The researcher is concerned with stage "C", because most of the technical teachers are within that stage (25 - 45 years). Stage "C" according to Okorie and Ezeji is establishment stage (25 - 45 years); the period of actual choice. The individuals really choose and start a career. If it is satisfying, he remains, otherwise he may change. The authors further observed that there is job mobility at this stage due to changing circumstances. The author's statement confirmed that the technical and vocational education teachers in the teaching profession who leave to other jobs do so frequently. They do so, because most of them are not satisfied with their jobs. And since there is job mobility at this age, they mostly change their jobs for satisfying career ambitions. Ozigi (1981) opined that career crises and turn-over of TVE teachers could be explained to be due to dissatisfaction with the teacher's condition of service. The author emphasized that government have to do everything possible to satisfy TVE teachers like their counterparts in other sectors. Thus, according to him it will be a lead way to retain them in the teaching profession.

Relative deprivation as a significant factor in the teaching profession cannot be contested. It was the force that led many qualified and experienced products in technical education out of the educational system to other jobs. Swanta (1986) supported this statement by saying, "one of the factors affecting teachers commitment to duty, was the differential treatment accorded university graduates with teaching qualification and their counterparts who possess in addition, the Nigerian Certificate in Education (N. C. E.) ". These deprivations according to Uyanga (1988) were in the areas of promotion and appointment to posts of responsibilities.

Uyanga (1988) further argued that graduate teachers with N.C.E. background were given posts of responsibility, higher salary (one step ahead of others) and faster promotion in Kaduna State. This negates the productivity of their counterparts who read for a bachelor's degree in education but without N.C.E. Their feelings of deprivation become justified since they too possess the pre-requisite qualification for teaching. They are also university graduates, and possibly have some length of service yet treated differently. Technical teachers are also not left behind with this type of treatment. One of the inherent constraints of technical education is the disproportionate remunerations in work organizations. Dating back to the colonial era, technical teachers had been relatively deprived in terms of salaries and other privileges compared to their civil service counterparts. On this, Lugard in Fajanu (1978) noted and said, "I should like to see these appointments more attractive in pay, prospects of promotion and privileges equal to the clerical branches". There were no incentives to the professional level. Provisions for staff training were shallow and inadequate. Many trainees ended up being ill-equipped for their jobs. This encouraged technical teachers' mass drift to clerical services and other professions.

A survey carried out by Uyanga (1988), of the career choice and interest among N.C.E. and B.Ed Technology students in the Department of Education (Technical), Kaduna Polytechnic revealed that very few students were sincerely interested in teaching after the completion of their courses. Majority of the students preferred to work in private organizations and industries. Those who wish to go for further studies preferred to go for their Master and Ph.D

degree programmes in "Educational Administration" or "Guidance and Counseling" or "Banking" and what have you. Indeed, they prefer to go in for any course as long as it is not technical. Reasons given for their decision include: (a) the comparatively low pay and other fringe benefit in teaching generally; (b) lack of substantial allowances or life insurance policies in teaching; (c) low prestige and status compared to their colleagues in non-teaching profession; (d) poor prospects of educational advancement; and (e) inadequate facilities and equipment in schools for job satisfaction.

The survey further revealed that even students who are on in-service training from the private sector preferred going back to join the administrative or production arms of their industries, than to teach in the industries training department. This in a nutshell, portrays the presence of relative deprivation within.

## **2.5 Related Empirical Studies on Technical and Vocational Education Teacher**

### **Retention**

The literature is clear that teacher retention is a major issue facing education (Certo & Fox, 2002; Cochran-Smith, 2004; Dill & Stafford, 2008). Concerns about retention can be seen from the earliest days of teacher education through the induction years and continuing later into the teaching career (Charters, 1970; Conway, Hansen, Schulz, Stimson, & Wozniak-Reese, 2004; Mark & Anderson, 1978; National Commission on Teaching and America's Future, 2002; Smith & Handler, 1979). Teacher retention is a clearly a problem that permeates all phases of the teaching career but is most important in the first five years of service.

There is a wide range of issues contained within the research into teacher retention included under headings such as teacher characteristics, teacher autonomy, organizational control, empowerment, and job satisfaction (LeFevre, 1967; Leiter, 1981; Martinez Garcia, 2007; Petty, 2007; Ponce, 1994). The interactions and relationships between these factors are not discrete but quite often are blurred by the perspective of any single research project. The

effort made here justified the need for this project by drawing links between the existing research, existing practice and the gaps that exist in that work (Kennedy, 1997).

TVE teacher retention literature is scarce, of the 76 studies concerning teacher retention that were published within the last 10 years, only four were specific to TVE teachers. Thus, this review was expanded to the more generic “teacher retention” and “teacher attrition” terminology. The literature discussed here was always considered as it would apply to TVE teachers. Additional terms utilized for exploration were: quality, autonomy, efficacy, evaluation, teacher quality, teacher education, music teacher education, student attitudes, high school students, quality of students, teacher characteristics, teacher traits, teacher personality and an assortment of related terms inspired by individual articles.

This review was framed by attribution theory and as such looked at the literature from the two perspectives defined as *locus of control*; (1) Literature that deals with internal motivators, (2) Literature that deals with external motivators. Retention literature does not often neatly fall into either category. This review included many instances of overlap, combinations of internal and external factors in a single article and suffered from some inconsistent application of terms. Inconsistencies were also found in the classification of factors in regards to locus of control. For example, Anderson (1987) discussed autonomy singularly but defined it as an external factor under the heading “job condition” while Roth, Assor, Kanat-Maymon and Kaplan (2007) focused on autonomy as an internal factor related to teacher quality.

## **2.5.1 Internal Motivators**

### **2.5.1.1 Autonomy**

Autonomy refers to the philosophy of personal independence. It is a largely researched topic in regards to education. Teachers consider autonomy more important than pay, assignment and administration (Firestone & Pennell, 1993; Petty, 2007; Viadero, 2008). Autonomy is discussed in the literature from two general perspectives. First is a line of thought outlined by Greene in Darling-Hammond (1996), who stated, “If we are to create a public space for



democracy, schools must consciously create community from the sharing of multiple perspectives and develop ‘the kinds of conditions in which people can be themselves’” (p. 6). Similarly, Eisner (1998; 2002), and Pinar, Reynolds, Slattery and Taubman (2005) speak of autonomy as an inherent and necessary component of the teacher. Autonomy is inseparable from the transference of knowledge and the creation of a situation conducive to learning from this perspective. This research also suggests that teachers need to have a sense of autonomy if they are to create an environment for their students to develop the same sense. This is further confirmed by Roth, et al. (2007) as a result of a survey of 132 female teachers from seven Jewish urban elementary schools and 1255 of their students. The second train of thought concerning autonomy speaks to a teachers’ need to have control over their work space (Anderson, 1987). Roisum-Foley (2004) surveyed 103 TVE teachers in Minnesota and Wisconsin. These survey subjects were characterized as superior educators who had a highly developed sense of control and autonomy in their classrooms and in their careers. It was found that there was a strong correlation between retention, quality and autonomy.

A survey of 8,488 Catholic school teachers by Lee, Dedrick and Smith (1991) found that reasonable teacher autonomy was a more important factor in teacher retention than pay and reduced class size. Perie and Baker (1997), in a study conducted for the National Center for Education Statistics, reported that teachers with greater autonomy are more satisfied in their jobs. This study was based on an analysis of data contained in the 1993-1994 NCES Schools and Staffing survey. The importance of job satisfaction is again confirmed by Curtis (2005), whose surveys of 633 high school and middle school teachers found that job satisfaction was the most significant factor in teacher retention.

Pearson and Moomaw (2005) chose to examine the relationship between teacher autonomy, on-the-job stress, empowerment and professionalism of 171 K-12 public school teachers in Florida. Their findings were that teachers needed to have a sense of control over their work space if they were to stay in the profession. Montgomery and Rupp (2005) found stress affects teacher retention decisions in a meta-analysis of 65 independent studies with a cross

study of 2527. In addition, Coughlan (1970) linked stress and morale as factors of retention in a study of 258 teachers situated in middle sized urban school districts. This is an example of the blurring that occurs in much of the retention literature. Stress and morale can be thought of as internal motivators but they are inextricably linked to job conditions, an external motivator.

There is a thread of retention literature concerned with interactions between teacher training, cultural pressures and the strength of a teachers need for autonomy that has a global presence, particularly in the United Kingdom. Two studies in particular typify the research concerning retention and autonomy set in non-United States teaching communities. Hobson, Malderz, Tracey, Homer, Mitchell, Biddulph . . . Tomlinson (2000) surveyed 2446 teachers at the end of their first year of service in England and found that those teachers considered autonomy an important factor that made their first year of teaching more successful and influenced their decision to remain in teaching. It was significant that this study found 95% of these teachers planned to remain in teaching the next academic year and 91% planned to be teaching for the next four years.

Sloboda (2001) implies that a study of 750 United Kingdom TVE teachers, done by York in 2001 produced a finding that those TVE teachers preferred to work in an environment where their practice was considered “introverted.” That is to say, these teachers believed it was important they be allowed to teach without influence or control from outside of their classroom. These findings indicate that teacher attitudes and dispositions concerning autonomy can be a cause for teachers’ retention decision and TVE teachers in England highly value their autonomy. However, the study exploring US music teachers about their attitude towards autonomy and its influence on their decision making in relation to retention possibility is rare.

