UNIVERSITY OF CAPE COAST

IMPLEMENTATION OF THE ENTREPRENEURSHIP SKILLS TRAINING IN PUBLIC TECHNICAL INSTITUTES IN THE CENTRAL AND WESTERN REGIONS OF GHANA

ROGER KWABLA KLU

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BY

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THESIS SUBMITTED TO THE VOCATIONAL AND TECHNICAL DEPARTMENT OF THE FACULTY OF EDUCATION, UNIVERSITY OF CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY DEGREE IN VOCATIONAL AND TECHNICAL EDUCATION

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: …… Date: …….

Name: Roger Kwabla Klu

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: …… Date…….

Name: Dr. Nicholas Aidoo-Taylor

Co-Supervisor's Signature: …….. Date: …….

Name: Dr. Faustina Amoako-Kwakye

ABSTRACT

The purpose of the study was to find out the extent to which the entrepreneurship skills training (EST) course was being implemented in public technical institutes in the Central and Western Regions of Ghana.

The descriptive survey was used for the study and two sets of questionnaires were used to collect data for the study. The purposive and random sampling methods were used to select 204 respondents. Tables, frequencies, percentages and weighted mean scores were used to analyze and present data.

The main results of the study are that majorities (79%) of the EST teachers are professionally trained teachers but 56% of them lacked skills and knowledge in entrepreneurship. There are adequate classrooms and furniture in the institutes but teaching and learning materials are inadequate for both teachers and students. Most of the recommended teaching methods are strategies for the course are not used by teachers. However, both teachers and students had a clear understanding of the purpose and objectives of the EST syllabus. The study revealed that there was unsuccessful implementation of the EST course based on fidelity approach to the study.

These results have prompted the recommendation of a number of recommendations to help promote effective implementation of the course. The important recommendations are that periodic in-service training and workshops should be organized for the teachers and also more EST trainers' guide and reference materials for the course should be provided.

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DEDICATION

To my wife Elizabeth Manna and children,
Beatrice Yawo Klu and Roland Edem K. Klu

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CHAPTER ONE

INTRODUCTION

Background to the Study

Technical Vocation Education and Training according to the International Labour Organization [ILO] (1998), is generally designed to prepare school leavers for wage employment in the formal and informal sectors. Every year, large numbers of school leavers, without employable skills, attempt to enter the labour market to look for inadequate, and sometimes non-existent, wage employment in the modern society (ILO, 1998). Boateng (1994) observed that the public sector, as the leading employer of school leavers in Ghana declined since 1987 when the public sector retrenchment programme were carried out under the UNDP/ILO Umbrella Programme for Sustained Employment Generation { Aggrey. 1993} This has created a problem of unemployment and has become a major concern to all stakeholders of education in Ghana, particularly the government. It has therefore; become necessary to create more jobs (Nelson, 1993).

If the employment creation objective is to be achieved, the small enterprise sector will have an important role to play in providing additional jobs. This is so because there are more opportunities in the small enterprise sector to introduce new goods and services into the market. This will be possible only when students with technical and entrepreneurial skills are prepared to take advantage of the new business opportunities. In this

connection, Nelson (1993) argued that there is the rising importance of the private enterprise sector as a determinant of economic growth.

It was against these developments that the Government of Ghana saw the need to modify the country's educational system under the educational reform of 1987, because the previous educational system was not able to solve the unemployment problems. The attempt was to vocationalise the system at all the levels. Thus, the 1987 educational reform was intended to equip school leavers with employable skills for employment and also to promote small enterprise development, particularly in the informal sector (Aggrey, 1994).

Fortunately, training for entrepreneurship and self-employment has been accepted in Ghana as desirable. Therefore, when the polytechnics were elevated to tertiary status, as a policy, they were requested to offer a core course in entrepreneurship skills. A study conducted by the Presbyterian Church of Ghana (PCG) and Evangelische Zenstralstelle feur Entwicklungshife (EZE) from Germany on 20 Ghana Vocational Institutes in 1992 revealed that past trainees (graduates) were not able to immediately enter the job market as self-employed or wage–employed. The reason was that the graduates had not been trained in entrepreneurial skills to prepare them for self-employment. Those who ventured into setting up their own business did so with huge risk and endured a lot of frustration, which sometimes ended them in failure (Ntiamoah-Mensah, 2002).

It was therefore, recommended strongly in the study that Entrepreneurship Skills Training (EST) should be introduced into the curriculum of Ghana pre-tertiary technical and vocational institutes to prepare

the trainees better for the world of work and thus increase their employment opportunities (Ntiamoah-Mensah, 2002).

The Technical and Vocational Education Division (TVED) of the Ghana Education Service (GES) has, as part of its mission, a responsibility to prepare the students of the public technical institutes to enter directly the world of work. However, graduates from these institutes who have been trained in various trades skills find themselves unemployed or underemployed. In order to address this problem, the GES introduced Entrepreneurship Skills Training (EST) course in the curriculum of the public technical institutes in the year 2002 (Ntiamoah-Mensah, 2002).

The objectives of the EST course at this level are to:

1. equip the trainees in formal technical and vocational training with entrepreneurship skills and employable skills relevant to the trade area.
2. promote awareness of the trainees about the demands of the world of work.
3. encourage trainees to look at self-employment as a viable alternative to wage employment.
4. recognize the vital relationship between vocational skills training and opportunity for employment.

5 Develop the trainees' moral attitude to business operation

The introduction of the EST course at the technical institute level necessitated the training of technical teachers to have the required knowledge and skills to teach the course. Consequently, in 2002, 20 technical teachers were selected from the public technical institutes in Ghana to embark on a

training of trainers' workshop on Entrepreneurship Skills Development at the Ajumako Ghana Education Staff Development Institute (GESDI). These trained technical teachers in turn provided training to the teachers in their various institutes for the implementation of the EST course.

However, the implementation of a planned programme, in almost every sphere of life, is very often fraught with problems. Either the planned programme is not implemented strictly according to the specification in the plan, or changes are made to the plan or even, in extreme cases, the programme is abandoned due to some difficulties (Fullan, 1991). The implementation of a programme or curriculum in schools is not exempted from these constraints.

There is a tendency among some teachers to ignore some important aspects of a planned curriculum during implementation. The curriculum may not then be executed along the lines proposed by the designers. Some relevant principles underlying that particular curriculum, and which when followed will contribute positively towards the achievement of the goals for learning the subject, may even be ignored. At best, the teachers may pay only lip service to these principles, which in reality, they do not apply in their classroom practices.

The deviation from strict adherence to the planned curriculum by implementers may be due to a number of factors. These may include absence of motivation, lack of clarity, inadequate resources for the innovation and scepticism (Pratt, 1980). For a successful and maximum implementation of a programme to occur, Gross, Giancquinta, and Bernstein (1971) are of the view that changes must be made in the behaviour of all affected parties. Rudduck

and Kelly (1976) mentioned translocation, communication, animation and reduction as components of an effective dissemination strategy for a successful implementation of an innovation.

Despite the growing demand for preparing technical and vocational students for self-employment through the EST, there is no information about the extent of implementation of the EST course in the public technical institutes. If the EST intervention is to succeed and have the desired impact, the people for whom the course is intended as well as the implementers would have to perceive the course positively. In other words, a positive attitude must be developed towards the course by both teachers and students to make it succeed (Chambers, 1989). This notwithstanding, no concrete attempt seems to have been made to examine how the EST course in the public technical institutes is being implemented. The lack of such information prompted this study on the implementation of the EST course in the Public Technical Institutes in the Central and Western Regions of Ghana.

Statement of the Problem

EST had not featured in the Ghana education system. It was not included in the curriculum for the 1987 educational reform programme. The subject, therefore, is new to many technical teachers except those who recently graduated from the polytechnics and the universities in Ghana which began teaching entrepreneurship in the last few years. Also, students in the public technical institutes may have different perception and attitude towards EST. The move to introduce EST in the curriculum of technical institutes to prepare trainees to acquire entrepreneurship skills for self-employment rests mostly with the teachers who are the implementers. It may be difficult for those who

have little or no training in the subject to teach the course effectively to achieve its objective (Ashmore, 1990).

Naturally, teachers and students of technical institutes, for that matter those in the Central and Western Regions of Ghana, may not have a sound conception of the EST curriculum because it is new. Comments from some of the teachers during the training workshop on EST at the Ajumako Ghana Education Staff Development Institute (GESDI) in 2005 underscored the problem of conception of the course. For example, majority of the teachers lacked business and accounting (financial) skills to enable them to teach the course effectively. Consequently, perception and attitude of teachers and students about the course may be different from what is expected by the policy makers in the G E S.

At Asuansi Technical Institute it is noted that teachers have constantly complained about the quantity and quality of instructional materials for teaching EST. Such complaints may be experienced in some other technical institutes. It is therefore, likely that teachers in the technical institutes may have difficulties in teaching the EST course effectively. Again the teaching and learning of EST may not be well focused, as teachers and students may lack clarity about the objectives of the course, and teachers may also not have adequate capacity for teaching the innovative course.

The researcher's experience as a teacher at the Asuansi Technical Institute has revealed that, majority of the students do not attend EST classes regularly. The students see EST course as time wasting and irrelevant because it is not examined externally as compare with the trade courses which are examined externally. There is, therefore, the tendency of teachers and

students to have difficulty in understanding EST course as a tool for preparing trainees for self-employment and national development.

Purpose of the Study

The purpose of the study is to determine the extent to which actual use of the EST syllabus, introduced in 2002, correspond to the planned or intended use and to identify the factors which affect the implementation of the EST course in the four public technical institutes in the Central and Western Region of Ghana.

Specifically, the main objectives of the study are to:

1. find out how the characteristics of the EST syllabus are clear to the students and teachers in the technical institutes.
2. find out whether teachers have the requisite knowledge and skills for teaching the course.
3. determine the extent to which resources for the implementation of the EST course are available in the institutes.
4. identify the major factors that affect the implementation of the EST course in the technical institutes.

Research Questions

The study attempted to find answers to the following questions:

1. To what extent are the characteristics of the EST course (purpose, objectives, and competency based syllabus) clear to the teachers and students of the technical institutes?

2. To what extent have the teachers prepared to acquire the appropriate knowledge and skills for teaching the course?
3. To what extent are the institutional organization and practices compatible with the EST which is competency based syllabus?
4. To what extent are the facilities and other instructional resources required for the course available in the technical institutes?
5. Which factors facilitate or impede the implementation of the EST?
6. To what extent do the teachers and students consider the EST to be relevant to the career of the trainees?

Hypotheses

In addition to the stated research questions, the following hypotheses were tested:

1. There is no significant difference between the teachers and the students about the clarity of the objectives and the requirements of the EST course.
2. There is no significant difference between the teachers and the students' perception with regard to the availability of facilities and material resources for the implementation of the EST course.
3. There is no significant difference between the teachers and the students' perception with regard to the relevance of the EST course.

Significance of the Study

Findings from the study may provide the necessary information to educational planners, policymakers and administrators to put in place policies for successful implementation of the EST course in the technical institutes.

Again the study may serve as a reference point for further investigation into the implementation of other subject areas.

The findings from the study will also be useful in pre-service and in – service preparation of teachers so that they become aware of the factors which can promote or hinder the successful implementation of the EST course in the technical institutes.

In addition, the findings may enable the teachers teaching EST to plan for the future and make adjustment or restructure the course where necessary to maker it more functional.

Finally, knowledge and information provided by the study may also whip up interest in curriculum implementation particularly in the field of entrepreneurship studies.

Delimitation

This study is not an attempt to test theories of entrepreneurship nor is it trying to evaluate the entrepreneurship development course in the technical institutes. It is specifically to study the extent of implementation of the entrepreneurship skills training (EST) course (introduced in 2002) in the public technical institutes in the Central and Western regions of Ghana.

These institutions are selected for the study because they have all the characteristics of Ghana public technical institutes and they are accessible to the researcher in terms of geographical locations.

This study covered the teachers teaching EST and the final year intermediate students in the four institutes. The final year students were studied because they were the subject or users of the curriculum and might have completed or about to complete the EST Course. The teachers were

included because of the important role they play in the implementation of the EST curricular.

Limitations

The use of questionnaire formed the principal instrument for data collection, hence biases would not be ruled out. These biases would arise as a result of some respondents answering the questionnaire the way they feel but not what is really the case.

Because not all the questionnaire were completed as scheduled and collected on the spot, there is the possibility of some respondents discussing and copying from one another. This may not reflect the true response of the individual and may affect the return rate as well as the validity of the result.

Furthermore, the researcher's own background and experience in one of the technical institutes can influence the interpretations and analysis of the findings.

Finally, the presence of the observer (researcher) in classes during the study could affect the performance of the teacher which could affect the data collected for the study.

Definition of Terms

1. Implementation: For the purpose of this study, implementation refers to the process of conducting the course in accordance with the requirements set forth in the syllabus by the Technical Examination Unit of the Ghana Education Service (GES).

2. Degree of Implementation: The study adopted Gross, Giancquinta and Bernstein (1971) definition of degree of implementation as the extent to which, at a given point in time, the organizational behavior of members conforms to an organizational innovation.
3. Core course: Refers to a compulsory course or subject designed to be studied by every student irrespective of the programme of choice.
4. Urban: A settlement which has a population of over 5,000 and has amenities such as a variety of schools (i.e. basic, secondary/ technical, vocational schools etc) pipe borne water supply, electricity, hospital or clinics, postal and banking services. Students in school of such settlement are referred to as being in urban schools (Agyeman, 1987). In the study, the urban institutes are Cape Coast Technical and Takoradi Technical Institutes.
5. Rural: The study adopted Agyeman (1987) definition of rural settlement as settlement whose population (less than 5,000) engages predominantly in the primary sector production and lacks modern infrastructure and facilities such as hospitals or clinics, variety of schools, pipe-borne water, electricity, postal and banking services. In this study the rural institutes are Asuansi Technical and Kikam Technical Institutes.
6. Entrepreneurship Education: The process of acquiring certain attitude, skills and knowledge relating to the combination of the factors of production to produce goods and services so as to earn a

living and at the same time contribute towards the economic development of a country.

Organization of Chapters

The study is organized into five chapters. Chapter one deals with the introduction, comprising the background to the study, statement of the problem, purpose of the study, research questions, hypotheses, significant of the study, delimitation, limitations of the study, definition of terms and organization of chapters. Chapter two covers the review of literature while the third treats the methodology. Chapter four provides information on findings or results of the study while the final chapter, which is the fifth, deals with the summary, conclusions, recommendations and suggestion for further study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review the relevant literature for the study on the implementation of EST course in the Ghana Public Technical Institutes as a tool for self-employment and job creation.

The review will be structured along the following sub-headings:

1. Fidelity perspective of curriculum implementation as the theoretical framework of the study
2. Factors which promote or facilitate the implementation of an Innovation
3. Factors which impede or inhibit the implementation of an Innovation
4. The nature of entrepreneurs education
5. Types of entrepreneurship education
6. Factors affecting the teaching and learning of entrepreneurship
7. Strategies adopted to promote teaching and learning of Entrepreneurship.

Theoretical Framework for the Study

The study applies a theoretical framework of curriculum implementation. Implementation is the "open use of a programme throughout an entire school system." (Lewy, 1977 p.22) Curriculum implementation, on the other hand, deals with a planned instructional programme (Tamakloe, 1992).

According to Fullan and Pomfret (1977), research on curriculum implementation had been approached from three different perspectives. These are fidelity, mutual adaptation and enactment perspective. These perspectives also describe levels of implementation or programme orientations (Snyder, Bolin and Zumwalt, 1992). The three levels constitute a continuum.

The fidelity approach and the curriculum enactment are at the extreme opposite ends of the continuum. Mutual adaptation represents a mid-point on the continuum. The three approaches have different underlying assumptions but they all relate to curriculum knowledge, curriculum change and the role of the teacher. The approaches are discussed below.