### **2.5.1.2 Efficacy**

Teacher efficacy concerns how teachers perceive their ability to successfully do their job. Tschannen-Moran, Woolfolk-Hoy and Hoy (1998), in an examination of efficacy theory and measurement methodologies, found new teachers with a high sense of self efficacy looked at teaching in a positive manner, experienced less stress and were more inclined to remain in the profession. “Teacher efficacy has proved to be powerfully related to many meaningful educational outcomes such as teachers’ persistence, enthusiasm, commitment and instructional behavior, as well as student outcomes such as achievement, motivation, and self-efficacy beliefs” (Tschannen-Moran & Woolfolk-Hoy, 2001, p.783). These findings are confirmed in Billingsley (1993), who reviewed thirteen research studies concerning retention among special education teachers conducted between 1980 to 1992, Williams (2001), who conducted a qualitative study of 12 teachers with more than 15 years of service and Weaver-Shearn (2007), who studied efficacy attributions of 252 first year teachers who were employed by the same school district.

These studies suggest that efficacy is important in teachers’ retention decision making.

### **2.5.1.3 Teacher Characteristics**

Teacher characteristics include those traits inherent in the personality of teachers that manifest in observable behaviors. For example, a teacher may demonstrate a positive work ethic by remaining at school on a consistent basis or a teacher may volunteer to coach a school sports team, demonstrating their commitment to their school community.

The research concerning teacher characteristics offers a broad range of descriptive but suffers from a lack of consistent application of terms as well as a universal definition of those terms. This inconsistent and imprecise application of terminology in the area of teacher character research is illustrated in the work of Rosenholtz and Simpson (1990) as compared to Pembroke and Craig (2002).

Rosenholtz and Simpson (1990) surveyed 1,218 teachers from 78 elementary schools in Tennessee and found that personality traits such as resiliency, hopefulness, vitality and spirituality are possible links to an individual's ability to sustain a career. Similarly, the Task

Force on TVE in the Nineties (1987) developed a list of characteristics thought necessary to ensure success and retention of TVE teachers. This task force placed characteristics into four categories: (1) personal, (2) intellectual, (3) trade area of specialty and 4) instructional.

Teacher character research is dominated by articles producing laundry lists of desired characteristics. The literature is dominated by studies concluding good teachers are more likely to do a good job teaching for a longer period of time. The missing component is a consistent and concise definition of the “good” teacher. However, very few studies examine how these characteristics are related to teachers’ retention decision making; they are not clearly explained through a theoretical lens, especially in regards to music teachers.

#### **2.5.1.4 Job Satisfaction**

Job satisfaction, an internal attribution, is important because it interacts with many external factors: some within the immediate control of the teacher and many that are out of their control (Mau, Ellsworth, & Hawley, 2008). This context illustrates the complex nature of attribution assignment, formation, definition and interaction. There is also a problem with how job satisfaction is described and defined in the literature. This study chose to define job satisfaction as those attributions held by an individual that are related to internal and external factors and their interactions in relationship to the global construct labeled working conditions. The feelings of satisfaction which are associated with the job context are influenced by internal attributions, such as efficacy and autonomy and by external factors such as pay, support and environment (Loeb & Darling-Hammond, 2005; Mohapatra, 2005). This is an example of multiple factors with multiple loci of control interacting to form an attribution set that resides internally but is strongly influenced by the external.

Miller (2002) surveyed 675 K-12 Midwestern school teachers and found a strong correlation between teacher pay and job satisfaction. Weiqi (2007) discovered when studying over two hundred teachers in Guangzhou, China, that job satisfaction was closely tied to teacher retention decisions. Job satisfaction in Guangzhou is influenced not only by pay but other

factors as well, including satisfaction with the education system, leadership and administration, work environment, peer support and social status.

Siebert (2008) conducted a qualitative study of a fifteen member focus group that was empanelled with teachers having between five and twenty three years of service. Various combinations of panel members were devised to achieve homogeneity of experience and current teaching circumstance. Findings indicated the two primary reasons for teacher retention were job satisfaction and positive sense of self-determination (autonomy). Seibert does not explain how the panel members came to believe what they believed. This literature shows a strong tie between teacher job satisfaction and retention decisions. Job satisfaction is linked to such external factors as pay and administrative support. This relationship illustrates how external factors interact with internal factors to form an attribution stance. The limitation of this literature is that it considers all teachers and is not focused on one single discipline. This study looks at the job satisfaction contexts that are specific to music teachers. This will add to the current body of knowledge concerning job satisfaction from a more focused perspective than currently exists.

## **2.5.2 External Motivators**

### **2.5.2.1 Teacher Pay**

Teacher pay is a well-documented issue in regards to teacher retention. Teacher pay is repeatedly cited as a factor influencing teacher retention (Bond, 2001; Rumberger, 1987). The research indicates that the more teachers are paid, the more likely they are to remain in the profession, although the source of that research is often a teacher advocate group or labor union (Antonucci, 2008; Beck-Frazier, 2005; Gould, Abraham, Bailey, Caravatti, Cecconi, Cochran, Drown, Jenkins, Mingarelli, Morson, & Muir, 2007; National Education Association, 2008). Caution must be exercised when exploring literature concerning education spending. It is a highly polarizing issue fraught with political undertones which can be present in scholarly works of questionable nature. For example, Antonucci (2008), working as an agent of a private think tank, used publicly available statistics from federal,

state and local governmental bodies to study teacher salary. The data in this study were framed as a comparison of teacher salaries to salaries of the entire work force. Antonucci found that teacher salaries ranged most often in the upper third of all salaries of all workers and questioned whether teacher compensation was a justifiable reason for job dissatisfaction.

Closer examination of the tabulated data revealed that statistics were carefully selected to create a scenario that served to support the researchers' hypothesis that higher teacher pay improved both teacher quality and teacher retention rates. This suggested that Antonucci's arguments concerning teacher retention and salary are compromised by either inadequate research methods or by an agenda framed under some political stance. Examples such as this make it difficult to give a large portion of the literature concerning teacher pay much credibility. It is imperative for researchers to carefully sift through the clutter and discover true research vs. political advocacy; money is difficult to talk about. There is research concerning teacher pay and retention that falls more within the parameters associated with standard scientific methodologies. For example, Snow (2005) found in a study of 279 high school teachers in the Pomona Unified School district that teacher pay was a significant external motivator for the retention decision. Snow subjected data collected from a six year period to different statistical analyses including ANOVA, t-test, cross tabulation and correlation. Findings reported the strength of relationship of salary and retention compared across various contexts including: salary to length of service by all subjects, salary to length of service by gender, subject, and ethnicity. The relationship between salary and retention remained strong regardless of the various statistical contexts used to examine the data.

This follows Murnane, Singer, Willet, Kemple and Olsen (1991) who stated, "Teachers who were paid more were more likely to stay longer in teaching" (p. 7). Their quantitative research was based on statistical analysis of data provided by a survey conducted by the National center for Educational Statistics. These findings are duplicated in Ponce (1994) who surveyed 54 music teachers in the state of Ohio and Papin (2005) who surveyed 385 inner-cities teachers in Phoenix. Hess (2006) extended the salary/retention research as well with a

study that examined the effects of differentiated salaries in hard to staff urban schools on teacher retention. The study was conducted as a case study of one particular school, Rolling Hills Middle School in Kentucky. Hess interviewed current teachers and former teachers who had left the school within the past year. Rolling Hills Middle School was a participant in the Kentucky Department of Education's Differentiated Compensation Research Project which ran from 2003-2005. Hess found that there wasn't enough money available to ease the teacher attrition problem in the hard-to-staff schools. In this circumstance, money truly matters.

Bond (2001) examined the links between salary, student achievement and retention in Connecticut, finding higher pay in schools that had higher achievement levels. This multi-faceted study incorporated not only intra-state data captured from state records but also used data collected in the National Assessment of Education Progress tests conducted in various states in the 1990's. Bond found that higher teacher pay may aide retention in certain schools, but, just as Hess found, there is more to solving the retention problem than money. In contrast to most available research, Viadero (2008) reported the opinions of Johnson, Berg and Donaldson (2005) and Hanushek and Rivkin (2007), all noted education researchers, that their various research projects found pay was a non-issue. Johnson, Berg and Donaldson (2005) reviewed qualitative and quantitative studies that dealt with teacher retention finding that research on teacher pay was not sufficient to draw meaningful conclusions as to the relationship between teacher retention and pay levels. Hanushek and Rivkin (2007) reported teacher attributions of pay in regards to retention with an analysis of data from Texas public schools. They found pay was not a significant factor in teacher retention decisions.

#### **2.5.2.2 Mentoring**

Mentoring is a practice in which the mentor knows what a novice is expected to learn and how they learn (Wang, Odell, & Schwille, 2008). Key features of quality mentoring are support, guidance and orientation for the new teacher (Odell & Huling, 2000; Smith & Ingersoll, 2004). The importance of mentoring for retention is well documented in the

literature (Gordon & Maxey, 2000; Griffin, 1985; Hawk, 1987). Odell and Ferraro (1992), in a study of 160 early career teachers, found that mentoring may increase the retention rate. The importance of emotional support was found to be the single most important factor for the protégés. Smith and Ingersoll (2004), in an analysis of data from the 1999-2000 Schools and Staffing Survey conducted by the National center for Educational Statistics, confirmed the importance of mentoring as a component of the induction year experience. Their findings also concluded that the proliferation of mentoring programs that occurred in the 1990's helped the teacher retention rate, but a wide variation in the type and style of mentoring programs existed and those differences impacted the effectiveness of mentoring as a whole. This was also confirmed by Strong (2005), who found mentoring was correlated with the retention of new teachers. Current literature seeks to further refine the practice of mentoring; examining the construct with the idea to ensure a codified paradigm exists for high quality mentoring (Odell & Huling, 2000). The importance of this paradigm is confirmed by Strickland-Brunson (2004), who sought to discover the relationship between mentoring programs and induction year teacher retention decisions. This study of 260 mentors and 260 protégés was conducted during the 2002-2003 school year in North Carolina. The data were collected via self-reporting surveys constructed under the framework of a mixed method approach. Quantitative data were subjected to various statistical analyses; the results of this analysis were used to answer the first two sections of the study. Qualitative data were collected and analyzed for the purpose of validating the results of the quantitative data analyses. In the end, Strickland-Brunson found that quality mentoring was very important to new teachers and greatly influenced their positive attributions concerning retention.

Retention literature does have some areas of dissonance, caused by inconsistent application of terminology, where similar research projects produce seemingly opposing findings. This can be illustrated by the work of McIlhagga (2006) as compared to Conway and Zerman (2004). McIlhagga (2006) conducted a survey that was designed to answer two questions: (1) which mentoring skills and abilities most influence a novice TVE teacher's rating of mentor effectiveness, and (2) which measures of time most influence a novice TVE teacher's



predicted future in TVE. Data were collected using an internet survey of TVE institutions, and TVE directors in the state of Michigan. Analysis of data concerning the first question indicated that the areas of classroom management, problem solving skills, and communication skills were most significant in determining a novice teacher's rating of mentor effectiveness. Content knowledge was not a large part of discourse between mentor and novice. Further, both mentor and novice found that the quality of discussion was much more important than quantity. Results in regards to the second research question indicated that none of the time factors addressed by the survey affected the novice teacher's retention attributions.

Similarly, Conway and Zerman (2004) found, in a case study, that the subject, Tavia, found trade content knowledge was equally as important an area of discussion as moral (emotional) support. Tavia used vocabulary that is somewhat confusing at first glance. Tavia stated her successful relationship with her mentor was attributed to, “personality, ability to provide moral support and content-related concerns.” (Conway & Zerman, 2004, p.77) A closer examination of the data reveals that her definition of “content-related concerns” clearly includes elements of classroom management, instructional implementation and day to day issues of survival. Mentoring was important to Tavia in regards her retention decision. The findings of these reviewed studies agree; mentoring is important to teachers. Clearly, the mentor experience effects new teacher retention attributions. But the inconsistent application of terminology creates a potential for differences in interpretation of findings. Examiners of mentor research must, therefore, be vigilant when accessing these studies and go beyond a cursory examination to confirm that cross study comparisons take into account this phenomenon. A further limitation of this literature is that it does not examine the mentoring context of the music teacher.

### **2.5.2.3 School Culture**

School culture and in particular, the principal, play a role in the formation of retention attributions of teachers. Principals must be good role models supporting best practice

(Colley, 2002) and be sympathetic to the needs of their teachers (Weller, 1982). When principals step outside of the manager role, teachers react with skepticism and distrust and may leave the profession (Johnson, 2007; Kardos, Johnson, Peske, Kauffman, & Liu, 2001; McDermott, 2007). Carlson (2004) surveyed 214 high school teachers in ten large Wisconsin high schools and found the principal was considered the most important factor in the development of a school culture that fostered a set of working conditions that influenced teacher retention decisions. Richmond (2006) found that the role of the principal had little to do with the retention attributions of teachers, but the teachers of the study held the view that the principal should have good organizational skills and be the primary source of support for the school. Included in those conditions was a climate that fostered positive student achievement. Further, it was found that in schools where the principal was seen as not fostering that culture, teacher retention suffered. The findings of Richmond (2006), who studied the role of the principal in highly-impacted schools, are in conflict with Carlson, but the context of the studies was significantly different. Carlson's data were drawn from a group of high schools based on the size student population.

Richmond (2006) drew subjects from schools based on sociological criteria. That is, the study was conducted in highly-impacted schools, labeled as such based on the following criteria: (i) high student mobility rates within each school, (ii) the number and percentage of students at each school who apply for free school lunch, (iii) the number and percentage of ethnic minority students at each school, (iv) the number and percentage of limited English proficiency students at each school, (v) the number and percentage of students at each school from a single parent family. The idea of what a positive school culture is and how it effects retention attributions is examined from different angles in the literature. For example, Gossom (2004) studied retention attributions of 120 Chicago teachers from a framework based in needs satisfaction; she found retention decisions were based on the compatibility or incompatibility of school culture and needs satisfaction. Gossom found that 85.1% of teachers surveyed would become teachers again if they had the choice to return to college and 71.6% of teachers surveyed planned to remain teachers until retirement. And, Mohapatra

(2005), who studied 306 Florida school teachers and administrators, divided school culture into six discrete factors; school facility, resources, professional development, collegial environment, new teacher support and teacher empowerment. These factors were found to interplay in such a manner as to strongly influence teachers' attributions concerning retention.

The literature on the influence of school culture on teachers' retention decision making in relation to retention showed that a schools context has a bearing on teacher retention attributions concerning school culture and, in particular, the role of the principal in that culture. In addition, the compatibility or not between school support and teacher satisfaction with their job played an important role in shaping teachers' retention decision-making. However, few studies focused on music teachers' decision making in this body of literature as I pointed out earlier, teachers in different fields may approach job satisfaction differently.

#### **2.5.2.4 Teaching Assignment**

Teaching assignment is classified as an element of an organizational structure (Ingersoll, 2001) or as a characteristic of a particular teacher (Jacob, 2007). The literature considered for this study was centered on the teacher. New teachers are often assigned to disadvantaged urban schools plagued with discipline problems, poverty, violence and inadequate facilities (Buckley, Schneider, & Shang, 2004). These challenges induce stress in not only new teachers, but experienced teachers as well and factor in to a teacher's retention decision (Patterson, 2005). Increased stress caused by teaching assignment is an external factor that influences teacher attributions of job satisfaction.

Low job satisfaction contributes to teacher attrition (Ingersoll, 2002a). Two other factors related to teaching assignment affect teacher retention; one is teaching outside of the certified area and the other is the presence of highly structured curriculum in a particular school. Teachers teaching out of their certified area are becoming a common practice, especially in science; a phenomenon usually attributed by school districts to a teacher shortage (Darling-

Hammond & Youngs, 2002). Pearson and Moomaw's (2005) survey of 300 Florida teachers was focused on the effect of curriculum autonomy as it related to on the job stress. They found that as curriculum autonomy increased, on the job stress decreased, which manifested itself as attributions of greater job satisfaction. Pierson and Moomaw found that, in addition to the curriculum autonomy-stress relationship, teachers experienced greater levels of stress when assigned to teach outside of their area of specialty. This increase in stress increased the sense of job dissatisfaction. It can be concluded that the literature suggests that teaching assignment is a factor that often influences teacher retention attributions.

This literature shows that teaching assignment is a factor that contributes to teacher attributions of job satisfactions. As I reported earlier, job satisfaction strongly influences teacher retention decisions. The interaction of teaching assignment with job satisfaction is another example of an internal/external factor interaction that contributes to the teacher retention decision making process. There were no studies found that examined music teaching assignment and the effects on music teacher retention.

#### **2.5.2.5 Evaluation/Feedback**

Evaluation is important to teachers when it is purposeful and relevant. Too often evaluation is "utterly unimportant. In many school districts it is a perfunctory bureaucratic requirement that yields little help for teachers and little information on which a school district can base decisions" (Darling-Hammond, 1986, p. 530). Williams (2003) stated, "Test scores and accolades from parents and administrators can't provide the kind of feedback that good teachers need and want; instead, they look to students" (p.73) Feedback is necessary, is desired, but must be credible and considered useful (Earley, Northcraft, Lee, & Lituchy, 1990). Higher quality evaluation should lead to higher quality teaching which in turn has been shown to lead to greater retention. Music teachers report a lack of administrators who have adequate knowledge of the TVE teaching context and understanding of the importance of TVE programs (Scheib, 2004). Evaluation is traditionally thought of as the responsibility of the school principal or their administration.