The Fidelity Perspective

The fidelity perspective, as the label implies, is concerned with the measurement of the degree to which a particular instructional programme or course is faithfully implemented as planned (Fullan, 1991). It is also used in determining the factors that facilitate or inhibit the implementation process.

Researchers of the fidelity approach or perspective view curriculum as something concrete, something that can be pointed to, something that can be evaluated to see if its goals have been accomplished (Zumwalt,1989) as quoted in Jackson, 1992). This study, therefore, assumes that the Entrepreneurship Skills Training Course Curriculum is concrete and can be pointed to, implemented and evaluated. Its degree of implementation can, therefore, be measured to find out if the implementers have faithfully followed the curriculum as planned.

The teachers, who are the implementers of the curriculum, can implement it to the letter only under certain appropriate conditions. For example, there must be clear and consensual goals, the teachers must have professional training. (Fullan, 1982) and the implementers must also attain the appropriate skills and knowledge in their subject areas (Gross, Giancquinta, and Bernstein,1971). Furthermore, the documents that specify and interpret the content of the programme or course in the syllabus, the textbooks, and the teacher's manual or guide, among others, must be readily available (Bishop, 1985).

Snyder, et al (1992) reported that a clearly defined innovation makes those charged with implementing the course or programme know exactly what to do. Thus, fidelity of the teacher to the curriculum implementation depends mostly on those conditions identified above.

In analyzing the reality in the classroom, Berman (1980) found out that minor variation is tolerated, but caution that the emphasis should clearly be on ensuring that practice conformed to the curriculum developers' intentions. When practice conforms to the developers' intentions then the degree of implementation can be measured.

The measurement of the degree of implementation with the fidelity orientation becomes necessary when there are signs of disappointing results of innovative programmes. It also becomes necessary because the mere adoption of an innovation does not guarantee full implementation (Hall and Loucks, 1976). Thus the measurement of the degree to which teachers of EST course have implemented the EST curriculum becomes necessary in the face of

continuing disappointment that trainees from the technical institutes cannot create their own jobs but still searching for white colour jobs.

The underlying assumptions of the fidelity approach to curriculum implementation relate to curriculum knowledge, change and the role of the teacher.

The advocates of this theory assume that curriculum experts primarily create curriculum knowledge outside the classroom for teachers to implement in the way the experts have decided is the best (Snyder et al. 1992). This assumption is practicable only in a centralized educational system, like that of Ghana. In such a system, the curriculum is centrally designed and distributed to teachers in the various institutions for implementation. This assumption does not therefore hold in a decentralized educational system like that of England where the teacher has every right to design his own curriculum and implement it.

The second assumption states that curriculum change is a rationale, systematic and linear process (Fullan, 1991). The third underlying assumption of the fidelity perspective relates to the role of the teacher. The role of the implementing teacher, the advocates assume, is one of a consumer who should follow the directions and implement the curriculum as experts have designed it (Snyder et al., 1992).

The degree of success of the implementation of the curriculum is therefore attributed to the degree of faithfulness or fidelity of the teacher to the way the curriculum was intended to be implemented.

Mutual Adaptation

The second approach to curriculum implementation is mutual adaptation. Mutual adaptation involves the modification of a course of study by both the developer and the implementers. It is defined as a process where by adjustments in a curriculum are made by curriculum developers and those who actually use it in the school or in the classroom context (Snyder et al., 1992).

Mutual adaptation represents a mid-point of the implementation strategies. Its scope is not, however, clear because it has no clear cut boundary with the fidelity perspective and it merges with the curriculum enactment phase.

Researchers with mutual adaptation orientation are not interested in measuring the degree to which the innovation is implemented as planned, but they are interested in studying how the innovation is adapted to suit the situational context. Researchers with mutual adaptation view curriculum as something adopted and shaped by situational context.

The advocates of mutual adaptation assumed that curriculum knowledge resides in the outside expert who develops the curriculum to be adapted by teachers to the situational context (Fullan, 1991 and Snyder, et al., 1992). It is also assumed that a true believer of adaptation considers the external source of knowledge which resides in practioners as a group or as individuals.

With regard to curriculum change, the advocates assume that change is a more impracticable and less linear process with a more active consumer at the end of the process (Snyder et al. , 1992).

According to Fullan and Pomfret (1977) those true believers of mutual adaptation view the role of the teacher as more central, because the teacher needs to help create the curriculum to suit the classroom context. The assumption under the mutual adaptation in contrast with fidelity orientation is that the role of the teacher is to shape the curriculum to meet the demands of local context.

Curriculum Enactment

The third and the last approach to curriculum implementation at the extreme end of the continuum is curriculum enactment. Curriculum enactment means "the educational experiences jointly created by student and teacher" (Snyder et al., 1992). Researchers with curriculum enactment orientation are interested in describing how the curriculum is shaped as it is implemented.

They are also interested in describing how the teacher and student, in specific settings, experience the curriculum. Teachers and students are therefore creators of the curriculum rather than primarily receivers of the curriculum knowledge (Fullan & Pomfret, 1977).

Since curriculum enactment does allow for varying degree of implementation, it is irrelevant to the discussion of the measurement of the degree of curriculum implementation. Its interest lies on the meaning that both the teacher and student give to it.

The underlying assumption of curriculum enactment also relates to curriculum knowledge, curriculum change and the role of the teacher. The advocates of this approach assume that knowledge is an ongoing process and not a product or an event (Jackson, 1992).

The advocates assume that curriculum change is a personal developmental process for both the teacher and the student. On the role of the teacher, the researchers with this perspective assume that, it is to grow even more competent in constructing positive educational experiences (Jackson, 1992). The teachers' role is viewed to be integral to the implementation process. It is both the teacher and the student who give form to the curriculum in the classroom or else there would be no curriculum (Snyder et al.., 1992).

Choice of Fidelity Perspective as Theoretical Framework

The above three models of curriculum implementations are all concerned with the implementation of an instructional programme or course. Snyder et al. (1992), argue, however, that to speak of a curriculum being 'implemented' implies there is a plan to be carried out by teachers. Researchers therefore restrict the expression curriculum implementation to the context of fidelity orientation more than mutual adaptation and curriculum enactment.

The fidelity perspective, therefore, appears more relevant to this study than the other two approaches because the core EST course, which is the object of the study, is something which is concrete, a plan or course outline to be implemented by the teacher. Hence, the extent to which the goals have been accomplished can be measured. For example, Gross et al., (1971) study of degree of implementation of an innovation in an inner city elementary school demanded "a radical redefinition of the role of the teacher" and the study was approached through the fidelity perspective. This study of implementation of EST course is similar to that study and so the fidelity approach was used as the theoretical framework for the study.

Studies on the Fidelity Perspective

The seemingly disappointing results of the implementation of instructional programmes in America and Britain in the 1970's became a critical concern for many researchers. The researchers established that those innovations that failed were those inadequately implemented. (Gross et al. 1971). They attributed the inadequate implementation of the instructional programme to lack of curiosity about what happened to an innovation from the time it was designed and from various people who agreed to carry it out to the time the consequences became evident (Fullan & Pomfret 1977, Snyder, et al., 1992).

The consequence of the concern raised by the earlier researchers brought about a variety of studies designed to ascertain the reality of the implementation of the instructional programme before declaring them successful or otherwise. Snyder et al., (1992) discovered that research on curriculum implementation was a relatively recent phenomenon because the term "implementation" was not found in the early literature.

One of the earliest and often cited studies was the one carried out by Gross, Gianquinta and Bernstein (1971) in Cambith Elementary School in New York. The study was labeled catalytic role model and it demanded a radical redefinition of the role of the teacher (Snyder et al., 1992). The study was prompted by the several reports of failed programmes designed to provide equal educational opportunities for disadvantage students.

The researchers were interested in determining the extent to which organisational members have changed their behaviour so that it is congruent with the behaviour patterns required by the innovation (Gross et al., 1971).

The programme was then handed over to the staff after it was designed. There was no resistance on the part of the implementers.

Gross et al., (1971) adopted an approach, which was both quantitative and qualitative. They analysed the necessary documents to describe the new catalytic role model. The developers of the document were also consulted. Based on these analyses and observation, instruments were developed to include twelve indicators of teaching behaviour that should be present if the teachers were really implementing the innovation. The implementation took a period of five months. They observed that the degree of implementation varied from one teacher to another.

Their findings indicated that both quantity and quality of implementation were low as the staffs were only paying lip service to the innovation. The researchers attributed the minimal degree of implementation to several factors among which were lack of clarity about the innovation, lack of skills and knowledge needed to conform to the new role model, lack of motivation and unavailability of required instructional materials.

Berman and McClaughlin (1976) conducted similar studies with the fidelity approach on four fidelity funded programme in California from 1973 to 1977, which were collectively named as 'The Grand change Agent'. The study focused on promoting change in the practices of schools through a variety of innovative practices that included classroom organisation, reading programmes, bilingual and career development programmes.

The study was divided into two phases with phase I (1973-1975) concentrated on a national survey and phase II (1975-1977) focused on the

fate of the innovation as funds run out. The instruments used were questionnaires and interviews.

After the analysis of the data gathered from respondents, it was generally concluded that there was a failure of implementation and institutionalization of innovations. Such a failure was attributed to the fact that the programme sponsors did not adequately dealt with local political and organisational circumstances (McLaughlin, 1978). Specifically, it was concluded that successful implementation was characterized by a process of mutual adaptation (McLaughlin, 1978). It was out of this study that the concept "mutual adaptation" emerged.

Hall and Loucks (1976) conducted a study that Fullan and Pomfret (1977) described as "the most sophisticated and explicit conceptualization" (p.335) of the fidelity approach in determining the degree of implementation. Hall and Loucks (1976) developed the concept of "concerns" to describe individuals' perceptions, feelings, motivation, frustration and satisfaction in the course of the implementation stages. The concerns ranged from stages Zero to Six (awareness, information, personal, management, consequences, collaboration and refocusing respectively).

The researchers developed a sample of research instrument based on the stages of concerns. Some open-ended questions requested individuals to write about their concerns.

In order to determine the level of use (LOU) of each stage of concerns, Hall and Loucks generated a list of eight levels of behaviour indicators. These levels of use ranged form level zero to seven (Non-use orientation, preparation, mechanical use, routine, reinforcement, integration and renewal

respectively). In their analysis, they correlated a focused interview with direct observation.

The findings indicated that it is only when teachers are using the innovation in a routine manner that one can confidently say that the innovation has been implanted. The implication of their findings was that the instructional programme can really and essentially be implemented when the level of use is at the routine stage.

Arthur (1999) conducted a study on the measurement of an instructional programme in the Ashanti Region of Ghana using the fidelity approach. Arthur wanted to ascertain the degree of the implementation of the Core English Curriculum. The focus of Arthur's work was on the extent to which teachers use the Core English Syllabus in planning their lessons, the extent of coverage of content areas and the extent of use of students' activities and methods of teaching. The instruments used to gather data were questionnaire which was supplemented with observation, thus making the study both quantitative and qualitative.

The findings of the study indicated that majority of the teachers did not always plan their lessons within the framework of the syllabus sent to the schools. She also found that most content areas were not adequately taught. Arthur (1999) further concluded that written exercises were less frequently assigned by majority of the senior secondary school Core English Language teachers in most of the content areas, and finally the teaching and learning strategies, suggesting high students' activities, were usually evaded.

The findings of the above studies need a critical evaluation. Gross et al., (1971) in the study of the catalytic role model, measured the degree of

implementation five months after the operation of the programme. However it takes three to five yeas before one can determined teachers level of use at the routine level, Therefore, the appropriate period for the measurement or evaluation of the degree of implementation is important (Hall & Loucks, 1982). The implementers also viewed the study as temporal one since they were not certain whether they would be reappointed as teachers to Cambith Elementary school (Snyder et al 1992). Teacher who implements a programme in such a situation may not have the boosted morale to execute the plan programme. It can therefore affect the degree of implementation.

In the measurement of the degree of implementation, the characteristics of the curriculum must be operationally defined. Berman (1981) criticized' Hall and Loucks (1976), for using weak measure of implementation, self-reports and instruments that were not based on operationally defined characteristics of the curriculum.

Arthur (1999) defined the characteristics of the syllabus to include the coverage of content areas, students' activities and methods of teaching. In her study, the characteristics of the syllabus were, however, not operationally defined because they were not clearly delineated.

It is worth noting that teachers can implement an instructional programme or course by covering a greater amount of content areas and giving out activities to students as expected. (Arthur, 1999).

The Concept of Curriculum Implementation

Curriculum implementation was operationally defined earlier in this study to refer to the carrying out or execution of the instructional programme in the schools by teachers and their students.

With reference to EST (GES/TEV 2002) the above operational definition of curriculum implementation which agrees with Lewy's (1977) view of curriculum implementation was adopted. Lewy (1977) defined curriculum implementation as the open use of a programme or course throughout an entire school system" (p.22). The reason is that, the EST syllabus for technical institutes is being implemented in all the Public Technical Institutes country-wide, including the Central and Western Region where the research was conducted.

Factors which Facilitate Implementation

Corwin (1974) in his study found out that the extent to which an innovation affects the status of users tends to influence positively the degree of implementation. He discovered that where users really see the importance of the innovation introduced, they are committed to its implementation. To put it more explicitly, it is an acknowledged fact that where there is recognition of the need for change, implementation of such innovation takes place with much success (Adentwi, 2000).

Fullan (1991) reported in his study that teachers frequently do not see the need for an advocated change. Thus the extent to which innovation addresses what are perceived to be priority needs, the greater the success of implementation. Miles (1964) discovered that the readiness to adopt an innovation is determined largely by the extent to which the innovation is seen

to meet a perceived need of the teachers. Rosenblum and Louis (1979), in their study, found out that one of the four "readiness factors" associated with subsequent implementation was the degree to which there was a formal recognition within the school system of unmet needs. Rosemblum and Louis (1979) in their studies discovered that implementation was effective when it was relatively focused or specific needs were identified.

Gross et al. (1971) revealed that teacher's knowledge and skill to conform to the new model as one of the factors which promoted implementation. Fullan (1991) discovered that the greater the sense of teacher efficacy, the greater the degree of implementation. For instance, the teachers own past and present experience, his knowledge of the subject matter, teaching skills and his abilities to conceptualize alternative procedure can influence the way he interprets the curriculum intentions. Fullan (1991) reported that some teachers, depending upon their previous experiences, are more self-actualized and have a greater efficacy which leads them to take action and persist in the effort required to bring about successful implementation.

Fullan (1982) discovered that the greater the complexity of change, the greater the degree of implementation. Berman (1980), reported that little ventured, nothing gained. Crandall (1986) also reported that the larger the scope and personal demanding of a change, the greater the chance of success.

Lewy (1977) revealed that the condition under which the curriculum was being implemented is relevant to the success of an innovation. He argued that any new curriculum becomes effective when teachers' variables as well as external variables, such as geographical location of schools, urban, rural, size

of classroom, availability of various facilities, teaching equipment and school climate, are examined.

According to Fullan (1982), the greater the quality and quantity of sustainable interaction and staff development, the greater the degree of implementation. Pre-implementation training in which even intensive sessions are used to orient people to a new programme does not work, Berman and McLaughlin (1978), reported that one-short workshops prior to and even during implementation are not helpful. Fullan (1991) discovered that no matter how an advance staff development occurs, it is when people are actually committed to implement new approaches and reform that they have the most specific concerns and doubts about the innovation. Thus, failure to realize that there is the need for in-service training during implementation may result in weak implementation of an innovation occurs becomes successful. Implementation is a process of learning something new which involves learning by doing, concrete role models, meeting with resource persons and fellow implementers in an in-service training (Louis & Miles, 1990).

Levine and Ornstein (1985) reported that innovation designed to improve students' achievement must be technically sound, manageable and feasible for the average teacher. Oliva (1992) revealed that teaching is a demanding task requiring skills that take special training. He further pointed out that teachers need to have a considerable in-depth knowledge of the subject matter and a sound background of general knowledge. Beane (1986) also reported that implementing an innovation successfully required teachers to have variety of skills and knowledge related to working with large groups,

small groups and individuals to accomplish a wide range of cognitive affective and psychomotor objectives.