Goldstein (2003) found in a case study in the Rosemont, California school district, that when subjected to a Peer Assisted Review procedure, teachers preferred to be evaluated in the traditional manner (by administration). Principals and administrators in Rosemont liked the program; a fact attributed to lightened work load. Goldstein ultimately concluded that the PAR program in Rosemont was not successful due to the ambiguous design and inconsistent implication of procedures. A similar model of group assessment was found to be beneficial for 205 school personnel in a large southeastern school district (Davis, Pool, & Mits-Cash, 2000). These teachers were interviewed on their participation in a program known as PACES (Professional Assessment and Comprehensive Evaluation). It was found that the PACES program suffered a similar fate as the PAR program in that participants felt the program was fraught with inconsistent implementation due to lack of procedural clarity. Teachers evaluating teacher's remains a controversial issue that must be discussed in ethical contexts (Peterson, Kelly, & Caskey, 2002). Evaluation systems contribute to overall school climate which influences teacher job satisfaction. Increased job satisfaction produces higher retention rates. These studies strongly suggest the process of evaluation affects teacher retention.

## **2.6 Related Empirical Studies**

Technical administrators, principals and vice principals of Katsina State are very much concerned on the rate technical teachers are leaving the teaching profession to other jobs. A number of studies have been conducted to identify causes of exodus of technical teachers from vocational-technical institutions to other jobs and to find lasting solution to it. The studies include that of Mohammed and Ibrahim (1995) in their study, investigated factors that influenced experienced technical teachers to leave teaching to other professions in Niger State. Specifically, the study focused in individuals with 5 to 20 years of teaching experience (ages 25 to 40). The former teachers that constituted the sample were interviewed. The results showed that 70 percent of the sample left teaching primarily because of inadequate salaries and the lack of financial incentives. Other primary reasons reported for leaving teaching included lack of teaching materials, lack of equipment in the institutions, the need

for a break, desire for more control over work conditions and a strong dissatisfaction with the entire reward structure for experienced technical teachers. Individuals became fully aware that their needs had shifted and it was now time for them to expand their lives. Female technical teachers reported concern with their needs for personal growth, their desires to be truer to their identities and their need to reduce stress in the work place. They cited the problem of insufficient gratitude for their efforts. Their male counterparts expressed the need to work in an environment where their competence would be recognized and rewarded. They were critical of systems that make no distinctions between competent and incompetent technical teachers. It was found that incentives for technical teachers to remain in teaching are shrinking at the same time that personal needs are calling out for more growth.

In his study, Bankwat (1988) on problems of staffing Government Technical Schools in Kaduna State 1983 - 1987 discovered that out of the 104 technical teachers including principals and vice principals available in the technical institutions in Kaduna State, only 40 or 41.6 percent were academically and professionally qualified for their job (teaching). The remaining 643 or 66.6 percent were either not qualified academically or professionally. In many cases Bankwat asserted the teachers were not qualified either academically or professional). Abbas (1993) conducted a study on mechanism in Retaining Technical Teachers in Vocational and Technical Institutions of Bauchi State, identified strategies for reducing exodus of technical teachers from vocational and technical institutions in the questionnaires of this study. The population of the study included 328 technical teachers and technical administrators in Bauchi State vocational and technical institutions.

Some of the findings of the study on the causes of exodus of technical teachers included: (1) technical teachers and teachers in general are not well remunerated compared with their counterparts in private sectors. (2) There is lack of job satisfaction in the teaching profession generally. (3) There is lack of equipment, materials and tools in technical and vocational education institutions and (4) there is better condition of service and staff welfare in the private sectors.

Some of the findings of the study on strategies considered necessary to retain technical teachers in the teaching field included provision of: (1) Good medical facilities for technical teachers (2) Good fringe benefits for technical teachers (3) Basic social amenities, like electricity, housing, portable water, good accessible roads and adequate transportation and (4) They also agreed and supported the idea of providing adequate enlightenment campaign to improve the -negative attitude of citizenry with regards to technical and vocational education.

Mani (1992) in his own study of training and retention of post-primary school teachers in Katsina State administered 545 questionnaires to teachers and principals of selected post-primary schools in Katsina State. The questionnaire had 24 items to elicit their views on the issues that they felt are causing the problem under investigation and soliciting their recommendations for training and retention for improvement. (1) The data analysis revealed that the respondents agreed that prompt payment of entitlement to teachers could make them want to remain in the teaching service. (2) The subjects have also agreed with the assertion that teachers leave because they keep on comparing conditions of teaching service with conditions in other services especially legal and medical professions. (3) It revealed that exodus of teachers has relationship with their academic qualifications. This is why some subjects suffer more than others. (4) It was also established that availability of teaching vacancies has relationship with the choice of teaching as a career.

As a result of the findings and conclusions of this study, the following recommendations are made. (1) In order to make teachers settle to their jobs, their salaries, allowances, promotions and all other benefits should be given to them, when due and on time. (2) The mode of paying leave grants should be changed. Instead, all teachers in the State should be paid their leave grants along with their salaries. (3) All acting appointments should be paid to deserving teachers as this will encourage them to put in their best. (4) At the management level, post graduate degrees and specialized courses should be encouraged. Financial and training facilities should be made available to the would-be managers.

In another study by Nnodi (1976) on problems of retaining trade and vocational teachers in the services of Anambra and Imo States in this study, 178 questionnaires were administered to trade and vocational teachers of selected schools in Anambra and Imo States. The respondents were asked to identify some of their grievances of leaving teaching profession to other jobs. Out of 178 questionnaires returned, 147 stressed poor condition of service and the fact that society still look down on teachers and the teaching profession as part of their grievances of leaving teaching profession to other jobs. Other predominant answers included: (1) under payment compared with the private sector. (2) No promotion prospects (3) Poor condition of service (4) Teachers are not respected and recognized by our society. (5) Lack of encouragement by government.

In another related study, Odu (1990) investigated the problems in retaining trade and vocational teachers in Bendel State. The author identified 48 mechanisms in retaining trade and vocational teachers in the teaching profession in Bendel State in the questionnaire of this study. The population of the study included 256 trade and vocational teachers and principals of selected institutions. Some of the conclusions and recommendations of the study included: (1) technical teacher education programmes should be extended to include a fifth year of study in order to prepare the kind and quality of teachers needed to deliver comprehensive educational services to students who will live and work in the 21st Century. (2) Put technical teachers on the same footing with the Civil Service. (3) Make the teaching profession more attractive than Civil Service. (4) Improve condition of opportunities available. (5) Raise trade and vocational teachers' salary and back date it. (6) Improve condition of service. (7) Make promotion opportunities available. (8) The fundamental technical teacher preparation programme should include the integration of theories, skills, and practice and preparation experiences necessary in all education courses. Continuous progress evaluations should be used to make teachers retention decisions. It was found that in order to maintain an acceptable technical teachers in the teaching professions there must be a continuous process



of evaluation of the graduates, modification of existing programmes, provision of necessary incentives, provision of teaching and learning materials and long-range planning.

## **2.7 Summary of Literature Review**

The review specifically focused on theoretical basis for technical teachers' retention in the teaching profession, shortage of technical and vocational teachers in the teaching profession, causes of technical teachers leaving the teaching profession and related empirical studies. It was identified that there is mass exodus of teachers of technical and vocational education institutions of all categories to another jobs in Katsina State and to the Northern part of the Country at large. It was further observed that many of the technical and vocational education teachers that left the teaching did so not because they do not like the teaching job but because of poor attitudes of their principals and vice principals towards both the technical teachers and the subject itself; poor attitude of the Ministry officials towards technical teachers and technical education at large; lack of working materials, tools and equipment in schools where they were teaching. Thus prevent them from developing practical skills learnt during their training; lack of motivation, poor salary and condition of services, job satisfaction, job challenging are all contributing factors for technical teacher exodus. Wrong posting and unnecessary transfer from urban to rural areas of technical teachers has also been revealed as factors for their leaving; lack of recognition of the teacher and the subject, incentive, job autonomy and financial compensation are also identified to be part of the reasons which many technical teachers leave the teaching profession.

It has also been identified that interest, readiness and conditions of service could be factors that are useful in discussing high rate of mass exodus and lower status of technical and vocational education teachers. It has been suggested by Herzberg (1959) that hygiene motivation factors could encourage and facilitate retention of technical and vocational education teachers if the physical conditions under which they work could be improved. If this is done, technical and vocational education teachers may find their working conditions conducive and comparable to what is obtained in other professions. For the observations

revealed from the review of related literature above, strategies for retaining technical and vocational education teachers in the teaching profession is of paramount. This is because the literature review has shown that the rate at which technical and vocational education teachers are leaving the teaching profession to other jobs is alarming. This research work filled up the left gaps by the previous researchers on the retention of teachers in the teaching profession. Such as sex difference of technical teachers, professional and non-professional technical teachers, graduate and non-graduate technical teachers, experienced and inexperienced technical teachers and other variables were all considered for this study.

## **CHAPTER III**

### **METHODS AND PROCEDURE**

This Chapter presents a description of the research design for this study and an outline of how the investigation was conducted. These include design of the study, area of the study, population of the study and the instrument used for data collection. Others are validation of the instrument, reliability of the instrument, method of data collection, and analysis.

#### **3.1 Design of the study**

The survey design was used in carrying out this research study. The survey design is considered the best design for this type study because of the type of information needed for this investigation. Kerlinger (1979: 423) observed that survey research focuses on people, their vital facts, believes, opinions, attitudes, motivation and behaviours. The study seeks the opinions of technical and vocational education teachers, principals/vice principals and administrators in technical and vocational education institutions in Katsina State regarding strategies for retaining technical teachers in technical and vocational education institutions in Katsina State.

#### **3.2 Area of Study**

This study was carried out in Katsina State of Nigeria. The state has a Secondary and Science and Technical Education Board.

#### **3.3 Population of the study**

The population for the study comprised 20 technical education administrators, 24 Principals/Vice Principals and 126 Technical teachers in technical and vocational education institutions in Katsina State of Nigeria as at second term 2013/2014 school year (January-March 2014). The composition of the population of the study on State and Institutional Basis are presented in Table 3.1 and Table 3.2 respectively.

**Table 3.1 Composition of the Population of Katsina State Technical and Vocational Education System**

S/No	Title of Post	Number
1.	TVE Administrator	20
2.	Principals/Vice Principals	24
3.	TVE Teachers	126
4.	<b>Total</b>	<b>170</b>

**Table 3.2 Composition of the Population on institution basis**

S/No	Institution	No	TVE Administrator	Principals/Vice Principals	TVE Teachers	Total
1.	Technical Colleges	4	-	12	96	<b>108</b>
2.	Vocational Training Centres	6	-	12	30	<b>42</b>
3.	State Educ. & Secondary School Board	2	20	-	-	<b>20</b>
4.	<b>Total</b>	<b>12</b>	<b>20</b>	<b>24</b>	<b>126</b>	<b>170</b>

The entire population was considered as the sample of the study because of its small size.

### **3.4 Instrument of the Study**

The questionnaire was used as the instrument for data collection of the study. The factors considered necessary for retaining technical teachers in the teaching professional were identified through the review of available literature. The instrument was developed by the researcher, (Appendix). The questionnaire was arranged in six sections, numbered A-D. Section A of the instrument was designed to reveal personal information about the

respondents such as type of institution, sex, educational qualification, and teaching experience. Section B contained 15 items that were used to elicit responses related to the causes of exodus of technical teachers from technical and vocational education institutions. Section C contained 19 items which was to elicit responses related to the strategies for retaining highly qualified technical teachers in the teaching profession. Finally Section D had 7 items developed to identify the strategies for retaining experienced technical teachers in the teaching profession especially in technical and vocational education institutions in Katsina State. In all, the questionnaire contained 41 items. The questionnaire was structured on a Likert-type five point response scale of Strongly Agree (SA), Agree (A) Undecided (UD), Disagree (D), and Strongly Disagree (SD). The scales were assigned the values of 5, 4, 3, 2 and 1 respectively. The respondents were required to rate how they considered the items by checking appropriate responses to each items. Pertinent instructions accompanied each section of the instrument.

#### **3.4.1 Validation of the Instrument**

The instrument was scrutinized for face validity by two experts in the department of technical and vocational education, Islamic University of Technology, Dhaka. This procedure was to ensure that the items conformed to the concepts and language of the subjects. Experts who participated in the validation ascertained that all the variables of the study were adequately catered for by the items in the instrument before final and valid instrument was produced. Based on the inputs from all these experts, the instrument was modified and finally used for the study.

#### **3.4.2 Reliability of the Instrument**

The instrument developed for this study was trial-tested with 20 technical and vocational education teachers teaching introductory technology in Katsina secondary schools to determine its internal consistency. The data collected from the trial-test was analyzed using Cronbach Alpha ( $\alpha$ ) method to determine the internal consistency of the instrument. The results of the Cronbach Alpha's analysis of each section are shown in **Table 3.3**

**Table 3.3 Cronbach's Alpha Reliability Co-efficient for TVETRQ from the Trial-Test**

<b>Title of the objective</b>	<b>No. of Items</b>	<b>Alpha</b>
Causes for the exodus of technical teachers	15	0.83
Strategies for retaining highly qualified technical teachers in the teaching profession	8	0.79
Strategies for retaining experienced technical teachers in the teaching service	7	0.77
Strategies for retaining female technical teachers in the teaching service	7	0.77

The information in Table 3.3 provided evidence that the items included in the Technical and Vocational Education Teacher Retention Questionnaire (TVETRQ) instrument were consistent in measuring the ideas intended. The test was considered reliably high because according to Erickson and Wentling (1976), Forguson, (1976), the more closely a reliability co-efficient is to 1.00 the more reliable the instrument is expected to be.

### **3.5 Method of Data Collection**

The questionnaire was administered to the population of 170 technical education administrators, principals/vice principals and technical teachers in technical and vocational education institutions from Ministry of Education and secondary school boards, 4 technical colleges and 6 vocational training centres in Katsina State as of March 2014. Each copy of the questionnaire was accompanied with a letter of instruction (Appendix A). The questionnaire was mailed to the volunteer whom the researcher knew very well and carried the questionnaire directly to the respondents in various technical and vocational educational institutions in Katsina State and Ministry of education, secondary school board. After collection of the data the volunteer mailed them to the researcher. 138 technical and vocational education administrators, principals/vice principals and technical teachers in vocational technical institutions in Katsina State completed and returned the questionnaire

used for data collection. This amounted to 81.17 percent return as shown in Table 3.4 and 3.5 respectively.

**Table 3.4 Distribution and Return of Completed Questionnaires by Group of Respondents**

S/No	Groups	(Dist)	(Retnd)
1	TVEAD	20	14
2	TTTVI	126	105
3	PR &VP	24	19
4	TOT	170	138

1. TVEAD = Technical and Vocational Education Administrators
2. TTTVI = Technical Teachers in Technical and Vocational Institutions
3. PR&VP = Principals and Vice Principals
4. Dist. = Distributed
5. Retnd = Returned

**Table 3.5 Distribution and Rate of Return of Completed Questionnaires by Group of Respondents**

S/No	Groups	(Dist)	(Retnd)	% (Retnd)
1	TVEAD	20	14	<b>70</b>
2	TTTVI	126	105	<b>83.3</b>
3	PR &VP	24	19	<b>79.1</b>
4	TOT	170	138	<b>81.17</b>

**Table 3.6 Interpretation of weighted average based on five point likert scale**

### 3.5.1 Method of Data Analysis

<b>Weighted age</b>	<b>Interpretation of the weight age</b>
Weighted age average $\geq 4.5$	Strongly Agree (SA)
$4.5 \geq 3.5$	Agree (A)
$3.5 \geq 2.5$	Undecided(U)
$2.5 \geq 1.5$	Disagree (D)
$1.5 \geq 0$	Strongly Disagree (SD)

This study has forty one research questions that were analyzed as follows:

1. Mean was used to analyze the response to research questions 1-41
2. Quantitative method of data analysis was used. Weighted average (WA) was used.



## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

This chapter presents the analysis of data obtained. The data were analyzed and presented according to the research questions formulated.

#### Research Question 1

What are the causes for technical teachers leaving the teaching profession in technical and vocational education institutions for other jobs?

**Table 4.1 Causes of technical teachers leaving the teaching profession in technical and vocational education institutions for other jobs**

S/No	ITEMS	SA	A	U	D	SD	WA
1	Lack of appreciation for job well done by the Government.	50 (36.2%)	45 (32.6%)	6 (4.3%)	31 (22.5%)	6 (4.3%)	<b>3.74</b>
2	Lack of job satisfaction.	33 (23.9%)	90 (65.2%)	10 (7.2%)	5 (3.6%)	0 (0%)	<b>4.09</b>
3	Lack of instructional materials.	28 (20.3%)	66 (47.8%)	2 (1.4%)	35 (25.4)	7 (5.1)	<b>3.53</b>
4	Irregular payment of salary.	16 (11.6%)	27 (19.6%)	8 (5.8%)	51 (37.0%)	36 (36.1%)	<b>2.54</b>
5	Irregular promotion.	32 (23.2%)	56 (40.6%)	24 (17.4%)	16 (11.6%)	10 (7.2%)	<b>3.61</b>
6	Lack of rapid educational advancement	14 (10.1%)	68 (49.3%)	7 (5.1%)	31 (22.5%)	18 (13.0%)	<b>3.21</b>

	opportunities i.e. in-service training.						
7	Better conditions of service in the private sector.	48 (34.8%)	69 (50.0%)	21 (15.2%)	0 (0%)	0 (0%)	<b>4.04</b>
8	Lack of equipment and working tools.	32 (23.2%)	98 (71.0%)	2 (1.4%)	6 (4.3%)	0 (0%)	<b>4.13</b>
9	Lower social status (prestige) of technical and vocational teachers in general.	13 (9.4%)	99 (71.7%)	20 (14.5%)	5 (3.6%)	1 (0.7%)	<b>3.86</b>
10	Lack of students interest in technical and vocational courses	34 (24.6%)	74 (53.6%)	10 (7.2%)	14 (10.1%)	6 (4.3%)	<b>3.84</b>
11	Lack of other resources of extra income.	41 (29.7%)	60 (43.5%)	23 (16.7%)	13 (9.3%)	1 (0.7%)	<b>3.92</b>
12	Lack of good fringe benefits.	47 (34.1%)	66 (47.8%)	7 (5.1%)	18 (13.0%)	0 (0%)	<b>4.03</b>
13	Too much emphasis on theory than practice in the curriculum.	61 (44.2%)	57 (41.3%)	5 (3.6%)	2 (1.4%)	13 (9.4%)	<b>4.09</b>
14	Too much workload not commensurate with their pay packets.	67 (48.6%)	37 (26.8%)	15 (10.9%)	6 (4.3%)	13 (9.3%)	<b>4.01</b>

15	Lack of electricity to operate equipment.	86 (62.3%)	31 (22.5%)	5 (3.6%)	0 (0%)	16 (11.6%)	<b>4.24</b>
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The data analysis of table 4.1 revealed that technical education administrators, principals/vice principals and technical teachers in technical and vocational education institutions strongly agreed with item (15), the lack of electricity to operate equipment (63.3 %) as one of the causes for technical teachers leaving the teaching profession in technical and vocational education institutions for other jobs.