Berman and McLaughlin (1977), in their study revealed that projects which have the support of the principals of institutions are the most likely to succeed. The principals action indicate whether a change should be taken seriously and to support teachers psychologically and with resources. Principals who give teachers psychological support and supply the needed resources get the teachers to implement changes with so much seriousness (Adentwi, 2000).

Factors which Inhibit Implementation

Many educational researchers have found out that inadequate implementation is a major reason why innovations introduced into educational organisations do not yield their intended outcomes. It is important that the conditions hindering implementation should be identified. Various researchers have presented different views about factors inhibiting implementation of educational programme. Hopkins (1990) reported that there is a combination of inhibiting forces at work in an educational environment, and the more these factors are known the better the innovation could be managed.

Elliot (1976) in an attempt to define the concept of implementation draws a distinction between implementation and adaptation. He discovered that adopting a proposal meant a commitment which did not necessarily, in practice, end up in implementation. The reason is that one may succeed or fail in an attempt to implement a proposal one is committed to. Pratt (1980) also reported that adaptation is the point at which users (school system, schools and teachers) express acceptance of the change and implementation is the point at

which the change is actually realized in the classrooms. He concluded that a considerable amount of time usually elapsed between the two stages.

Hopkins (1990) reported that poor psychological state of the teacher has a negative effect on the implementation process. Bishop (1985) revealed that the task involved in curriculum innovation includes changing attitudes of people. This implied that if people had negative attitude towards an innovation its implementation becomes a problem. Doll (1982) reported that teachers view an innovation with suspicion, especially when it is perceived as criticism of what they have been doing.

In an attempt to account for the failures of planned organisational change, Gross et al., (1971) found that the problem was to overcome members' initial resistance to change. In view of this, they revealed that it is impossible to bring about change under such circumstances, unless the new scheme can be shown to be advantageous. Citing Friendenberg (1965), Ornstein and Hunkins (1988), revealed that the introduction of an innovation was frequently perceived by teachers as signaling more work and requiring them to learn new teaching skills, managing new resources and acquiring new skills in inter-personal relationship without extra remuneration. Hawes (1977) reported that innovation which demanded approaches and attitudes at variance with those held by the teacher, constituted a factor for weakness in implementation.

According to McLaughlin (1976), a fit between a new programme and school needs is essential but not sufficient for implementation to occur satisfactorily. He argued that what policy makers think teachers need and perceived to be their needs are not always congruent. New or revised

curriculum guidelines may be dismissed by some teachers on the grounds that they are already doing that. Thus the extent to which policy makers are unable to identify what are perceived to be priority needs can be an impediment for maximum implementation to occur.

Aoki (1977) discovered in their study that lack of clarity about an innovation is one of the inhibiting factors of an implementation. Chatters (1973) found that when an innovation is described in global terms, it results in ambiguity, making it difficult for teachers to identify the essential features to allow effective implementation. Hall and Loucks (1982) reported that implementation problems occur because designers and policy makers do not consider implementation policies in an operational sense. Hubberman (1988) also discovered in his study that vagueness of goals and means of implementation are factors which impede effective implementation.

Fullan (1991) in his study also discovered that false clarity inhibits the success of implementation. He discovered that false clarity occurred when teachers interpreted curriculum materials in an over simplified way. For instance, an approved textbook may easily become the curriculum in the classroom and so teachers may fail to incorporate significant features of the policy or goals that it is supposed to address. Reliance on textbooks may easily distract attention from behaviours and educational beliefs critical to the achievement of desired outcomes. Hawes (1970) also identified lack of clarity about the degree of adaptation as one of the problems that contributed to weakness in implementation. Hall and Loucks (1982) suggested that since research has proved that the degree of adaptation is associated with successful implementation, it will be important for curriculum designers to clarify how

much freedom can be allowed. For instance, what essential components must be implemented, how much and in what way teachers are free to vary the use of the programme must be identified and communicated earlier in in-service programme.

According to Clark (1987), curriculum materials which were externally developed and perceived by teachers as being imposed on them resulted in lack of commitment to it by the teachers. He pointed out that this teacher behaviour was reflected in the classroom. Citing Beane (1986), he reported that it was not uncommon to find teachers removing the innovatory parts of an imposed curriculum to conform to their existing practices rather than attempting to work within the spirit of the whole.

Havelock and Hubberman (1977) discovered in their study that inadequate planning, in particular failure to take into account the nature of the system into which an innovation is being introduced, is one of the barriers to implementation. They pointed out that schools as agent tend to lag behind social change largely because the demands may be inappropriate to the divergent demands and often because the demands may be inappropriate to the organisational milieu of the school. Gross et al. (1971), revealed that incompatibility of existing organisational arrangement such as rigid scheduling of school time undermines the success of the implementation. Clark (1987) argued that more often than not curriculum designers assumed that curriculum package designed and imposed externally would be appropriate to all classrooms. However, he pointed out that those constraints as timetable, class size, and insufficient resources, resulted to ineffective implementation.

Beane (1986) discovered that time needed to implement core curriculum constitute a barrier to successful implementation and is a characteristic of core courses. They reported that the time allotted for a subject is fixed with concrete block of time within which specific activities and use of resources are carried out. Barnes (1985) also found that various activities required different length of time and they lose their effectiveness if the available time is insufficient.

Fullan (1991) discovered that most attempts on educational innovations tend to fail and failure means frustration, wasted time, feelings of incompetence and lack of support and disillusionment. Callahan, Clark and Kellough (1992) found that more teachers have had negative experience with previous implementation the more skeptical or apathetic they will be towards the next change presented regardless of the merit of the new idea or programme.

Nature of Entrepreneurship Education

It has been realized that in many parts of the world, where free enterprise system operates in the economy, entrepreneurial capabilities are critical for the economic reconstruction of the people. In view of this a number of educational institutions have directed their programmes toward this direction (Patel, 1992).

According to Katz (2003) report, entrepreneurship education has now increased worldwide. Today 2200 programmes and courses in more than 1,600 institutions, 227 endowed positions, 44 academic reviews and more than 1000 established and funded entrepreneurship centres have been established around the world (Kuratko, 2005). However he explained that numerous

espistemogical, theoretical, pedagogical and practical challenges still remain un-researched.

Entrepreneurship skills training course is a comprehensive planned activities which are carried out by institutions, agencies and a group of individuals to help train students to acquire competencies intended to lead to self-employment or make them achieve economic self-sufficiency (Plaschka & Welsh, 1990) In effect, it is to generate employment through education and training. Osero and Nkabu, (1994) found that such intervention brings about poverty reduction, employment of the youth and control of rural-urban migration.

According to Fayolle (2007), entrepreneurship has become an economic and social phenomenon, a research area and more academic and teaching subject. He reported in his study that the entrepreneurship course is now gaining much attention in a number of schools and universities worldwide.

A number of empirical studies by Solomon and Fernald (1991) found that entrepreneurship could be taught in institutions. They discovered that emphasis should be focused on what should be taught and how it should be taught because there is little uniformity in programme or course offerings. Rondstadt (1987) reported in a study that entrepreneurial activities are functions of human venture and environmental condition. As a career process, it is composed of multiple new ventures and essential skills of developing "entrepreneurial know-how". This can be enhanced by using entrepreneurs as coaches and mentors not just story tellers (Solomon and Fernald 1991).

Accordingly to Fayolle and Klandt (2006), entrepreneurship education covers a wide variety of audience, objectives, contents and methods. They discovered that there are significant differences between courses intended for management students and students with scientific, technical or literacy background. He explained that teaching entrepreneurship to individuals who are strongly committed to their venture creation project or student who have no intentions or no concrete project is very different in nature.

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Hisrich and Peter (1992) reported in their study that three elements, such as technical, managerial and entrepreneurial skills are necessary for a successful operation of an enterprise. They explained that technical and managerial abilities are skills which could be taught through vocational and managerial courses. However, the entrepreneurial ability is a behaviour which could be developed in individual who wanted to use his entrepreneurial characteristics and traits in business (Fayolle, 2003).

Timmons (1994) agreed to this and noted that students could read about entrepreneurs, talk about their experiences, think of business ideas, and develop business skills, but the real test of educating students to become entrepreneur or entrepreneurial thinker, rests in the experiences they have with risk taking, managing the results and learning from the outcomes.

A number of studies confirmed that entrepreneurship should be taught. Gorman, Hanlon, and King (1997) reported in their study that entrepreneurship education should be made more acceptable for all students as key factor to influence the learning of the course. They pointed out that entrepreneurship be made meaningful to students culturally, socially, professionally and academically. They explained that this emerged through changes in culture, work patterns, students' relationships and learning experiences in the course in a meaningful way.

Filion (1994) discovered that integrating entrepreneurship with local infrastructure and business community enabled the practical use of knowledge and concepts from the course to be achieved. It also enables access to role models for encouragements, built self-efficacy and gave real life experience of entrepreneurial and business venture for students. For instance, the Business Magnet III course offered at central high school in Louisville, Kentucky, USA, involved local banks and businesses in teaching students eight key steps to entrepreneurship. After students complete these steps, they build a scale model detailing the plans for their business start ups.

In a UK study carried out by Hardings (2003), he found that there was a growing positive attitude toward business startup with 63% of the students believing entrepreneurship as a good career choice. Hardings (2003), also identified that high income earners and more high educated individuals are more likely to become entrepreneurs, with 25-34 years old being the more likely age group. He therefore suggested in his report that the education system should encourage entrepreneurial behaviours in schools by

implementing more business-like thinking, and training entrepreneurs at early age.

According to Boyd Vozikis (1994) entrepreneurship education develops the individual's entrepreneurship spirit through their minds and actions. Education and training can also influence students' perception about entrepreneurship to enable them to better understand the roles and actions of entrepreneurs, their values, attitudes and motivations (Davidson, 1995).

Bannock (1981) discovered in his study that entrepreneurial role can be acquired culturally and experientially indirectly but can also be influenced by education and training interventions. He noted that when education is linked with desirable behavioural outcomes, close parallels can be drawn between it and entrepreneurship.

According to Garavan and O'cinneide (1994), there is a good deal of fundamental business knowledge required which can be taught in a classroom. However, there are no guiding theory to assist the would- be entrepreneurs in dealing with the uncertainties surrounding any new business ventures. This is because research on entrepreneurship education and training is sparse.

Hannon (2002) carried out a study known as "Best Procedure" project on Education and Training for Entrepreneurship and reported that training of entrepreneurship teachers is rare or takes place occasionally or on a limited basis. The report cited lack of motivation of teachers as one of the obstacles that led to the low participation in the training of teachers. The report therefore suggested that teachers teaching entrepreneurship should be trained and motivated to bring the concept of entrepreneurship into the classrooms. He concluded that there is a significant shift in culture, and as such

entrepreneurship has now been recognized world wide as an important course to be taught. However, it still lacked a coherent structure and when that continued it would prevent students from taking part in entrepreneurship courses.

Another study carried out by Hannon (2005) showed that participation in entrepreneurship increased education participation, perceived desirability and feasibility in high school students. The report stated that effective teaching and learning of entrepreneurship led to the creation of potential entrepreneurship as a career option. The report suggested that teachers should encourage students with low entrepreneurial experiences to achieve significant changes in perception and attitude towards students offering the course. Vesper and Macmillan (1989) suggested that entrepreneurship education should be created as an independent academic discipline through the development of theory.

Types of Entrepreneurship Education

Recent literature highlights the existence of four main types of entrepreneurship education and training programmes and courses for entrepreneurs. The types are:

Education and training for small business ownership: This type of training provides practical help in making the change from ordinary employment to self-employment. This provides instruction on finance, legal regulations, taxation, premises, simple accounting, employment and marketing problems (Gibb, 1993). According to Vesper (1982), those who come on to such programme or course are usually highly enthusiastic and receptive. Gibb

(1996) discovered in his study in 1981, a number of problems associated with this programme or course such as differences in perception about what start-up programme course should ideally contain between teachers and business owners, and the length of the course or programme as disturbing.

Entrepreneurship Education: This type of education focuses on the creation of new economic entities centered on a novel product or services. According to Vesper (1982), this type of education has political attraction and the possibility of training students or trainees in secondary and tertiary levels for self-employment.

Continuing small business education: This type of entrepreneurship education and training is designed to enable people to enhance and update their skills. According to Garavan and O'cinneide (1994), this form of training is available through many business schools in the form of one-day training modules. He explained that it is more difficult to organise than the conventional start-up courses or programmes and it is too generalised for the needs of small business owners.

Small Business Awareness Education: This form of education and training is aimed at increasing the number of people who are sufficiently knowledgeable to consider entrepreneurship as a career alternative. Vesper (1982) discovered in his study that most of this type of course creates or awareness of the small firm and provide trainees with basic information on the setting-up and running a business.

Factors Affecting the Teaching of Entrepreneurship

There are many factors that have been identified to have affected the teaching and learning of entrepreneurship education. Dainow (1986) reviewed

a number of factors in his 10 year educational research on entrepreneurship and summarized them as follows:.

1. Lack of knowledge and understanding of student intentions, aspirations and propensity.
2. From the perspective of the delivery of entrepreneurship education, there appears to be lack of sufficient entrepreneurship educators and understanding of their developmental needs.
3. Lack of access to funding for students to start their business. Trainees/graduates who consider self-employment as option or wanted to start new business could only access limited range of general support.
4. Lack of relevant role models – Most successful entrepreneurial role models are diagonally opposite to the students, uneducated, untrained, unsupported and very rare; they are usually antagonistic towards the educational system or government support and claimed they have graduated from the "University of Life".
5. Inadequate resource materials for both students and their teachers.

According to Garavan and O'cinneide (1994), entrepreneurship courses or programmes are frequently of very short duration in the classrooms compared to other educational courses or programmes. Gibb (1996), found in his study that most small 'entrepreneurship courses or programmes currently lasts as little as a few days though few extend over longer periods. He explained that the length of these courses or programmes seems absurd when set against the knowledge and complexities of the task of successfully training students pursuing this course or programme.

Curran and Stanworth (1989) reported in their study that many entrepreneurial students were specialists within a particular field of study but tended to have a poor grasp of the skills and knowledge in entrepreneurship. They explained that this problem could discourage trainees from learning the course.

Gillin (1991) in his research study, noted some factors that affect the teaching and learning of the entrepreneurship course which included: (i) the differing perceptions of teachers and potential small business owners on what start-up programme should ideally contain; (ii) deficiencies in many current start-up programmes; (iii) the short periods assigned to entrepreneurship course or programmes; and (iv) too wide a content within a single programmes or course by trainees (teachers).

Gautman (2007) identified the following in his study in India as affecting the implementation of the entrepreneurship training in the classrooms. These included:

1. Non availability of various inputs such as infrastructure support, instructional materials such as textbooks, manuals, and personnel to handle the course and a very low local support to the institutions
2. Training institutions do not have much concerned for clear objective identification and selection of topics for the trainees.
3. Ill-planned training methodology, inconsistency in course or programme designs, its sequence and theme and the focus of the course or programme not much clear.
4. Incompetence and poor management of entrepreneurship teachers.

5. Majority of institutions engaged in the entrepreneurship courses or programmes are themselves not convinced of what they are doing as the task is delegated by the government. As a result, the social objectives aimed at are not much achieved.
6. Ambiguity in the objectives of entrepreneurship courses or programmes resulting in significant deterioration terms of content and interest.
7. Absence of an appropriate industrial and commercial climate coupled with lack of information and access to relevant technology has acted as a great handicap.

Gartner and Vesper (1994) also identified the following in their study as affecting teaching and learning of Entrepreneurship.

1. Lack of students awareness of entrepreneurship
2. Lack of students' intentions, propensity to act due to general lack of inclination, attitude and desirability towards entrepreneurship.
3. Lack of students developmental needs.
4. Lack of relevant skills amongst students which include managerial, financial, sale/marketing, technical skills and market knowledge and research skills.

Patel (1992) in his study, revealed lack of credit support, insufficient time and inadequate policy measures to support and appreciate the course.

According to Gibb (1993), the major challenge of entrepreneurship education and training is the appropriateness of curricular and training programmes for preparation for learning in the outside world. He therefore suggested that the inadequacies of many of the existing approaches had

already been challenged by providers of training in the management arena so a coherent curricular and the teaching programme and strategies need to be adopted.

Strategies Adopted to Promote Teaching and Learning of Entrepreneurship

A critical study of the literature revealed that governments, nongovernmental agencies and international agencies are finding ways of improving the teaching and learning of entrepreneurship training to reduce unemployment among the youth. This, in effect, is intended to improve the quality of life of the trainees. (Rao et al, 1900).

Gorman, Hanlon and King (1997) in their study reported that teaching entrepreneurship required systematic collection and analysis of data and more robust methodologies. Filion (1994) revealed in his study that high school is the most determinant level of the development of young peoples' entrepreneurial potential and attitude, and at the secondary schools, there is the need to identify and evaluate students' entrepreneurial potentials.

According to Carrier and Hindle (2007), there are wide ranges of pedagogical methods, approaches and modalities used in teaching entrepreneurship. These methods include:

1. Interviews with entrepreneurs
2. Videos and films
3. Behavioural simulations
4. Traditional lectures
5. Elaboration or evaluation of business plans by students
6. Development of new venture creation projects

7. Guidance of young entrepreneurs through support missions to help in their projects.

Solomon and Fernald (1991) in their study reported the following strategies as very important to the teaching and learning of entrepreneurship:

ii. Interactive learning

iii. Experienced-based learning

iv. Use of entrepreneurship role models

v. Linking the school with the business world.

According to Garavan and O'cinniede (1994), for entrepreneurship teaching and learning to be effective, the teacher needs to employ different learning styles such as concrete experience, reflective observation, abstract conceptualization and active experimentation. He explained that a deficiency in active experimentation may lead to an inability to an inability to formulate plans, whiles a deficiency in active experimentation may lead to an inability to implement the plans.

Sexton and Upton (1987) in their study also reported that a teaching approach which requires the instructor to act as a learning facilitators should employ the extensive use of learning exercises such as role play, management simulations, structured exercises, feedback in which participants must take active role, and discussing groups to develop hypotheses to be tested.

The summary of the findings of the studies carried out in the United Kingdom (UK) by Hannon (2005) listed the following strategies:

1. Teachers should raise and inspire students' desirability and engagement by working and supporting them to take the lead and by

using resources such as television (TV), web/internet, organizing competitions and prizes.

2. Change perceptions of individual students at all levels in education and organisation to gain greater respect of entrepreneurship and its value in education and social value.
3. Identify and recognize promising and critical activities that enhance students' entrepreneurship and stimulate pilots that experiment, innovate and impact on students entrepreneurs.

According to Gibb (1993), it should be possible not to abandoned some of the basic values in teaching entrepreneurship but encourage students to cope in new ways with the real world. He therefore suggested the approaches listed below as method for improvement.

1. learning by doing
2. encouraging trainees to find and explore under concepts relating to a problem from a multi-disciplinary view point
3. helping trainees to develop emotional responses when dealing with conflict situations and making choices and commitments to action in stress and uncertainty conditions.
4. helping trainees to develop more independence from external sources of information and expert advice.
5. providing greater opportunity for building up networks and contracts in the outside

Fayolle (2005) in his study reported that "learning by doing" which is often praised by teachers in the field is well suited to some pedagogical situation but may be particularly inappropriate in others. He suggested that

teachers must not use only one method in teaching entrepreneurship since a little research has only been conducted on the assessment of entrepreneurship teaching.

According to Carrier and Hindle (2007), there is no universal pedagogical recipe to teach entrepreneurship. They explained that the choice of technique and methods depends mainly on the objectives, content and constraints imposed by the institutional context.

Summary

The chapter presents a theoretical framework used for the study and the related literature review. The fidelity approach for curriculum implementation proposed by Fullan and Promfret (1977) was adopted as the theoretical framework for the study. This theory propose that the degree of success of the implementation of the curriculum is also referent to the degree of faithfulness or fidelity of the teacher to the way the curriculum was intended to be complemented.

To this end the literature review focused on the success of a programe implementation. The literature identified factors that facilitate implementation. This include clarity of the objectives of the course, preparation of the teacher in terms of his/ her skills and knowledge of the subject matter, motivation, positive attitude towards the innovation and commitment.

On the other hand, the buriers to successful implantation of a programme or course are poor psychological state of the leader, resistance to change, inadequate planning, inadequate instructional periods and lack of instructional resources constitute barrier to successful implantation of the EST,

course. Finally, some challenges facing the teaching and learning of the EST course and how to overcome these challenges were discussed in the chapter.

CHAPTER THREE

METHODOLOGY

This chapter discusses the methods and techniques used in the study. The chapter discusses and explains the research design, population, sample and sampling procedures used for the study. The research instrument, its validation, data collection and analysis.

Research Design

The descriptive survey, involving the use of questionnaire as the main tool for data collection, was used. In addition, institutional observations were also conducted.

Descriptive survey is concerned with collecting data to answer questions or to test hypotheses concerning the present status of the subjects of the study (Gay, 1987). Ary, Jacobs and Razavieh (1990) also described descriptive research as studies designed to obtain information concerning the current status of the phenomena. It is directed toward determining the nature of the situation as it exists at the time of the study. Thus, the aim is to describe what exits with respect to variables or conditions in a situation.

A descriptive survey can either be a sample or a census survey. The census survey is where an attempt is made to acquire data from each and every member of the population. This can be done when the elements of the population are accessible. On the other hand, in a sample survey, information is collected on representative members of a population and some generalizations are made about the population.

The descriptive survey is mostly preferred in educational research, because, to study a whole population which is usually large in educational research would be impracticable, if not impossible.

Thus, a descriptive survey becomes appropriate when attempt is made by a researcher to describe certain aspects of a large population by sampling individuals to complete a questionnaire or respond to interviews. This affords the opportunity to make generalization about a population based on the responses of the representative sample drawn from the population. It is for the above reasons that the description sample survey was adopted for the study.

Population

The target population for the study was made up of the teachers teaching EST and the final year intermediate students in public technical institutes in the Central and Western Regions of Ghana. These technical institutes are Cape Coast Technical, Asuansi Technical, Takoradi Technical and Kikam Technical Institutes. The public technical institutes were purposively selected because of easy accessibility, familiarity and because they have all the characteristics of Ghana public technical institutes (urban and rural) to offer the needed information for the study.

Cape Coast Technical Institute, in the Cape Coast Municipality and Takoradi Technical Institutes, in the Sekondi Takoradi Metropolis are classified as urban institutions because Cape Coast and Takoradi have a population of more than 5,000 in each case.

According to the 2000 population census in Ghana, Cape Coast Municipality had 82,291 and Takoradi Metropolis has 54,772 inhabitants. On

the other hand, the other two technical institutes, Asuansi Technical Institute in the Central Region and Kikam Technical Institute in the Western Region are classified as rural institutions because Asuansi and Kikam have population of 1,212 and 2,884 respectively (Statistical Service, 2000).

The teachers were involved in the study because they are the implementers of the EST course of which they play a vital role for its success or failure. The Principals were included in the study because of the important role they play as administrators in supporting the innovation. However, due to large students population in the four institutes, it would have been time consuming and costly to include all the various levels or classes. Hence, it was decided to limit the study to only the final year intermediate students. These categories of students were considered to have used the EST syllabus and would, therefore, be in position to give their views on the extent of its implementation.

The total population for the study, as reported in Table 1, was 1008 comprising 50 EST teachers and 958 final year intermediate students from the four public technical institutions namely; Cape Coast Technical, Asuansi Technical, Takoradi Technical and Kikam Technical Institutes.

Table 1

Distribution of population

Institution/location	Teachers	Students	Total Population Teachers + Students
Cape Coast Tec. (Urban)	13	428	441
Asuansi Tech. (Rural)	15	173	188
Takoradi Tech (Rural)	11	204	215
Kikam Tech (Rural)	11	153	164
Total	50	958	1008

Sample and Sampling Procedure/Method

Table 2 shows the distribution of the sample used for the study. The simple random sampling method was employed to select 20% of the final year intermediate students from each of the four public technical Institute selected for the study. Out of the total population of 958 final year students, 20% or 193 were selected. The use of 20% of the population as sample is based on the suggestion by Ary, Jacobs and Razaviel (1990) that a sample of 10 to 20% of the total population is enough to generate the confidence in data collected when using survey research design.

Table 2

Distribution of sample

Institution/location	Teachers	Students 20% Pop.	Total sample
Cape Coast Tec. (Urban)	13	86	99
Asuansi Tech. (Rural)	15	35	50
Takoradi Tech (Rural)	11	41	52
Kikam Tech (Rural)	11	31	42
Total	50	193	243

These students were randomly selected using the table of random numbers. A sample frame for each department in the study (the register) which contains the names of final year students from each department of each institute was obtained from the form masters. The name of each student in the register was numbered according to the order it appeared.

The table of random numbers (Neuman, 2000, pp.472) was entered randomly moving vertically to select the appropriate number that fell within the sample frame of the department until 20% of the population was selected for the study in each institute. Only specific names which correspond to the number on the table constitute the sample for the study. This process was repeated until the sample size of each institute was obtained. The overall sample size for the students therefore was 193 as shown in Table 2.

In the case of the EST teachers, all the 50 in the population were included in the study because the population was small. This is based on the suggestion made by Nwana (1993) that where the population size is small (less than 50) the entire population is studied. Therefore, the total number of teachers and students used as the sample for the study is 243 as shown in Table 2.

Research Instruments

The study was aimed at finding out whether the demands of the core EST syllabus for public technical institutes, as prescribed by the Technical Examination Unit of the Ghana Educational Service (GES), are adhered to with respect to its implementation. In order to achieve this aim, two sets of questionnaires were used as the major instruments in the study. In addition, the observation technique was used to cross-validate the data obtained through the use of the questionnaires.

Fullan and Pomfret (1977) identified observation techniques, focused interviews, questionnaire and content analysis as the main methods or instruments for studying degree of implementation. However, owing to the relatively limited time and financial constraints, as well as the scattered nature of the subject involved in the study, the researcher found it appropriate to use the questionnaire and observation and left out the use of interview.

The questionnaire, as a research tool may have its own problems because it is not uncommon to detect a discrepancy between an actual implementation and reported implementation. The questionnaire could be an effective tool to assess users' knowledge and perception of the characteristics and strategies of an innovation when it contains both open and closed ended questions.

Furthermore, as observed by Fullan and Pomfret (1977) while the use of observational technique represents the most vigorous measurement of degree of implementation of an innovation, the method is not devoid of some problems. For example, the presence of the observer can affect the quality of performance of the subjects being studied.

In conclusion, two sets of questionnaires were designed by the researcher as the main instruments to solicit information from the final year intermediate student and the EST teachers.

Guide for Observation

The researcher also carried out observations on the teaching and learning activities of the teacher and students during EST classes using a guide for observation prepared by the researcher. The purpose of the observation was to cross-check some important information provided by the EST teacher and the students from the four technical institutes in the study.

Questionnaire for Students

The questionnaire for students consisted of a total of 43 items, divided into six sections. Section A contained four items which sought to obtain the background information of the students. Section B contained five items which sought to find out students' clarity of the characteristics of the EST course with regards to the rationale, objectives and other features of the syllabus. This section was designed on a four point rating scale, with responses of Very Much, Much, Not Much and Not at All.

Section C of the questionnaire consisted of eight items which aimed at collecting information on the extent to which the instructional organization and practices were compatible with the EST syllabus which is a competency based syllabus. This section dealt with the extent to which teachers were applying the requirements of the syllabus and it was designed on a four point rating scale of Very Often, Often, Sometimes and Never. Section D consisted

of 10 items which deal with the teaching strategies employed by the teachers and it was designed on a four point rating scale of Very Much, Much, Not Much, Not at All.

Section E of the questionnaire consists of nine items which were meant to obtain information on the extent to which facilities and instructional resources, required for the course, were available in the institutes. This was also designed on a four point rating scale as Strongly Agree, Agree, Disagree and Strongly Disagree. The last section F had seven items designed to solicit information from respondents on the extent to which student considered the EST to be relevant to their future career.

An open-ended question was also designed to allow respondents to comment on the nature and delivery of the EST course and also to state any suggestion for improving the implementation of the EST course.

Questionnaire for Teachers

This questionnaire was prepared for the EST teachers. The questionnaire for the teachers had six sections containing a total of 62 items.

Section A**:** contained eight items for gathering information about the background of the respondents.

Section B**:** contained 13 items which sought to find out teachers' perception of the characteristics of the course such as rationale, objectives and demands of the syllabus and to indicate how clear these to them were. This section was in two parts and it was designed on a four point rating scale. The responses for part one were Very Much, Much, Not Much, Not at All and the responses for part two were Strongly Agree, Agree, Disagree, Strongly Disagree.

Section C**:** of the questionnaire; consisted of 18 items meant to obtain information on the extent to which the instructional organization and practices were compatible with the competency based EST syllabus. This section had two parts. Part 1 dealt with the extent to which the teachers use the syllabus; Part 2 deals with the extent to which the teachers employed the recommended teaching strategies. All items in this section were designed on a four point rating scale of More Often, Often, Sometimes and Never for part 1 and responses for part 2 were Very Much, Much, Not Much and Not at All.

Section D**:** consisted of eight items meant to obtain information on the extent to which facilities and other instructional resources, required for the course, were available. This was designed on a four point rating scale, namely Strongly Agree, Agree, Disagree and Strongly Disagree.

Section E: contained seven items which demanded the respondents to indicate the extent to which organization factors, such as class size and time allotted to teaching affected the successful implementation of the EST course in the public technical institute. This was also designed on a four point rating scale of Not Very Seriously, Not Seriously, Seriously and Very Seriously.

Finally Section F of the questionnaire contained seven items meant to obtain information on the extent to which teachers considered the EST course to be relevant to the future career of the students. This section was designed on a four point rating scale of Strongly Agree, Agree Disagree and Strongly Disagree.

An open-ended question was also designed to allow respondents to comment on the nature and delivery of the EST course and also to state any suggestion for improving the implementation of the EST course.

Validity of the Instruments

To ensure content validity of the instruments, appropriate processes were undertaken to design the instruments. The questionnaire items for measuring the degree of implementation reflected the suggested competency based EST syllabus. An extensive use was also made of the relevant literature to identify factors affecting implementation of an innovation. The validity processes included vetting of the items by the supervisors and experts in the Department of VOTEC and pre-testing of the questionnaires in a comparable institute.

Pre- Testing

A pre-testing of the questionnaire was undertaken at Tema Technical Institute by the researcher to ascertain the reliability of the instrument. Only one instrument was used for both teachers and students and the only differences was the background information of teachers and students and factors affecting implementation. The reliability coefficient of the pre –testing of the instrument using the split – half method was 0.75 and it is satisfactory enough for the items to form a composite. The questionnaires were responded to by 40 sampled students and five teachers teaching EST Tema Technical Institute was selected because, though it is an urban technical institute, it has similar characteristics as those institutes selected for the study.

A discussion was held between the researcher and the respondents concerning the purpose of the study. The number of question items was reduced form the initial 75 to 62 for the teachers and 55 to 43 for the students by fusing related ones. Ambiguous questions were modified and appropriate ones done with.

The pre-testing was to ascertain the interpretation and consistency of the instrument to be used for the main study. It also helped to establish the face validity of the instrument and opportunity to revise the questionnaire.

Again, the pre-testing gave the researcher the opportunity to ensure that the revised items yielded the desired information and know what the results of the main study were likely to be. Problems that were likely to be encountered in the conduct of the main study were also detected through this pre-testing.