The table also revealed that technical education administrators, principals/vice principals and technical teachers of technical and vocational education institutions agreed that lower status (prestige) of technical teachers (71.7%); lack of equipment and working tools (71 %) and lack of job satisfaction (65.2 %) as shown in items (9, 8 and 2) of table 4.1 are some of the causes of technical teachers leaving the teaching profession in technical and vocational education institutions to other jobs.

It is also noteworthy that a reasonable percentage of technical education administrators, principals/vice principals and technical teachers of technical and vocational education institutions disagreed with issue of irregular payment of salaries (37 %); lack of instructional materials (25.4 %); lack of educational advancement opportunities i.e. in-service training (22.5 %) and lack of appreciation for a job well done (22.5 %) as some of the causes of technical teachers leaving the teaching profession in technical and vocational education institutions for other jobs.

### **Research Question 2**

What strategies are to be adopted for retaining highly qualified technical teachers in the teaching profession?

**Table 4.2 Strategies for retaining highly qualified technical and vocational education teachers in the teaching profession**

S/No		SA	A	U	D	SD	WA
1.	Appoint highly qualified technical teachers as principals of technical and vocational institutions	76 (55.1%)	60 (43.5%)	0 (0%)	0 (0%)	2 (1.4%)	<b>4.51</b>
2.	Offer opportunity for self-improvement through in-service Training	78 (56.5%)	52 (37.7%)	5 (3.6%)	1 (0.7%)	2 (1.4%)	<b>4.47</b>
3.	Qualified technical teachers should not be transferred to rural areas.	31 (22.5%)	28 (20.3%)	27 (19.6%)	45 (32.6%)	7 (5.1%)	<b>3.22</b>
4.	Post highly qualified technical teachers to the Ministry as technical education administrators.	67 (48.6%)	67 (48.6%)	2 (1.4%)	2 (1.4%)	0 (0%)	<b>4.44</b>
5	Provide accommodation for qualified technical teachers within the College compound.	91 (65.9%)	47 (34.1%)	0 (0%)	0 (0%)	0 (0%)	<b>4.66</b>
6	Provide technical teachers special allowance (Technical Teachers Allowance).	104 (75.4%)	29 (21.0%)	0 (0%)	5 (3.6%)	5 (3.6%)	<b>4.68</b>
7	Provide vehicle loan to graduate and Post graduate technical teachers.	90 (65.2%)	42 (30.4%)	5 (3.6%)	1 (0.7%)	0 (0%)	<b>4.60</b>
8	Provide housing loan to	99	33	0	5	1	<b>4.62</b>

	graduate and Post Graduate Technical Teachers.	(71.7%)	(23.9%)	(0%)	(3.6%)	(0.7%)	
9	Technical teachers should earn the same as their counterparts with the same qualifications in the industry.	97 (70.3%)	31 (22.5%)	0 (0%)	10 (7.2%)	0 (0%)	<b>4.56</b>
10	Provision should be made for technical teachers' allowance	96 (69.6%)	40 (29.0%)	0 (0%)	2 (1.4%)	0 (0%)	<b>4.67</b>
11	Provide working tools (hand, measuring and marking out tools).	109 (79.0%)	29 (21.0%)	0 (0%)	0 (0%)	0 (0%)	<b>4.79</b>
12	Enlighten the society on the importance of technical teachers.	68 (49.3%)	63 (45.7%)	0 (0%)	7 (5.1%)	0 (0%)	<b>4.39</b>
13	Improve the working conditions and important fringe benefits.	73 (52.9%)	65 (47.1%)	0 (0%)	0 (0%)	0 (0%)	<b>4.53</b>
14	Provide in-service training.	86 (62.3%)	52 (37.7%)	0 (0%)	0 (0%)	0 (0%)	<b>4.62</b>
15	Provide workshops and adequate equipments in all technical and vocational institutions.	104 (75.4%)	34 (24.6%)	0 (0%)	0 (0%)	0 (0%)	<b>4.75</b>
16	Provide technical textbooks	106 (76.8%)	27 (19.6%)	0 (0%)	3 (2.2%)	2 (1.4%)	<b>4.68</b>
17	Increase prospects of promotion and salary	118 (85.5%)	19 (13.8%)	0 (0%)	0 (0%)	1 (0.7%)	<b>4.83</b>

	increase						
18	Provide accommodation for technical teachers.	85 (59.4%)	56 (40.6%)	0 (0%)	0 (0%)	0 (0%)	<b>4.59</b>
19	Give technical teachers high status.	72 (52.2%)	59 (42.8%)	7 (5.1%)	0 (0%)	0 (0%)	<b>4.47</b>

The result of analysis of data in Table 4.2 reveals that all the 3 groups (technical education administrators, principals/vice principals and technical teachers of technical and vocational institutions) agreed with all the items with exception of item 3 where a certain percentage of the group (32.6 %) disagreed with the issue that qualified technical teachers should not be transferred to rural areas. The following items of Table 4.2 (6, 5, 8 and 7) attracted the highest weighted averages (4.68, 4.66, 4.62 and 4.6) while item 3 attracted the lowest weighted average (3.22).

The table revealed that technical education administrators, principals/vice principals and teachers of technical and vocational education institutions strongly agreed with items 17, 11, 16, 15, 9 (85.5 %, 79 %, 78.8 %, 75.4 % and 70.3 % ) respectively and agreed with the remaining 6 items, even though at the same time a negligible majority (7.2 %) of the respondents disagreed with item 9. Also, a negligible majority (5.1 %) of the respondents were undecided on item 19.

However, from the individual weighted averages of Table 4.2 with each greater than 3.5 except item 3, it is seen that all the three groups; technical education administrators, principals/vice principals and teachers of technical and vocational education institutions in Katsina State agreed with all the items except 3 with weighted average below 3.5. This suggests that in order to retain highly qualified technical teachers in the teaching profession in technical and vocational education institutions in Katsina State, the 18 items in Table 4.2 should be considered.

### **Research Question 3**

What strategies are to be applied to retain experienced technical teachers in the teaching profession?

**Table 4.3 Strategies for Retaining Experienced Technical Teachers in the Teaching Profession**

<b>S/No</b>	<b>ITEMS</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>	<b>WA</b>
1.	Experienced technical teachers would remain as professional teachers if given the same looking as their counterparts in other sectors.	108 (78.3%)	30 (21.7%)	0 (0%)	0 (0%)	0 (0%)	<b>4.78</b>
2.	Only experienced technical teachers should be appointed as technical education administrators in the Ministry.	77 (55.8%)	48 (34.8%)	1 (0.7%)	12 (8.7%)	0 (0%)	<b>4.38</b>
3.	Provide vehicle loan to experienced technical teachers.	73 (52.9%)	60 (43.5%)	0 (0%)	5 (3.6%)	0 (0%)	<b>4.46</b>
4.	Provide housing loan to experienced technical teachers.	86 (62.3%)	47 (34.1%)	0 (0%)	0 (0%)	5 (3.6%)	<b>4.51</b>
5	Give responsibilities to experienced technical teachers in the school i.e. Principals/Vice Principals.	103 (74.6%)	35 (25.4%)	0 (0%)	0 (0%)	0 (0%)	<b>4.75</b>
6	Give experienced technical teachers special awards based on their years of experience.	60 (43.5%)	78 (56.5%)	0 (0%)	0 (0%)	0 (0%)	<b>4.43</b>
7	Provide free-in-service	60	71	7	0	0	<b>4.38</b>

	training programme for experienced technical teachers.	(43.5%)	(51.4%)	(5.1%)	(0%)	(0%)	
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The information in Table 4.3 presents a detailed analysis of the item weighted averages that were developed to answer the research question 4. With exception from item 1 where the 3 group of respondents strongly agreed that experienced technical teachers would remain as professional teachers if given the same looking as their counterparts in other sector, all the respondents agreed with the other items in Table 4.3 as shown by their various weighted averages which are greater than 3.5.

Further information in Table 4.3 showed that the highest weighted average for the cluster was obtained by item 1 and 5 respectively. However, a few respondents (8.7 %) of the 3 groups disagreed with the issue of item 2 that only experienced technical teachers should be appointed as technical education administrators in the ministry. Again, a smaller majority of the respondents (3.6 %) of them strongly disagreed with the issue that housing loan should be provided to experienced technical teachers as shown in item 3 of Table 4.3. Thus, it may be suggested that in order to retain experienced technical teachers in the teaching profession, all the 7 items should be considered.