Data Collection

The administration of the questionnaire begun in November 2008 to January 2009. A letter of introduction was collected from the Head of Department of the Vocational and Technical Education (VOTEC) University of Cape Coast (UCC) to enable the researcher to be permitted and considered for the administration of the questionnaire and the observation.

The edited copies of the questionnaire were administered to the four public technical institutes offering the EST in the Central and Western Regions of Ghana. These public technical institutes were Cape Coast Technical Institute, Asuansi Technical Institute, Takoradi Technical Institute and Kikam Technical Institute.

Copies of the questionnaires were serially numbered and differentiated between teachers and students as well as the institutes. The numbering system which was used to identify the questionnaire for the four selected public technical institutes for the study.

In all the public technical institutes that were visited, permission was sought from the Principals and where the Principal was not around the Vice-Principal (academic) gave the permission. The researcher was later introduced to the EST Coordinators who assisted the researcher in the administration and collection of the questionnaire as well as arranging for the observation.

The questionnaires were sent personally by the researcher to ensure that they were administered to the right respondents. At the beginning of the administration of the questionnaires the researcher often left the questionnaire with the respondents after guiding them. Assurance was given that the researcher could call in a couple of days for the collection of the completed questionnaire.

However, in many instances the questionnaires were not ready during the stated period. In some few cases the questionnaire could not be traced and the researchers had to issue out new ones.

Owing to this problem encountered in all the four institutes, a new strategy was adopted by waiting for the respondents to complete the questionnaires. Out of the 50 copies of questionnaires administered to teachers only 43, representing 92% were received. In the case of the students 193 copies were administered but only 161 representing 83% were retrieved. The EST Coordinators also assisted in the collection of the completed questionnaires.

Data Analysis

The completed questionnaires were first edited for consistency. For the open ended items, a short list was prepared from a master of responses in

order to get the key responses given by respondents. These responses were listed in percentages according to groups of respondents, teachers and students.

All scoring key for the various responses to the questions on the four point Likert scale were prepared by the researcher on a broad sheet before being fed into the computer for analysis, using the statistical package for Social Sciences (SPSS).

The responses of the questionnaire were assigned numerical values as follows:

Not at all / strongly Disagree / Never / Not Seriously	-	1
Not Much / Disagree / Sometimes / Not very seriously	-	2
Much / Agree / Often / Seriously	-	3
Very Much / Strongly Agree / Very Often / Very Seriously	-	4

The descriptive statistics were used to analyze the data because of the descriptive nature of the study, using the Statistical Package for Social Sciences (SPSS) The data was presented mainly in tables of frequencies, percentages and weighted means and critically interpreted to answer the research questions.

The independent sample t–test statistics was used to determine whether there were any statistically significant differences between the two main groups of respondents; teachers and students on the three null hypothesis stated, namely;

1. There is no significant difference between the teachers and the students about the clarity of the objectives and the requirements of the EST course.

2. There is no significant difference between the teachers and the students' perception with regard to the availability of facilities and material resources for the implementation of the EST course.
3. There is no significant difference between the teachers and the students' perception with regard to the relevance of the EST course.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter presents results of the data for the study on the implementation of the Entrepreneurship skills Training (EST) course for the public technical institutes in the Central and Western regions of Ghana.

The specific areas covered in the data analysis include:

1. Clarity of the objectives and characteristics of the EST course to the teachers and students.
2. Teachers preparation, knowledge and skills for teaching the course
3. Institutional organisation and practices
4. Availability of facilities and instructional resources for the EST course.
5. The factors affecting the implementation of the EST course and
6. The perceived relevance of the EST course.

In addition to answering the research questions, open comments by the respondents were analysed and three hypotheses were also tested. The independent sample t-test statistics was used to determine whether there were any statistically significant differences between the two groups of the respondents: teachers and students.

Background Information about the EST Teachers

Professional Status of the Respondents

Table 3 shows the responses of teachers regarding their professional status.

Table 3

Professional Status of the EST Teachers Respondents

Institution	Trained	Untrained (%)
CCT	10 (83)	2 (17)
AT	9 (64)	5 (36)
TT	10(100)	0 (0)
KT	5 (71)	2 (29)
Total	34 (79)	9 (21)

From Table 3, out of the total 43 EST teacher respondents of the four technical institutes, 34 respondents, which represent 79 %, were professional teachers. This implies that majority of the teachers teaching EST in the four public technical institutes were professional trained teachers. From an observation carried out in the four institutes, all the four teachers who were observed teaching EST were professional teachers.

Highest Academic Qualifications of the Teacher Respondents

The academic qualifications of the teacher respondents are reported in Table 4.

Table 4

The EST Teachers' Highest Academic Qualification by the Institute

Institution	Academic Qualification of Teachers				
	Adv. Craft CERT.	Tech. III	HND	B.ED	Master
CCT	2 (17)	4 (33)	1(8)	4(33)	1 (8)
AT	4 (29)	5(36)	2 (14)	3 (21)	0 (0)
TT	3 (30)	3 (30)	1(10)	3 (30)	0 (0)
KT	3 (43)	1(14)	1 (29)	2 (14)	0 (0)
Total	12 (28)	13(30)	5 (12)	12(28)	1 (2)

KEY: CTI: Cape Coast Technical Institute, ATI: Asuansi Technical Institute
TTI: Takoradi Technical Institute, KTI: Kikam Technical Institute

Table 4 reveal that 12 (28%) of the 43 teacher respondents possessed the Advance Craft Certificate, 13 (30%) had the Technicians Part III Certificates, 5 (12%) had the Higher National Diploma, whiles another 12 (28%) possessed the Bachelor Degree. Only one respondent had a Masters Degree.

The findings show that only 18 (42%) of the EST teachers had tertiary education qualification. This implies that less than 50% of the teachers had the requisite background to teach the EST course because, in the current educational system of Ghana, entrepreneurship as a course is offered in tertiary education programmes. This suggests that there are inadequate qualified trained EST teachers to teach the course.

Teaching Experience in EST Course by the Respondents

Table 5 shows the responses of the respondents regarding their teaching experiences.

Table 5

Teaching Experience in EST Course by the Teachers

	Number of years of Teaching EST					
Institution	One	Two	Three	Four	Five	Over five years
CCT	4(33)	1(8)	3(33)	1(8)	1(8)	1(8)
AT	6(43)	1(7)	5(36)	1(7)	1(7)	0(0)
TT	3(30)	2(20)	4(40)	0(0)	1 (0)	0(0)
KT	2(29)	1(14)	2(29)	2(29)	0(0)	0(0)
Total	15(35)	5(12)	15(35)	4(9)	4(7)	1(2)

KEY: CTI: Cape Coast Technical Institute, ATI: Asuansi Technical Institute TTI : Takoradi Technical Institute, KTI: Kikam Technical Institute

The data in Table 5 reveal that majority (35 or 81%) of the teachers had less than four years teaching experience as EST teachers. This suggests that the teachers may not have adequate experience for successful implementation of the course. This conclusion is based on findings reported by Fullan (1991), that the teacher's own past and present experiences, his/her knowledge of the subject matter, teaching skills and abilities to conceptualize alternative procedure can influence the way he interprets curriculum intentions. He further intimated that some teachers, depending upon their previous experiences, are more self actualized and have greater efficacy leading them to take action and persist in the effect to bring about successful implementation.

Type(s) of EST Training Undertaken by the Teachers

The responses of the teachers to the type of entrepreneurship training they had undertaken are reported in Table 6.

Table 6

Teachers Response Regarding the Type(s) of EST Training Undertaken

Institution	Academic Qualification of Teachers				
	Formal programme	Formal INST. Course	GES INSET in extrop.	Self training from bks of library	Other training enterp.
CCT	1 (8)	5(42)	3(25)	2(17)	1 (8)
AT	0 (0)	7(50)	3 (22)	2 (14)	2 (14)
TT	0 (0)	4 (40)	3(30)	1 (10)	2 (40)
KT	0 (0)	2(29)	3 (42)	2 (29)	0 (0)
Total	1 (2)	18(42)	12 (28)	7(16)	5 (2)

KEY: CTI: Cape Coast Technical Institute ATI : Asuansi Technical Institute TTI: Takoradi Technical Institute KTI: Kikam Technical Institute.

As shown in Table 6, 19 (44%) of the 43 respondents had knowledge in entrepreneurship through formal institutional courses and programmes whiles 24 (56%) of the respondents had their training through GES in-service training and other self training, including library self readings. Therefore, 56% of the teachers may lack adequate skills and knowledge of the subject matter needed to teach the course effectively and this may not lead to successful implementation of the EST course.

The Need for Training in Entrepreneurship

Teachers were requested to indicate whether they need training in entrepreneurship. The responses are reported in Table 7.

Table 7

Respondents Requesting for Training in Entrepreneurship

Institution	Training in entrepreneurship	
	Yes (%)	No (%)
CCT	10 (83)	2(17)
AT	11 (79)	3(21)
TT	8(80)	2(20)
KT	7(100)	0 (0)
Total	3(84)	7 (16)

KEY: CTI: Cape Coast Technical Institute ATI: Asuansi Technical Institute TTI: Takoradi Technical Institute KTI: Kikam Technical Institute

From Table 7, 36 (84%) out of the 43 respondents stated that they need training in EST whiles only seven (16%) stated otherwise. This implies that majority of the teachers realized that they need additional training in entrepreneurship to be able to teach the EST course effectively.

Respondents Reasons for Additional Training

When respondents were asked to state the type or nature of training they need as well as to state reasons why they need the training, they indicated two main types of training with two reasons as shown in Tables 8 and 9.

Table 8

Type(s) of Training Required by Teachers

Institution	Type(s) of EST Training needed	
	GES Training in entrepreneurship	Formal Institutional course
CCT	10 (83)	2(17)
AT	11 (79)	3(21)
TT	8(80)	2(20)
KT	7(100)	0 (0)
Total	3(84)	7 (16)

KEY: CTI: Cape Coast Technical Institute ATI: Asuansi Technical Institute TTI: Takoradi Technical Institute KTI: Kikam Technical Institute.

From Table 8, (36 or 84%) of the respondents stated that they need GES Training while seven, (16%) stated that they need formal institutional course in tertiary institution. This implies that the EST teachers have the desire to attend workshops and other in-service training in entrepreneurship.

The two main reasons given by the respondents for the need of further training are shown in Table 9. From the table, 34 (79%) of the 43 respondents stated that they need the EST training so that they will be well equipped with the skills and knowledge of the subject matter of the course. The remaining nine, (21%) stated that they need the training so that they could improve upon their teaching methods and strategies. The findings suggest that the EST teachers are of the view that they need additional skills and knowledge of the subject matter of the EST course. According to Fullan (1992), the greater the quality and quantity of sustainable interaction and self development of the teacher the greater the degree of implementation.

Table 9

Reasons why Respondents Need Training

Institution	Reasons	
	To acquire knowledge in entrepreneurship (%)	To improve upon teaching methods and strategies (%)
CCT	9(75)	3(25)
AT	11 (79)	3(21)
TT	8(80)	2(20)
KT	8(86)	1 (14)
Total	34(79)	9 (21)

KEY: CTI: Cape Coast Technical Institute ATI: Asuansi Technical Institute TTI : Takoradi Technical Institute KTI: Kikam Technical Institute

Clarity of the Objectives and Requirement of the EST Course

The respondents were asked to indicate the extent to which certain aspects of the EST syllabus are clear to them. Weighted mean scores below 2.50 were considered to indicate that the aspect is not clear to the respondents and mean scores from 2.50 and above were considered to indicate that the aspect of the syllabus is clear to the respondents.

Four items on the questionnaire were used to determine the extent to which the teachers and the students were clear about the purpose and objectives of the entrepreneurship course. The responses are presented in Table 10. See Appendix C for full table.

The weighted mean scores of the teachers and the students on the clarity of the purpose of the EST that "it is to reduce unemployment" were 3.02 and 2.88 respectively. Thus, both the teachers and the students had clear

understanding (Wm > 2.50) that the purpose of the EST course in the technical institute is to improve employment capacity the graduates.

Similarly, the weighted means responses for the teachers and students on all the three stated objectives of the EST course were above 2.50, indicating that both groups were clear about the objectives to be achieved with the EST course in the technical institutes. The results imply that both groups have interest in the course and also are committed to it, suggesting a possible successful implementation.

Table 10

Responses of the Respondents about Clarity of objective of EST Course

Purpose and Objective of the EST Course	Extent of Clarity to Respondents	
	Teachers Wm	Students Wm
To reduce unemployment	3.02	2.88
Develop entrepreneurship and employment skills	3.37	3.34
Promote awareness of the world of work	3.02	2.80
Encourage self employment as viable wage employment	3.23	3.15

KEY 4 = Very much clear (W) = Weighted responses
3 = Much clear Wm = Weighted mean
2 = Not clear
1 = Not at all clear

Respondents Knowledge of the Requirements of the EST Course

Respondents in the study were requested to indicate the extent to which they are familiar with the requirements of the syllabus of the

entrepreneurship skills training course for the technical institutes. Three items on the questionnaire were used to assess the respondents' knowledge and familiarities of the syllabus. The responses are reported in Table 11.

Table 11

Respondents Knowledge of Requirement of the EST Course

Aspect of the EST Course	Respondents knowledge of course Characteristics	
	Teachers Wm	Students wm
(1) students activities	2.93	2.80
(2) Notes and suggestions	2.74	2.81
(3) Topics and competencies	2.74	2.84

KEY 4 = Very much
3 = Much
2 = Not much
2 = Not at all

(w) = Weighted responses
Wm = Weighted mean responses

The weighted means responses for the teachers and the students on the clarity of the activities undertaken by students were 2.93 and 2.80 respectively. Thus both the teachers and the students had clear understanding of, the activities to be undertaken by students. This implies that there is no ambiguity in the syllabus on the activities to be undertaken by students. This result suggests the likelihood of implementation.

The weighted mean responses for the teachers and the students responses on clarity of the notes and suggestion teachers stated in the syllabus were 2.74 and 2.81. The results indicate that both the teachers and the students

have a clear understanding of the notes and the suggestions to teachers which are stated in the EST syllabus.

The weighted mean responses for the teachers and the students on the clarity of the topics and competencies stated in the syllabus were 2.74 and 2.84 respectively. It means that both the teachers and the students had clear understanding of the topics and the required competencies stated in the syllabus since the mean scores were above 2.50. What can be deduced from the findings is that both the students and, the teachers find the topics to be unambiguous and therefore, teaching and learning become meaningful and effective.

The Characteristics of the EST Course

The respondents were asked to indicate the extent to which they agree with the statements that describe the characteristics of the EST course. The responses of the teachers are presented in Table 12.

From table 12, the weighted mean responses of the teachers, as to whether the EST syllabus content is overloaded is 2.30. The teachers disagreed to the statement that the syllabus is overloaded because the mean score is less than 2.50.

The weighted mean score of the teachers' responses was 2.53 for the statement that the there are identified experiences which were unfamiliar to students. This means that the respondents are of the view that some identified experiences in the syllabus are unfamiliar to the students.

A weighted mean score of 2.98 was recorded for the teachers' responses on whether the teachers' background knowledge and skills assumed for the syllabus are not appropriate. The result indicates that the teachers were

of the view that they lacked certain skills and background knowledge for teaching the EST courses.