#### **4.1 Findings of the study**

Based on the data collected and analyzed, the following findings were made by the study:

The following are the causes for the exodus of technical teachers from the teaching profession;

Lack of appreciation for job well done by the Government; lack of job satisfaction; Lack of instructional materials; irregular payment of salary; irregular promotion; lack of rapid educational advancement opportunities i.e. in-service training; better condition of service in the private sectors; lack of equipment and working tools for practical projects in technical



and vocational education institutions; lower social status (prestige) of technical and vocational teachers in general; lack of other sources of extra income; lack of good fringe benefits; too much emphasis on theory than practice in the curriculum; too much workload not commensurate with their pay packets; lack of electricity to operate equipment.

The following are strategies to be adopted for retaining highly qualified technical teachers in the teaching profession.

1. Post highly qualified ones as principals and vice principals of technical and vocational education institutions.
2. Offer opportunity for self-improvement through in-service training.
3. Do not transfer highly qualified technical teachers to rural areas.
4. Post qualified technical teachers to the ministry as technical education administrators.
5. Provide accommodation to qualified technical teachers within the college compound.
6. Provide qualified technical teachers' special allowance i.e. technical teachers' allowance.
7. Provide vehicle loan to highly qualified technical teachers.
8. Provide housing loan to highly qualified technical teachers.
9. Technical teachers should earn the same as their counterpart with the same qualifications in industry.
10. Provision of technical teachers allowance.
11. Provide working tools (hand, measuring and marking out tools).
12. Enlighten the society on the importance of technical teachers.
13. Improve working conditions and important fringe benefits.
14. Provide in-service training for technical teachers.
15. Provide workshops and adequate equipments in all technical and vocational institutions.
16. Provide technical textbooks
17. Increase prospects for promotion, and salary increase.
18. Provide accommodation for technical teachers
19. Give technical teachers high social status

Strategies for retaining experienced technical teachers in the teaching profession are as follows:

1. Experienced technical teachers would remain as professional teachers if given the same looking as their counterparts in other sectors.
2. Only experienced technical teachers should be appointed as technical education administrators in the Ministry.
3. Provide vehicle loan to experienced technical teachers.
4. Provide housing loan to experienced technical teachers.
5. Give responsibilities to experienced technical teachers in the school i.e. principals/vice principals.
6. Give experienced technical teachers special awards based on their years of experience.
7. Provide free in-service training programmes for experienced technical teachers.

## **CHAPTER V**

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

This chapter presents the summary of this study, under the following subheadings; re-statement of the problem, description of procedure used, summary of finding, Conclusions, implications, recommendations and suggestions for further research.

#### **5.1 Re-statement of the problem**

The problem of retaining teachers, particularly technical teachers of technical and vocational educational institutions is as far back as 1960s (Abbas, 1993). The studies of (Usman, 1992, Ajiji and Samuel, 1997) pointed out that the constant exodus of technical teachers from teaching to better paying jobs in other sectors of the economy is responsible for the shortfall of technical teachers in our Institutions particularly the Northern part of the Country where the studies were conducted. As a result of trained technical teachers abandoning the teaching profession for more attractive opportunities in Industries, there is acute shortage of professionally trained technical teachers needed in the nation schools and Colleges. The shortage of technical and vocational teachers therefore may have caused a very serious constraint on the smooth implementation of the National Policy on Technical Education. Following from the above therefore, it becomes imperative to device strategies to retain the few trained technical teachers serving in the technical and vocational education institutions of Katsina State.

Available literature on this topic has failed to identify the categories of technical teachers that are leaving the teaching profession for other jobs. The reports available only revealed that there was exodus of technical teachers generally, irrespective of academic qualifications, experience, sex-difference and other related factors. The current research put all of the above factors under consideration in finding ways and means of retaining technical teachers in the teaching profession in order to reduce the exodus of teachers in Katsina State technical and vocational education institutions to better paying jobs.

## **5.2 Summary of Procedures Employed for the Study**

This study aimed at gaining into how Katsina State technical education administrators, technical principals/vice principals and technical teachers in technical and vocational education institutions perceive the retention of qualified technical teachers in technical and vocational education institutions in the state. The study came up from the concern that the introduction of introductory technology at the secondary school level in Nigeria, the rapid expansion of technical and vocational education institutions in Nigeria, Introduction of more courses in technical and vocational education institutions and the exodus of technical teachers from the teaching profession to other jobs resulted in phenomenal inadequacies in terms of demand and supply of technical teachers in technical and vocational education institutions.

A review of related literature identified evidence that the concern is justifiable and pointed to some likely causes why there is shortage of all types of technical teachers in technical and vocational education institutions. After the development of the instrument, its review and subsequent refinement by the supervisor, the instrument was further submitted to technical and vocational education experts for validation and refinement. The suggestions of the experts were incorporated into the final Instrument that was developed and used for this study. Reliability of the final instrument containing 41 items was determined by using Cronbach Alpha ( *$\alpha$* ) method which yielded highly reliable co-efficient of internal consistency. The result indicated that the questionnaire provides consistent measure of the retention of technical teachers in technical and vocational education institutions in Katsina State.

For the post-test, the researcher arranged with some of his colleagues in Katsina to administer the Instrument in technical and vocational education institutions in Katsina State. Returned completed questionnaires were analyzed using percentages, and weighted averages. Extensive use of tables was employed in the presentation of data. Each table was followed by

brief descriptions and observations from the data presented. Data relevant to each research questions were analyzed using weighted averages. The high points of the findings and conclusions drawn from the data analysis were reported in the various sections of this study.

### **5.3 Principal Findings**

The following are the principal findings of the study.

1. Causes for technical teachers leaving the teaching profession in technical and vocational education institutions to other jobs include:

(i) Lack of appreciation for job well done by the Government (ii) Irregular payment of salary (iii) Better condition of service in the private sectors (iv) Too much emphasis on theory than practice in the curriculum (v) Too much workload not commensurate with their pay packets. (vi) Lack of job satisfaction by the teachers. (vii) Lack of instructional materials. (viii) Lack of rapid educational advancement opportunities i.e. in-service training. (ix) Lack of equipment and working tools for practical projects in technical and vocational education institutions. (x) Lack of other sources of extra income (xi) Lack of good fringe benefits (xii) Irregular promotion. (xiii) ' Lower social status (prestige) of vocational and technical teachers in general.

2. Strategies for retaining highly qualified technical teachers in the teaching profession include:

(i) Appoint highly qualified ones as principals and vice principals of technical and vocational education institutions. (ii) Offer opportunity for self-improvement through in-service training. (iii) Highly qualified technical teachers should also be posted to rural areas. (iv) Post qualified technical teachers to the Ministry as technical education administrators. (v) Provide accommodation to qualified technical teachers within the college compound. (vi) Provide qualified technical teachers special allowance i.e. technical teacher's allowance. (vii) Provide vehicle loan to highly qualified technical teachers. (viii) Provide housing loan to highly qualified technical teachers.

(ix) Technical teachers should earn the same as their counterpart with the same qualifications in industry. (x) Provide technical teachers' allowance (xi) Provide working tools (hands, measuring and marking out tools). (xii) Enlighten the society on the importance of technical teachers. (xiii) Improve working conditions and important fringe benefits. (xiv) Provide in-service training for technical teachers. (xv) Provide workshop and adequate equipment in all technical and vocational institutions (xvi) Provide technical text books. (xvii) Increase prospects for promotion and salary increase. (xviii) Provide good accommodation for technical teachers. (xix) Give technical teachers high social status.

3. Strategies to retain experienced technical teachers in the teaching profession include

(i) Experienced technical teachers would remain as professional teachers if given the same looking as their counterparts in other sectors. (ii) Only experienced technical teachers should be appointed as technical education administrators in the Ministry. (iii) Provide vehicle loan to experienced technical teachers. (iv) Provide housing loan to experienced technical teachers. (v) Give responsibilities to experienced technical teachers in the school i.e. principals/vice principals. (vi) Give experienced technical teachers' special award based on their years of experience (vii) Provide free in-service training programmes for experienced technical teachers.

#### **5.4 Conclusions**

The causes for the exodus of technical teachers from the teaching profession identified by the study represents what the technical education administrators, technical principals/vice principals and technical teachers in technical and vocational education institutions involved in the study considered as important factors for the exodus of qualified, trained and experienced technical teachers from teaching service in technical and vocational education institutions in Katsina State. Furthermore, strategies for retaining trained, qualified, experienced and highly qualified technical teachers identified by the study represents what the technical education administrators, technical principals/vice principals and technical teachers in technical and vocational education institutions considered important strategies to

be adopted to retain teachers in the teaching service in Katsina State technical and vocational education institutions.

It is expected that adequate implementation of the identified strategies for retaining technical teachers in the teaching profession will lead to increase in the interest of qualified technical teachers in the teaching service in Katsina State technical and vocational education institutions. Thus also decrease the rate of qualified technical teachers leaving from teaching to other jobs and equally increase the number of experienced and qualified technical teachers in Katsina State technical and vocational education institutions.

#### **5.4.1 Implications of the Research Findings**

Listed below are the implications arising from this study. The implication of each finding as it affects technical teachers' retention in Katsina State technical and vocational education institutions are highlighted.