Table 12

Teachers' Responses on the Characteristics of the Core EST Syllabus

Characteristics of the EST course	Responses of Teachers				(N = 43)
	SA	A	D	SD	Wt Av.
Syllabus content is overloaded	4(16)	7(21)	30(60)	2(2)	2.30
Identified experiences unfamiliar to students	4(16)	15(45)	24(48)	0(0)	2.53
Assumption of teachers background knowledge and skills not appropriate	6(24)	30(90)	7(14)	0(0)	2.98
Methods prescribed are not familiar to teachers	4(16)	19(57)	17(34)	3(3)	2.56
Planning demands are too much on teachers	6(24)	14(42)	20(40)	3(3)	2.53
Topics in the syllabus agrees with topics in the textbook	7(28)	30(90)	5(10)	1(1)	3.00
Textbook exercises too difficult for students	2(8)	7(21)	30(60)	4(4)	2.16
Specified periods are provided on the time table	3(12)	16(48)	22(44)	2(2)	2.47

KEY: SA = Strongly Agree
A = Agree
D = Disagree
SD = Strongly Disagree

(W) = Weighted Responses
Wm =Weighted Average/Mean

According to Hisrich and Peters (1992), technical, managerial and entrepreneurship skills are the three essential requirements for a successful operation of an enterprise. Therefore, lack of such skills by the teachers will inhibit successful implementation of the course.

The weighted mean score for the statement that "methods prescribed are not familiar to teachers" was 2.56. Thus the teachers were of the view that they are not quite familiar with the methods prescribed in the syllabus for the course. This implies that the course delivery by the teachers would not be effective. The finding is of concern to the implementation of the EST course because Arthur (1999) had cautioned that majority of teachers do not use the teaching methods and strategies spelt out to be used and this may affect students' activities negatively.

The mean score recorded for the statement that "planning demands are too much on teachers" was 2.53 indicating that, in the opinion of the teachers, the syllabus makes heavy demands on teachers for planning to teach EST lessons. This suggests that the EST teaches may not be able to plan their lesson effectively and that may result in inadequate implementation. This conclusion is based on finding reported by Havelock and Huber (1977) in their study that inadequate planning in particular is a barrier to implementation.

The weighted average of responses for the statement that "topics in the syllabus agree with topics in the textbook was 3.00. Therefore, the teachers are of the opinion that the topics in the EST syllabus agreed with the topics in the EST textbooks.

The weighted mean score of the responses on the statement "textbook exercises are too difficult for students" was 2.16. The result suggests that the

teachers were of the view that the students do not find the exercises in the EST textbook difficult, because the mean score of 2.16 is less than 2.50. This implies that both teachers and students are committed to the objectives of the EST course and this would contribute to effective and successful implementation of the course.

The weighted average of respondents' responses on the statement that "specified periods are provided on the time table" was 2.47. It means that the respondents were of the opinion that the time allotted or provided on the time table for the teaching and learning EST is not adequate as specified in the syllabus. The result suggests that there are variations in the teaching periods provided by the different institutes and it can negatively affect the implementation. This finding corroborates Bean et al. (1986) report that inadequate time allocation to implement a curriculum is barrier to successful implementation.

The independent t-test was used to determine whether there are significant difference between the teachers and the students with regards to the clarity of the purpose and objectives of the EST course. The result of the test revealed no significant difference between the teachers and the students on the clarity of the purpose and objectives of the EST course. (Refer to Appendix I).

Methods and Strategies for Implementation

This section of data analysis addresses

i. The instructional organization and practices in the EST courses; and
ii. Application of the recommended methods and strategies for the course delivery.

The weighted mean scores of responses were used in the analysis of the data with the same interpretation that a weight mean scores below 2.50 were considered to indicate that the condition never applied and mean scores of 2.50 and above were considered to indicate that the condition applied in the institute. See appendix D for full table.

Instructional organization and practices in EST.

The respondents were asked to indicate the extent to which certain conditions applied in the institute with regard to instructional organization and practices in the teaching of the EST course. The responses of the teachers and the students are presented in Table 13.

From the table 13, the weighted mean scores of both the teachers and the students responses on the condition that lessons are planned using topics in the syllabus were 3.40 and 2.68. The result shows that the teachers used topics suggested in the EST syllabus in planning their lessons.

This finding implies that majority of the EST teachers are interested in the EST course and so do plan their lesson, based on the topics in the syllabus. The result seems to contradict Arthur's (1999) finding that majority of teachers do not always plan their lessons within the framework of the syllabus sent to schools. Probably, EST is a new course and the teachers do not have other material sources to consult.

The weighted average scores of the teachers and the students on the extent to which class exercises are given to students by the EST teacher were 2.80 and 2.46 respectively. Therefore, while the teachers said that they give class exercises every week, the students said that was not the case. This depicts a contradiction between teachers and students. This finding agrees

with Arthur's (1999) finding that written exercises were less frequently assigned by the teachers to students.

Table 13

Instructional Organization and Practices in EST Course in the Institute as Perceived by the Respondents

Condition relating to organization and practice	Extent of Condition to Respondents	
	Teachers wm	Students wm
(1) Lessons are planned using syllabus	3.40	2.68
(2) Class exercises given weekly	2.80	2.46
(3) Class exercises marked promptly	3.28	2.65
(4)Homework given weekly	2.74	2.33
(5) Homework are marked promptly	3.12	2.60
(6) Topics in the syllabus are all treated	2.56	2.60
(7) Notes to students relates to course content	2.63	3.16
(8) Specified periods are followed	3.14	3.23

KEY: 4 = Very often
3 = Often
2 = Sometime
1 = Never

(W) Weighted responses

Wm Weighted mean/average responses

Similarly, the mean scores for the teachers and the students on the extent to which home work was given weekly to students were 2.74 and 2.33. Once again there was a contradiction between the responses of the teachers and the students. The teachers said homework was given weekly but the students did not agree to that assertion by the teachers.

The weighted average scores for both teachers and the students responses on the extent to which exercises (class exercise and homework) are

marked promptly were above 2.50, indicating that teachers promptly marked exercises given to students.

The weighted mean scores for the teachers and the students on the extent to which all topics in the EST syllabus were treated were 2.56 and 2.60. respectively Thus, the EST teachers treated all topics in the EST syllabus. This implies that EST teachers in the public technical institutes are committed to the EST course.

The weight mean responses of the teachers and the students on the extent to which notes to students relate to course content were 2.63 and 3.16, respectively indicating that notes given to students by the EST teacher relate to the course content.

The weighted average of responses for the teachers and the students on the extent to which "specified periods are followed" were 3.14 and 3.23. respectively The mean scores of 3.14 and 3.23 were above 2.50 and, therefore indicate that the specified periods for teaching EST in public technical institutes are adhered to by the EST teachers.

Application of Recommended Teaching Methods and Strategies

The respondents were asked to indicate the extent to which the various teaching methods and strategies are applied. The responses for the teachers and students are presented in Table 14.

The table shows that both the teachers and the students agreed that only two (2) of the ten (10) teaching methods prescribed by the syllabus were usually used by teachers for teaching EST. These methods were lecture and problem soling with the former featuring predominately. On the other hand, both the teachers and the students said that as many as five of the ten

recommended teaching methods were used scarcely by the teachers in teaching. These methods were field trips, role play, debates, project work and bringing in resource persons from outside the institute.

For the remaining three recommended methods by the syllabus, while the teachers said that the methods were being used in teaching EST in the institutes, the students said otherwise, that scarcely did the teachers use those methods. These teaching methods were group discussion and demonstration.

The contradiction or opposing views of the two groups on the use of these methods may be explained in terms of lack of knowledge of the students the meaning and nature of those methods. The students may even not recognize these methods when they are being used by the teachers because these methods are not commonly used in the Ghana school system and so the methods will not be familiar to the students.

The overall results, based on the data, suggest that most of the recommended teaching methods for the subjects were not much used in teaching. It may be concluded that not much of the recommended methods and strategies are being used for the subjects. Effective implementation in not likely unless efforts are made to used the other unfamiliar but effective methods, such as field trips, debates, role play and project work.

Table 14

Responses of the Respondents on Teaching Methods and Strategies

Teaching Methods and Strategies	Extent of Application	
	Teachers	Students
	Wm	Wm
Field Visit	2.02	1.98
Role Play	2.40	2.14
Brainstorming	2.98	2.45
Group Discussion	2.91	2.14
Problem Solving	2.56	2.50
Debates	1.91	1.67
Demonstration	2.72	1.85
Project work	1.84	1.85
Lecturing	3.79	3.00
Resource Persons Outside Institute	1.63	2.01

KEY: 4 = Very much
3 = Much
2 = Not much 1 = Not at all

(W) Weighted responses
Wm Weighted mean

Availability of Facilities and Instructional Resources for the EST Course

The respondents were asked to indicate the extent to which they agree to the statements on the availability of facilities and instructional resources for the EST Course. The responses of the teachers and the students are presented in Table 14. Weighted mean scores of responses were used in the analysis of the data with the interpretation that weighted mean scores below 2.50 were considered to indicate disagreement on the statement and mean scores of 2.50 and above were considered to indicate an agreement to the statement. (See Appendix G for the full Table).

From table 15, the weighted mean scores for the teachers and the students responses on availability of textbooks and reference materials for

teaching and learning EST both were below 2.50 indicating that both groups did not agree that there were adequate textbooks and reference materials in the institute for teaching and learning the EST course in the technical Institutes. From the classroom observation carried out, only the Teacher Guide on EST was used by the teachers. This may result in poor implementation.

This finding is not a departure from the literature. Clark (1987) reported that constrains such as timetable, class size and insufficient resources, result to ineffective implementation. Cobbold (1999) also reported that lack of textbooks may result in the students not getting the right general information of the subject.

Table 15

Responses of the Respondents on Availability of Facilities and Instructional Resources

Resources and facilities	Extent of Agreement by Respondents	
	Teachers Wm	Students wm
The Institute has EST textbooks	2.28	2.17
Students have own copies of textbooks	1.47	1.99
The Institute's Library has EST textbooks	1.91	1.63
The Institute's Library has reference materials	1.91	2.02
The Institute has adequate classrooms	2.93	2.94
The Institute has adequate furniture	3.19	3.17
The Institute has adequate trainers guide	2.19	2.20

KEY: 4 = Strongly Agree (w) Weighted responses
3 = Agree wm Weighted average/mean responses
2 = Disagree
1 = Strongly Disagree

The weighted average scores for the teachers and the students' responses on whether there are adequate classrooms were 2.93 and 2.94 respectively. Thus both the teachers and the students agreed that there were adequate classrooms to accommodate students for the EST course.

The mean scores for the responses of the teachers and student on whether there are adequate furniture were 3.19 and 3.17 respectively. Thus both teachers and students agreed that there were adequate furniture in the institutes.

The weighted mean scores for the teachers and the students' responses on whether the institute has adequate qualified EST teachers were 2.21 and 2.49 respectively. Therefore both groups of respondents disagreed that there were adequate qualified teachers for the EST course. Though there are professionally trained teachers with good academic qualifications, they lack adequate entrepreneurial skills to enable them teach effectively. This can affect the implementation of the EST course.

The mean scores of the responses of the teachers and the students on whether the institute has adequate trainers guide were 2.19 and 2.20 respectively. This implies that though there are some trainers' guide, they are not sufficient for students to use.

The t-test was used to determine whether there are significant difference between the teachers and students on the availability facilities and instructional resources. Significant difference was found between the teachers and students with regard to adequacy of qualified EST teachers. (Refer to Appendix J)

Factors Affecting Implementation of the EST Course

The teacher respondents were asked to indicate the extent to which certain factors can affect the implementation of the EST course. The responses are presented in Table 16. Weighted mean scores of the responses were used in the analysis of the data with the interpretation that a weighted mean score below 2.50 was considered to indicate that the factor could not affect the implementation and a mean score of 2.50 or above was considered to indicate that the factor could affect the implementation of the course.

The mean score of the responses of the teachers for the statement that "adequate teaching period promotes implementation of EST" was 2.65. Thus the teachers were of the opinion that adequate teaching period was required to promote the implementation of the EST course.

This implies that the periods allotted on the time table to teach EST in the institute were adequate to promote implementation of the course. According to Bean (1986), insufficient time needed to implement a curriculum is a barrier to successful implementation.

The weighted average score of the responses on the statement that the "Principal's positive attitude promotes implementation was 2.84; and this was perceived as the most important factor of the seven identified factors. This indicates that teachers are of the view that the Principal's positive attitude towards the EST course could promote implementation of the course. This corroborates the findings of Berman and McLaughlin (1977) that projects which have the support of the Principals of the institutions are most likely to succeed. Therefore positive attitude of the Principal towards the EST may promote effective implementation.

The weighted mean score of responses for the statement "in-service training for the teachers promotes implementation of the EST course" was 2.58. This indicates that the teachers perceived in-service training as a factor to promote implementation of the EST course.

Table 16

Teachers Responses on Perceived Factors Affecting the Implementation of the EST Course

Factors Promotion implementation	Extent of Promotion to Respondents No. of Teachers (N = 43)				
	4	3	2	1	Wm
Adequate teaching periods	14 (56)	3(9)	23(46)	3(3)	2.65
Principal's positive attitude toward EST course	4(16)	30(90)	7(14)	2(2)	2.84
In-service training for teachers	3(12)	16(48)	25(50)	1(1)	2.58
Students interest in EST	16(64)	1(3)	25(50)	1(1)	2.74
Students background in EST	7(28)	14(42)	18(36)	4(4)	2.56
Lack of parental support in EST	7(28)	14(42)	20(40)	2(2)	2.60
Lack of EST course in Pre-service education	13(52)	12(36)	13(26)	5(5)	2.77

KEY: 4 = Very Seriously
3 = Seriously
2 = Not Seriously
1 = Not at all

(W) Weighted responses
Wm Weighted mean/average responses

According to Fullan (1982), the greater the quality and quantity of sustainable interaction and staff development, the greater the degree of

implementation. He further stated that failure to realize that there is the need for in-service training during implementation may result in weak implementation (Fullan 1991). This suggests that in-service training organized for the EST teachers may promote implementation.

Again the weighted mean score of the teachers responses for the statement that students' interest on EST promotes implementation of the EST course was 2.74. This indicates that teachers are of the view that student interest in EST course was an important factor to promote implementation. This implies that student interest is very important because they are the beneficiaries of the EST course and for that matter their interest is paramount. Poor attitude towards the course would naturally lead to poor implementation.

The weighted average score of the responses of the respondents for the statement that students' background in EST could seriously promote the implementation of the course was 2.56. This indicates that the teachers were of the view that students' background in EST could promote the implementation of the EST.

The weighted mean score of the teachers responses for the statement that lack of Entrepreneurship in pre-service teacher education impedes the implementation was 2.77. This indicates that the teachers were of the view that the absence of entrepreneurship course in pre-service teacher education was not helping with the implementation of the EST course in the public technical institutes. This implies that teaches who were taught entrepreneurship or who acquired the knowledge of the subject matter of the course contribute to effective teaching of the course and could lead to successful implementation of the course.

Perceived Relevance of the EST Course by Teachers and Students

The respondents were asked to indicate on a four point scale, the extent to which they perceived the relevance of the EST course. The responses of the teachers and the students to the items in the questionnaire relating to relevance are presented in Table 17. Weighted mean scores of the responses were used in the data analysis. As before, mean scores below 2.50 were considered to indicate not relevance and mean scores of 2.50 and above were considered to indicate relevance. (Refer to Appendix H for the full Table).

From Table 17, the weighted average scores of the teachers and the students' responses on the perceived relevance that "EST Course should be compulsory" were 3.67 and 3.36 respectively. This shows that the teachers and the students agreed that EST course is relevant and should be made a compulsory course in the public technical institutes.

The result suggests that both groups of respondents have positive attitude towards the EST course. According to Osero and Nkabu (1994), entrepreneurship, as an intervention, brings about poverty reduction, employment of the youth and control of rural-urban migration and these could have been motivation factors for the respondents in this study.

The weighted mean score of the teachers and students' responses on the perception that EST was to improve students business and management skills were 3.88 and 3.43 respectively. It shows both the teachers and students agreed that EST should be taught in the technical institutes.

Table 17

Teachers and Students Perception of the Relevance of the EST Course

Views on relevance of EST	Extent of Relevance to Respondents	
	Teachers Wm	Students wm
EST course should be compulsory	3.67	3.36
EST improve business and Management skills	3.88	3.43
EST has practical application in the workshop	3.23	2.75
EST improves students employable skills	3.53	3.48
EST develops students interpersonal and communication skills	3.56	3.30
EST enhances students' chances of getting employment.	3.30	3.42
EST encourages student for self-employment opportunities	3.56	3.39

KEY: 4 = Strongly Agree
3 = Agree
2 = Disagree
1 = Strongly Disagree

(w) Weighted responses
wm Weighted mean/average responses

This finding is in line with the view of Harding (2003) that education system should encourage more business like thinking. Hisrich and Patel (1992) also reported in their study that technical, managerial and entrepreneurial skills are essential skills which need to be taught in schools.

The mean scores for the responses of the teachers and the students on the perception that EST has practical application in the workshop were 3.23

and 2.75 respectively. The mean scores were above 2.50 which indicate that both groups of respondents agreed that EST has practical application in the workshop activities of technical students. This implies that students ability to set-up and manage their own workshop depends on their entrepreneurial skills and knowledge.

The weighted mean scores of the responses for the teachers and the students that EST improves students' employable skills is relevant were 3.53 and 3.48 for the teachers and the students respectively. Since the mean scores were above 2.50, it is an indication that both the teachers and students were of the view that the EST improves students' employable skills.

The weighted average scores for the teachers and the students on the statement "EST develops inter-personal and communication skills of students" were 3.56 and 3.30 respectively which indicate that both groups of respondents agreed that EST develops students interpersonal and communication skills.

The weighted average scores of the responses of the teachers and the students responses on whether EST enhances students' chances of getting employment were both above 2.50. This is an indication that both teachers and students agreed that learning EST enhances students' chances of getting employment.

This result agrees with one of the objectives of the EST course as a career option to enhance students or trainees chances of becoming self-employed. Also, Hardings (2000) stated in his report that there was a growing positive attitude towards business start-ups with 63% of the students believing in entrepreneurship as a good career choice.

The weighted mean scores of the teachers and the students' responses on the statement "EST encourages students to consider self-employment opportunities" were 3.56 and 3.39 respectively. The mean scores were above 2.50 indicating that both groups of respondents were of the view that EST was relevant because it encourages students to consider self-employment opportunities.

The result, suggests that the respondents appreciate self-employment as a viable alternative to wage employment. The t-test was used to determine whether there are any significant differences between the teachers and students perceptions with regards to the relevance of the EST course. The result indicates no significant difference. (Refer to Appendix K).

Comments and Suggestions by the Respondents

Comments by Respondents

The respondents made general comments on the EST course. The comments were classified into three main areas: availability of textbooks, quality of teacher delivery and highly theoretical orientation of the course.

An examination of the comments revealed that 32 or 74% of the teachers and 121 or 75% of the students stated that there were no EST textbooks for effective teaching and learning. The lack of textbooks creates difficulty for implementation of the course. Lewy (1977), had observed that the condition under which the curriculum was implemented was relevant to the success of an innovation. He concluded that any new curriculum became effective when external variables such as classrooms, teaching and learning materials, such as textbook and other facilities were available and favourable.

The second comment was poor delivery from some teachers teaching the EST course. Only eight or 19% of the teachers testified that some of their colleagues deliver poorly. The teachers not teaching well could be those teachers who did not undergo any EST training and were made to teach the course. Some students, 20 or 12% also affirmed that some teachers deliver poorly. This corroborates the findings of Fullan (1982), that the greater the quality and quantity of sustainable interaction and staff development, the greater the degree of implementation. Another comment made by three teachers (7%) and 20 or 12% of the students was that the presentation was full of theoretical work.

Suggestions by Respondents

The respondents also made three good suggestions for improvement of the EST course. These suggestions are stated below:

1. Majority of both the teachers (32 or 74%) and the students (120 or 75%) suggested that EST textbooks and other reference materials should be made available at the institute libraries for both teachers and students to use.
2. Another suggestion given by 6 or 11% of the teachers and 21 or 13% of the students was that teachers teaching EST need periodic in-service training to help them up-date their entrepreneurial know-how for successful implementation.
3. Finally, five or 12% of the teachers and 20 or 12% of the students suggested that role models or resource persons from outside the institute, field trips and debates should be employed as strategies to improve the teaching and learning of the EST course.

Result of Classroom Observation

The researcher conducted classroom observation aimed at describing what teachers and students actually do in the four institutes with respect to the implementation of the EST courses as suggested by the designers.

The observation was focused on teachers highest qualification, number of students in EST class, type of training in Entrepreneurship, number of years teaching the EST course, duration or period allocated for the teaching of the course, type of teaching methods and strategies used, students participation and punctuality.

From the observation, four classes from each of the institutes was observed. It was found that out of the four EST teachers, two had Advance Craft Certificate, one Higher National Diploma and the remaining one possessed a Bachelor Degree. It was also found that the teachers had taught the course between one to three years. Only two of the teachers had their EST training from a tertiary institution.

The researcher also observed that only Takoradi Technical Institute was adhering to the two periods of 40 minutes duration suggested by the designers of the course. The remaining institutes were doing one period of 40mins and this does not conformed to the requirement specified by the designers, and could result to unsuccessful implementation of the EST course.

In all the lessons observed, the teaching was teacher-centered and students were listening and taken notes. Also majority of the students had difficulty in expressing their ideas and they appeared to be cautious in their use of the English language. The problem is that when they make mistake in

the course of expressing themselves their friends may laugh at them, and the presence of the observer can also deter them from expressing themselves.

The lecture method was the dominant strategy used. Discussion and brainstorming were sometimes used. No teaching aid was used by the teachers in the four classes observed. The EST Trainers Guide was the only instructional material used by the teachers. Some of the teachers used their own entrepreneurship notes and pamphlets from their tertiary institutions for delivery.

It can be concluded based on the observation made that, the required role behaviours of the EST teachers and students did not conform to those suggested in the syllabus, and this suggest unsuccessful implantation of the EST course.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose of the study was to find out the extent to which Entrepreneurship Skills Training (EST) course was being implemented in the public technical institutes in the Central and Western Regions of Ghana. This chapter provides the summary of the study, conclusions drawn from the findings, recommendations made and suggestions for future research.

The specific areas covered include:

1. Clarity of the objectives and characteristics of the EST course to the teachers and students.
2. Teachers preparation, knowledge and skills for teaching the course
3. Availability of instructional resources for the EST course.
4. The factors affecting the implementation of the EST course and
5. The perceived relevance of the EST course

The descriptive sample survey design was used for the study. Two sets of questionnaire were used for data collection. In addition, classroom observations were conducted in the four public technical institutes involved in the study to cross validate the data collected.

Purposive and random sampling techniques were used to select 243 students and teachers out of which 204 (43 teachers and 161 students) selected completed the questionnaire.

Summary of Findings

The main findings of the study were as follows:

1. Both teachers and students have clear understanding of the purpose, objectives of the competency based syllabus. However they find the content of the syllabus over loaded, text book exercises difficult for students and insufficient time for the teaching of the course. No significant differences were found between the teachers and the students with regard to clarity of purpose and objective in the syllabus.
2. Majority (79%) of the EST teachers were professional trained teachers but 56% of them had not taken formal course or programme in entrepreneurship from a recognized tertiary institution and therefore lack skills and knowledge of the subject matter in entrepreneurship.

   Majority (83%) of the EST teachers indicated that they needed additional training in entrepreneurship to be able to teach the course effectively.
3. Teaching and learning methods and strategies which required much students' activities were usually avoided by the teachers and the lecture method was mostly used in the teaching of the EST course.
4. There were adequate classrooms and furniture in the institutes for teaching and learning of the EST course. However, there were inadequate qualified EST teachers and no EST textbooks and reference materials for both the teachers and students. The trainers guides, which were the only available resource materials for the EST teachers, were also inadequate to go round. Significant difference was found between teachers and students on adequacy EST teachers.

5. The principal positive attitudes towards the EST course, students interest in EST, adequate teaching periods and in-service training for EST teachers are the major factors which facilitate implementation but lacked of EST course and parental support impedes implementation.
6. Both the teachers and the students perceived the EST course in the public technical institute to be relevant to their needs. No significant difference was found between the teachers and the students with regard to the relevance of the EST course.

Conclusions

The conclusion drawn from the findings about the extent of implementation of the Entrepreneurship Skills Training course in the technical institutes revealed that, there was unsuccessful implementation of the EST course based on the Fidelity approach to the study. The main reasons being that the instructional organisation and practices were not compatible with the competency based syllabus because most of the teaching methods and strategies specified were not used, class exercises and homework's were not adequately given to students showing inadequate Fidelity. Also, the EST teachers were not adequately prepared for the course because they lacked knowledge and skills in entrepreneurship.

Recommendations

In the light of this conclusion, the following recommendations are made:

1. Newly trained teachers and teachers already at post must be helped by TVED/GES to improve upon their skills and knowledge in

entrepreneurship for effective teaching of the course. This could be done through periodic, in-service training courses and workshops.

2. More EST trainers guide, reference and teaching materials that can facilitate the implementation of the EST course should be provided for the teachers and students by TVED/GES so that they can effectively carry out the activities suggested in the syllabus.
3. The technical institutes' organisation and time tabling should be flexible to permit the arrangement of field-trips, debates and the use of resource persons from outside the institute. Also role models in entrepreneurship should be used to improve the delivery of the course by the institutes to make the course more practical and attractive to the students.

Suggestions for Further Studies

This study should have been conducted to cover the public technical institutes in all the ten regions of the country so that the findings can be generalized for the country. It is, therefore, suggested that similar studies should be conducted in all the public technical institutes in the other regions by the Technical Vocational Education Division (TVED) of the Ghana Education Service (GES).

Finally, it is suggested that an evaluation of the Entrepreneurship Skills Training (EST) course in the public technical institutes should be conducted to find out how its objectives are being achieved.

REFERENCES

Adentwi, K.I. (2005) *Curriculum development: An introduction*. Kumasi: Skies Printing Press.

Aggrey, S. (1993). *The promotion of self-employment in vocational and technical institutions in Ghana.* Trends, issues and options (A revised study). ILO Umbrella programme: sustained employment generation (GHA/89/007) Component II. 7-16.

Aggrey, S. (1994). *Entrepreneurship education for national vocational and technical institutes in Ghana.* Umbrella programme of sustained employment generation. Component II. 26-34.

Agyeman, D.K. (1987). Education for rural development: *exploring the views, expectations and recommendations for rural people.* Unpublished survey report. Cape Coast.

Aoki, T. (1977). *British Columbia social studies assessment*. Vol. 1-3 Victoria, British Columbia: Ministry of Education.

Arthur, C. (1999). *Implementation of the core English Language in Senior Secondary Schools in Ashanti Region of Ghana*. Unpublished M. Phil Thesis: University of Cape Coast.

Ary, D., Jacobs, L.C., & Razavieh, A. (1990). *Introduction to research in education* (4th ed.), USA: Holt, Rinehart and Winston, INC.

Ashmore, M . C. (1990). "Entrepreneurship in vocational education". *In entrepreneurship education: current development, Future promises.* Westport CT.

Awashti, D.N. (1993). *Draft paper: India*. ILO Expert consultation on training for Self-employment through VTIs, Turin.

Barnes, D. (1985). *Practical Curriculum Study.* London: Routledge and Kegan Paul.

Bannock, G. (1981).The economics of small firms: return from the Wilderness. Basil Blackwell, Oxford.

Bateman, T.S. & Snell, S.A. (1999). *Management: building competitive advantage*. New York: McGraw-Hill.

Beane, J.A. (1986). *Curriculum planning and development* Massachusetts: Allyn and Bacon, Inc.

Berman, P. (1980). Thinking about programmed and adaptative implementation. Matching strategies to situations. In H. Ingram and D. Mann (Eds). *Why policies succeed or fail* 205-227 Beverly Hills CA: Sage

Berman, P. & MClaughlin, M. (1977). *Federal Program supporting education Change: Implementation and sustaining innovation.* Santa Monica, CA Rand Corporation.

Berman, P. & Parlay, E. (1975). *Federal programme supporting educational Change.* Factors affecting change Agent projects. Santa Monica, CA. Rand Corperation.

Berman, P. & McLaughlin, M. (1978). *Federal Programme supporting educational change:* implementing and sustaining innovation. Santa Monica, CA Round corporation.

Best, J.W. & Kahn, J.V. (1993). *Research in education*. Boston: Allyn and Bacon Inc.

Bishop, G. (1985). *Curriculum development: A textbook for students.*Hong Kong: Macmillan Publishers.

Boateng, K. (1994). *Towards an integrated human resources development strategy in Ghana.* Paper presented for the formulation of the national employment policy and programmes for Ghana. 38-57.

Boyd ,N. G. & Vozikis, G.S. (1994). The influence of self- efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice,. 18, 63-77.*

Callahan, J. F., Clark, L.H., Kellough, R. D. (1992). Teaching *in the middle and secondary schools*. New York: Macmillan Publishers.

Chambers, J. G. (1989). *Preventing risky business in 8 steps Vocational Education Journal,* 64, (8) 399.

Carrier, C. & Hindle, F. (2007).Strategies for teaching entrepreneurship: what else beyond lecturers, case studies and business plan? *Hand book of research in Entrepreneurship Education.* Cheltenham (UK), Edward Elgar Publishing.

Charters, W. & Pellegrim, R. (1973). Barries to the innovation process: four case studies of different staffing. *Educational Administration Quarterly,* (1), 3-4.

Clark, J L. (1987). *Curriculum review in school foreign language learning*. Oxford: Oxford University Press.

Combs, A .W (1965). *The professional education of teachers*. Boston: Allyn and Bacon.

Corwin, R.G. (1974). *Education in crisis. a sociological analysis of schools and universities in transition*. New York: John Wiley and Sons.

Crandall, D. (1983). *People, policies and practice. Examining the chain of school improvement.* New York. Andover, MA Development centre for Teacher Evaluation, university of Texas.

Crandall, D. (1986). Strategies planning issues and bear on the success of school improvement efforts. *Educational Administration Quarterly,* 22 (3), 21-53.

Curan J. & Standworth, J.(1989) Education and training for enterprise: some problems of classification, evaluation, policy and research. *International Small Business Journal,* 7, 2.

Dainow, R. (1986). Training and education of entrepreneurs: the current state of the literature." *Journal of Small Business and Entrepreneurship.* 3, (4), 10-23.

Davidson, P. (1995). *Determinants of entrepreneurial intentions.* Piacnza. Italy, Edward Elgar Publishing.

Doll, R.C. (1982). *Curriculum implement decision making and process*. Baston: Allyn and Bacon, Inc.

Ducci, M.A. (1991). *Vocational training on the threshold of the 1990s*. Washington, D.C.: World Bank.

Elliot, J. (1976). *Collecting information to test hypotheses about curriculum dissemination and implementation.* Working paper W. Pirogues in Learning science and disseminating study. London: University of Cambridge.

Fayolle, A. & Klandt, H. (2006). *International entrepreneurship education*: issues and newness, Cheltenham (UK): Edward Elgar. Publishing.

Fayolle A. (2003) *Using the theory of planned Behaviour in assessing entrepreneurship teaching programme*, Grenobel, France.

Fayolle, A. (2007) *Handbook of Research in Entrepreneurship Education – A general Perspective, Volume* 1, Cheltenham (UK): Edward Elgar *Publishing.*

Filion, L.J. (1994).'Ten steps to entrepreneurial teaching.' *Journal of Small Business and Entrepreneurship* 11 (3), 68-78.

Fraenkel, J. R. & Wallen, N.E. (2003). *How to design and evaluate research in education* (5th ed.). Boston: McGraw Hill.

Friedenberg, E. (1965). *Coming of age in America*. New York: Random House.

Fulan G.M. (1991). *The new meaning of education change*. England: Caswell Educational Limited Villagers House.

Fullan, M. (1972). Overview of innovative process and user's *Interchange*. 3 (3), 1-46.

Fullan, M. (1982). *The meaning of educational change*. New York: Teachers College Press.