1. The findings of this study could serve as input for improving the provision of necessary facilities in the form of adequate instructional materials, infrastructure, equipment, working tools and electricity supply to all Katsina State technical and vocational education institutions. Thus in most cases cause the exodus of technical teachers from the teaching profession to other lucrative jobs.

2. The findings which pointed to serious exodus of technical teachers from the teaching have dire consequences for the future of technical education in technical and vocational institutional level and the development of technical education in Nigeria at large. Unless this situation is arrested immediately, the problems of shortages of technical teachers in technical and vocational education institutions will remain for sometimes. And the graduate of technical and vocational education institutions will not be skillfully prepared for self-reliance because they will not be productive technically.

3. The findings of this study regarding the strategies for retaining technical teachers in technical and vocational education institutions in Katsina State have very serious implications for those in leadership positions in technical and vocational education institutions and technical teacher education at large.

If strategies for retaining technical teachers are implemented, the benefits to be derived from such an exercise will provide the needed technical teachers for technical and vocational education institutions. It will also provide the needed impetus required for the improvement of technical teacher education and technical education at large.

4. Planning and implementing a functional technical and vocational education institutions implies that the technical teachers themselves need certain relevant qualification, experience and involvement of all citizens both males and females. Therefore, the findings of this study tended to suggest a need for re-examination of the retention of technical teachers in technical and vocational education institutions in order to adequately equip the trainees with the skills needed for the world of work.

### **5.5 Recommendations**

The following recommendations were made based on the findings of this study.

1. Strategies for retaining technical teachers identified in this study should be incorporated into the retention of technical teachers exercise by the various technical education administrators, technical principals/vice principals and technical teachers in technical and vocational institutions to ensure the production of competent graduates from technical and vocational education institutions.

2. Katsina State Government should through her education ministry and school boards set in motion machinery for implementing the findings of this study in respect of the technical teachers' qualification, and experience towards technical teacher recruitment and retention into technical and vocational education institutions.



3. The Federal and State Ministries of Education should embark on large scale training and re-training of technical teachers in all subject areas currently offered in technical and vocational education institutions to ensure the implementation of the national policy on technical education as it affects the retention of technical teachers to teach in technical and vocational education institutions.

4. The State and Local Government of Katsina State should address with seriousness the problems of non-availability and/or the existence of ill-equipped workshops, lack of electricity supply to the institutions, lack of instructional materials, and non-payment of technical teachers' allowance, lack of qualified and experienced technical teachers in technical and vocational education institutions.

5. The production of post graduate technical teachers needs to be properly addressed. Therefore, more Universities and Universities of Technology should be mandated to cater for regular training of post graduate technical teachers, of which the demand is always on the increase.

#### **5.5.1 Suggestions for Further Research**

Based on the literature reviewed and the scope of data analysis for this study, it was suggested that further research be conducted in the following areas:-

1. Factors responsible for the poor public image of technical teachers.
2. Future requirements for all categories of technical teachers' qualifications and experiences needed by the year 2015 and above.
4. Retention of technical teachers in technical and vocational education institutions in Northern Nigeria.
5. A study can be conducted on the training of skillful technical teachers to handle the instructional aids in technical and vocational institutions in other States of Nigeria.
6. This present study could be replicated in other States of Nigeria.

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## **APPENDIX A**

### **A STUDY TO IDENTIFY THE FACTORS AFFECTING THE RETENTION OF TEACHERS IN TECHNICAL AND VOCATIONAL EDUCATION INSTITUTIONS IN KATSINA STATE, NIGERIA**

I am a Master of Science in Technical Education (Electrical Engineering) student in the Department of Technical and Vocational Education, Islamic University of Technology, Dhaka, Bangladesh.

I am undertaking a study on "A study to identify the factors affecting the retention of teachers in technical and vocational education institutions of Katsina State, Nigeria. It is hoped that the outcome of the study will assist educators and policy makers to ascertain why technical teachers are leaving the teaching profession. It is also hoped that the findings of this research will assist the policy makers to plan and improve the conditions of service for technical and vocational teachers with a view to retaining them in teaching.

I therefore, humbly request you to respond to the attached questionnaire objectively. The questionnaire contains a number of statements seeking information on strategies for retaining technical teachers in the teaching profession. You are requested to express your opinion on the extent to which you agree or otherwise with each of the statements by checking ( ) one of the five responses from

"Strongly Agree" (SA), "Agree" (A), "Undecided (U), "Disagree" (D) and "Strongly Disagree" (SD).

Your responses are purely for research purposes and will be treated confidentially and used strictly for the purpose of the research.

Yours Sincerely,

Saifullahi Kasim Tafida

**TECHNICAL AND VOCATIONAL EDUCATION TEACHERS'  
RETENTION STRATEGIES QUESTIONNAIRE (TVETRSQ)**

**Section A: General Information**

Name of the School, Ministry/Board: .....

.....

Sex: ..... Subject Taught/Area of Specialization: .....

.....

Please kindly respond to all the items by checking ( ) in the appropriate option.

1. Your class of teacher:-

(a) Technical-Vocational Education Administrator ( )

(b) Technical-Vocational Education Principals/Vice Principals ( )

(c) Technical-Vocational Education Teacher ( )

2. Highest Educational Qualification Attained by you:-

(a) M.Ed (Tech) ( ) (b) B. Ed (Tech) ( ) (c) P.G.D.E. (Tech) ( ) (d) N.C.E. (Tech) ( )

(e) Others (Please specify): - .....

3. Your years of teaching experience:-

(a) 1 - 4 years ( ) (b) 5 - 8 years ( ) (c) 9 & above ( )

## SECTION B:

### Research Question One

The following factors are considered to be responsible for the departure of technical teachers from teaching in technical and vocational institutions of Katsina State.

Check ( ) in the appropriate column to indicate the degree of your agreement or disagreement with each of the statements.

#### Key

**SA** - Strongly Agree    **A** - Agree    **U** - Undecided    **D** - Disagree    **SD** -Strongly Disagree

#### Technical and Vocational Teachers constantly leave the teaching because of:

S/No	ITEMS	SA	A	U	D	SD
1	Lack of appreciation for job well done by the Government.					
2	Lack of job satisfaction.					
3	Lack of instructional materials.					
4	Irregular payment of salary.					
5	Irregular promotion.					
6	Lack of rapid educational advancement opportunities i.e. in-service training.					
7	Better conditions of service in the private sector.					
8	Lack of equipment and working tools.					
9	Lower social status (prestige) of technical and vocational teachers in general.					
10	Lack of students interest in technical and vocational courses					
11	Lack of other resources of extra income.					
12	Lack of good fringe benefits.					
13	Too much emphasis on theory than practice in the curriculum.					
14	Too much workload not commensurate with their pay packets.					
15	Lack of electricity to operate equipment.					

## SECTION C

### Research Question Two

Check ( ) by indicating the degree of your agreement or disagreement with the strategies to be adopted for retaining highly qualified technical teachers in the teaching profession.

#### Strategies for retaining highly qualified Technical and Vocational Education Teachers in the Teaching Profession

S/No		SA	A	U	D	SD
1.	Appoint highly qualified technical teachers as principals of technical and vocational institutions					
2.	Offer opportunity for self improvement through in-service Training					
3.	Qualified technical teachers should not be transferred to rural areas.					
4.	Post highly qualified technical teachers to the Ministry as technical education administrators.					
5	Provide accommodation for qualified technical teachers within the College compound.					
6	Provide technical teachers special allowance (Technical Teachers Allowance).					
7	Provide vehicle loan to graduate and Post graduate technical teachers.					
8	Provide housing loan to graduate and Post Graduate Technical Teachers.					
9	Technical teachers should earn the same as their counterparts with the same qualifications in the industry.					
10	Provision should be made for technical teachers' allowance					
11	Provide working tools (hand, measuring and marking out					

	tools).					
12	Enlighten the society on the importance of technical teachers.					
13	Improve the working conditions and important fringe benefits.					
14	Provide in-service training.					
15	Provide workshops and adequate equipments in all technical and vocational institutions.					
16	Provide technical textbooks.					
17	Increase prospects of promotion and salary increase.					
18	Provide accommodation for technical teachers.					
19	Give technical teachers high status.					

## SECTION D

### Research Question Three

The items on strategies to be applied for retaining experienced technical teachers in the teaching profession are listed below:

Check ( ) in the appropriate column your opinion on strategies to be applied for retaining experienced technical teachers in the teaching profession. Indicate the level of your agreement or disagreement with each item.

### Strategies for Retaining Experienced Technical Teachers in the Teaching Profession

S/No	ITEMS	SA	A	U	D	SD
1.	Experienced technical teachers would remain as professional teachers if given the same looking as their counterparts in other sectors.					
2.	Only experienced technical teachers should be appointed as technical education administrators in the Ministry.					
3.	Provide vehicle loan to experienced technical teachers.					

4.	Provide housing loan to experienced technical teachers.					
5	Give responsibilities to experienced technical teachers in the school i.e. Principals/Vice Principals.					
6	Give experienced technical teachers special awards based on their years of experience.					
7	Provide free-in-service training programme for experienced technical teachers.					