Fullan, M. & Pomfret, A. (1977). Research on curriculum and instrumentation. *Review of Educational Research 47* (1), 335-397.

Galanter, W.L. (1978). *Elementary school staff support system effect on program implantation and job satisfaction*. Unpublished PhD Dissertation Founham University, New York.

Gautman, B. (2007). *Managing entrepreneurship development.* New Delhi: Cyber Cycle Tech Publication.

Gay, L.R. (1987). *Educational research competencies for analysis and application.* (3rd ed.). Ohio: Meril Publishing Company.

Gay, L. R. (1992). *Educational research competencies for analysis and application*. New York: Macmillan Publishing Company.

Garavan, N.T. & O'cinneide, B. (1994). Entrepreneurship education and training program: a review of evaluation part 1. *Journal of European Industrial Training,* 18 (8), 3-12.

Gartner, W.B. & Vesper, K.H. (1994). Executive forum: experiments in entrepreneurship education: success and failures. *Journal of Business venturing 9 (3), 179-187.*

Ghana Statistical Service, (2000). Population Cencus of Ghana: Demographic and economic characteristics- total country, Ghana: GSS.

Gibb, A.A. (1993). The Enterprise culture and education: understanding enterprise education and link with small business. entrepreneurship and wider educational goals. *International Small Business Management Journal,* 11 (2), 14-18.

Gibb, A.A. (1996). Entrepreneurship and small business management: can we afford to neglect them in the twenty- first century business schools? *British Journal of Management* 4 (3), 309-324.

Gillin, L. M. (1991). Entrepreneurship education: the Australian perspective for the nineties. *Journal for Small Business Education,* 9 (1), 60-72.

Gorman, G., Hanlon, D., & King, W.(1997). Some research perspective on entrepreneurial education, enterprise education for small business management: a ten year literature view. *International Small Business Journal, 15 (3), 56-77.*

Gross, N., Giancquinta, J., & Bernstein, M. (1971*). Implementing organizational innovation. A sociological analysis of planned educational change* .New York: Harper and Row Publications.

Hall, G. & Loucks, S. (1982). Bridging the gap: *policy making in education*. Eight first yearbook of the national society of the study of education. Part 1,133-158. Chicago: University of Chicago Press.

Hall, G. & Loucks, S. (1976). *A developmental model for determining whether or not the treatment really is implemented Austin*: Research and development centre for teacher education. University of Texas.

Hannon, M. (2002) The final report of the expert group *Best procedure project on education and training for entrepreneurship:* Brussels: D.G. Enterprise.

Hannon, M. (2005). Toward a theory of entrepreneurial careers. *Entrepreneurship Theory and Practice,* 19, (2), 7-12.

Haverlock, R.G. & Haberman, AM. (1977). Solving educational problems, the theory and reality of innovation in developing countries. *A study prepared for the international Bureau of education*. Paris: UNESCO.

Hawes, H. (1970). *Curriculum and reality in African primary schools*. Singapore: Longman Group Limited.

Hisrich, R.D. & Peters, M.P. (1992). *Entrepreneurship*. Starting, developing and managing a new enterprise. (2nd ed.). New York: Harper Collins Publishers.

Hopkins, D. (1990). Integrating teacher development and school improvement: A study in teacher personality and school climate" In Joyce B.(Ed). *Changing school culture through staff development.* Alexandria (p. 41-67)

Hoppers, W. (1993). *The promotion of self-employment in education and training institutions:* perspectives in East and Southern Africa. Small enterprise development programme. New York: Harper Collins Publishers.

Huberman, A.M. (1983). School improvement strategies that work: some scenarios. *Educational leadership,* 4 (3), 27-27.

Huberman, A. M. (1988) .Teacher careers and school improvement.. Guidelines for re-orienting vocational training *institutions* towards self-employment. *Journal of Curriculum Studies,* 20 (2) 119-132.

International Labour Organization (1988). Rural and urban training in Africa. Addis Ababa. 7th African Regional Conference, Harare, Addis Ababa.

Jakson, P.W. (Ed) 1992). *Handbook of research and curriculum.* New York: Macmillan Publishing Company.

Katz, J.A. (2003). The chronology and intellectual trajectory of American entrepreneurship education *Journal of Business Venturing,*18 (3), 315-597

Kuratko, D.F. (2005). The emergence of entrepreneurship education development, trends and challenges, *Entrepreneurship Theory and Practice*, 2, 577-597.

Lambert, R. (1994). *Lambert review of business – University collaboration.* London: H.M Treasury.

Levine, D.V. & Ornstein, A .C. (1977). *Guidelines for change and innovations in the secondary school*. Curriculum NASSP Bulletin, 9, 15-22

Lewy, I .W. (1981). *The nature of curriculum evaluation in A Lewy (Ed). Handbook of curriculum evaluation.* New York: UNCESO/ Longman Inc.

Louis, K. & Miles, M .B. (1990). *Improving the urban school*: what works and why. New York: Teacher College Press.

Manuh, G. & Brown, R. (1987). Resources for the development of entrepreneurs. A guided reading list and annotated bibliography. *Commonwealth secretariat* (p. 80-111).

McGrath, S., King, K., Leach, F. & Carr-Hill, R. (1994). *Education and training for the informal sector*. Overseas Development Administration, (Education Division), London,

Mclaughlin, M. (1976). Implementation of ESEA title 1: A problem of compliance. *Teacher College Record*, 80 (1), 69-94.

Manhrens, A. W., & Lehmann, I .J. (1991). *Measurement and evaluation education and psychology* (4th ed.). Florida: Harcourt Brace College Publishers.

Medi (1993). *Draft paper: Malawi*. ILO expert consultation on training for self- employment through VTIs, Turin.

Miles,M.B. (1964). *Innovation in education:* New York Teacher College Press.

Nelson, R.E. (1993). Promotion of small Enterprise In Neck, P.A. & Nelson R.E. (Eds), *Small enterprise development: Polices and Programmes,* (2nd ed) (pp. 1-15). Geneva: International Labour Office.

Neuman, W. L. (2000). *Social research methods qualitative and quantitative Approach*. (4th ed.). New York: Allen and Bacon.

Nwana, O.C. (1981). *Introduction to educational research for student teachers*. Ibadan: Hewinam Educational Books Ltd.

Ntiamoah-Mensah, C. (2002) Draft paper: *Ghana Entrepreneurship training for self employment in VTIS*: Accra (pp. 2-4).

Okudo, J.A., Mburugu, J.B., Getambu, A., Thiongo, J., Osero, S., & Nkabu, S. (1994). *Entrepreneurship development in Kenya through education and training*. A national model. (p. iv, 1-4).

Oliva, P.E. (1982). *Developing the curriculum:* USA. Harper Collins Inc.

Ornstein, A. C. & Hunkins F. P. (1988). Implementing curriculum changes: guidelines for principles. *NASSP Bulletin* 67-72.

Osero, S. & Nkabu, S. (1994). *Entrepreneurship development in Kenya through educational and training: A national model*, Nairobi Kenya.

Osuala, E.C. (1991). *Introduction to research methodology*. Onitsha: Africa-Fep Publishers Ltd.

Patel, V.G. (1992). *Institutionalization of entrepreneurship development (with focus on technical education)*. Keynote Address. (p. 1-44).

Plaschka, G.R. & Welsch, H. P. (1990). Emerging structures in entrepreneurship education: curricula design and strategies. *Entrepreneurship Theory and Practice*, 14 (3), 55-71.

Pratt, D. (1980). *Curriculum development.* New York: Harcourt Brace Publishers.

Rao, T.V., Wright, C., & Mukherjee, H. (1900). Designing entrepreneurial Skills development programmes. Resource book for Technical and Vocational institutions. *Commonwealth secretariat*, London England.

Resenblum, S. & Louis, K. (1979). *Stability and charge innovation in an educational contest* Cambridge. MA ABT Association.

Rondstadt, R. (1987). The educated entrepreneurs: A new era of entrepreneurial education is beginning", *American Journal of Small Business,* 11(4), 6-15.

Rudduck, J. & Kelly, P. (1976). *The dissemination of curriculum development.* NFER Council for Europe.

Sexton, D.L. & Upton, N.B. (1987).Evaluation of an innovative approach to teaching entrepreneurship, *Journal of Small Business Management*, 25 (1), 22-35.

Solomon, G. T. & Fernald, L.W. Jr. (1991). Trends in Small business management and entrepreneurship education in the United States. *Entrepreneurship Theory and Practice,* 13 (3), 25-39.

Snyder, C.W., & Bolling, F. (1990). *Affective qualities of the classroom."* In Snyder, C. W & Ramatsui, P. T (Jr) (Eds) Curriculum in the classroom. Botswana: Botswana Publishing Company Ltd.

Snyder, J., Bolin, F., & Zumwalt, K. (1992).Curriculum implementation *In Jackson (Ed). Handbook of Research on Curriculum.* New York: Macmillan Publishing Company.

Tamakloe, E.K. (1992). Curriculum evaluation, implementation and innovation. In Abosi and Brookman- Amissah (Eds): *Introduction to education in Ghana* Accra: Sedco Publish Ltd.

Timmons, J.A. (1994). *New venture creation: Entrepreneurship for the 21st century*. Boston: McGraw-Hill

Vesper, K.H. (1997). Measuring process in entrepreneurship education. *Journal of Business Venting,* 12 (4), 403-421.

Vesper, K.H. (1982). "Research on Education for Entrepreneurship" In Kent, C.A. Sexton, D. & Vesper, K. (Eds), *Encyclopedia of Entrepreneurship*. New Jersey: Prentice Hall, Englewood cliffs.

Wilson, B., & Corcoran, T. (1988). *Successful secondary schools vision of excellence in American publishing education*. Philadelphia: Felmer Press.

Zimbardo, P.G. (1992). *Psychology and life*. New York: Harper Collins Publishers.

Zumwalt, K. (1989). 'Begining Professional Teacher, the need for a Curriculum vision of Teaching." In M.C. Raynold (Ed). *Knowledge base for the begining teacher.* Oxford, England: Pentagon.

APPENDIX A

UNIVERSITY OF CAPE COAST

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

(VOTEC)

QUESTIONNAIRE FOR STUDENTS

Unemployment of the graduates of the technical institutes is a problem of national concern. It is believed that the graduates lack entrepreneurial skills to help them go into self-employment when they are unable to enter wage employment. To address this problem, Entrepreneurship Skills Training(EST) has been introduced as a course in the public technical institutes to train students to acquire entrepreneurial skills.

How effectively the course is being implemented is yet to be assessed. Therefore, the aim of this research is to assess the extent to which this EST course is being implemented as outlined in the syllabus developed by the Ghana Education Service on 2002. You are kindly requested to participate in this research by answering the questionnaire.

You are assured that the responses will be treated CONFIDENTIAL.

Thank you.

SECTION A

Background Information about Respondents.

Complete appropriately in the spaces provided your responses:

1. Name of Institute:……
2. Department of the Institute:……
3. Programme/Course of Study:……
4. Level/Class/Year……

SECTION B. Clarity of Characteristics of the EST Course

(Rationale and Objectives)

Instruction: Tick [√] the appropriate space as to the extent to which each of the following statement about the EST course is clear to you.

Item No.	Aspect of the EST course	Very Much	Much	Not Much	Not at all
5	It is clear to me that the purpose of the EST course is to reduce unemployment among technical graduates.				
6.	The objectives of the course, as listed in the EST syllabus, are understood by me. These objectives are:				
a.	To develop entrepreneurship and employment skills.				
b.	To promote awareness about demands of the world of work.				
c.	To encourage trainees to see self-employment as viable alternative to wage employment.				
7.	Learning activities to be undertaken by students, as outlined in the EST syllabus, are clear to me.				
8.	Notes and suggestions to the teacher for teaching the EST topics are clear to me				
9.	The topics suggested under each competency in the syllabus are clear to me.				

SECTION C – Instructional Organization and Practices
Indicate, with a tick (√), the extent to which each of the following conditions applies in your institute.

Item	Condition relating to organization and practices	Very Often	Often	Sometimes	Never
10	The EST teacher use the topics suggested in the syllabus in planning their lessons				
11.	The EST teacher gives class exercise every week.				
12.	The EST class exercises are marked promptly.				
13.	The EST teacher gives homework every week				
14.	The EST homework are marked promptly				
15.	The EST teacher treats all topics in the syllabus				
16.	Notes given to the students by the EST teacher relates to the course content				
17.	The recommended periods for EST is adhered to by the teachers				

SECTION D – Instructional Strategies

Indicate, with a tick (√) the extent to which your EST teacher employs the following teaching strategy/methods

Item	Teaching Strategies	Very Much	Much	Not Much	Not at All
18.	Field Visit				
19.	Role Play				
20.	Group Discussion				
21.	Debate				
22.	Demonstration				
23.	Project Work				
24.	Lecturing				
25.	Brainstorming among students				
26.	Problem solving by students				
27.	Bring in resource person from outside the institute for course delivery				

SECTION E – Facilities and Instructional Resources

Indicate, with a tick [√], the extent to which you agree with the following statements

Item	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
28.	There are textbooks for teaching and learning EST course in this institute.				
29.	Majority of students have their own copies of the EST textbooks.				
30.	The institute's library holds copies of EST textbooks.				
31.	The library holds reference materials for the EST course				
32.	The institute has adequate classrooms to accommodate students during EST lessons.				
33.	There are adequate students tables and chairs/desks in the classroom for EST lessons				
34.	The institute has adequate qualified EST teachers for the course				
35.	The institute has adequate copies of the prescribed training guide for both teachers and students for teaching and learning of the EST course.				

SECTION F-Perceived Relevance of EST

Indicate with a tick [√] the extent to which you agree with the following statements

Item	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
36.	The EST course should be compulsory in technical institutes.				
37.	Technical students should be taught EST to improve upon their business and management skills				
38.	EST has practical application in the workshop activities of technical students.				
39.	Learning EST in technical institutes will improve students employable skills				
40.	Learning EST in technical institutes will improve students interpersonal and communication skills.				
41.	Learning EST in technical institutes will enhance students' chances of getting employment				
42.	Learning EST in technical institutes will encourage students to consider self-employment opportunities				

43.a. State additional comments on the nature of the EST course.

…….....

……

43b. State any suggestions for improving the implementation of the EST course. …….....

Thank you.

APPENDIX B

UNIVERSITY OF CAPE COAST

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

(VOTEC)

QUESTIONNAIRE FOR TEACHERS

Unemployment of the graduates of the technical institutes is a problem of national concern. It is believed that the graduates lack entrepreneurial skills to help them go into self-employment when they are unable to get wage employment. To address this problem, entrepreneurship skills training (EST) has been introduced as a course in the public technical institutes to train students to acquire entrepreneurial skills.

How effective the course is being implemented is yet to be assessed. Therefore, the aim of this research is to assess the extent to which this EST course is being implemented as outlined in the syllabus developed by the Ghana Education Service in 2002. You are kindly requested to participate in this research by answering the questionnaire.

You are assured that the responses will be treated CONFIDENTIAL

Thank you.

SECTION A-Background Information about Respondents

Complete or tick [√] as appropriate in the spaces provided

1. Name of Institute……
2. Department of the Institute……
3. Indicate with a tick the Teachers Professional Status

   (a) Professional [ ] (b) Non Professional [ ]

4. Tick the highest academic qualification (s) that you posses.

   (I) Advance Craft [ ]

   (II) Technician II [ ]

   (III) Technician III [ ]

   (IV) HND [ ]

   (V) Bachelor Degree [ ]

   (VI) Masters Degree [ ]

   Others Specify……

5. For how many years have you been teaching EST in the technical institute?

   1 [ ] 2 [ ] 3 [ ] 4 [ ] 5 [ ] Over 5 years [ ]

6. Indicate the type (s) of entrepreneurship training you have undertaken.

   (a) i Formal programme [ ]

   ii Number of years……

   iii. Name of programme……

   iv. Name of Institution of programme ……

   (b) i. Formal Institutional Course [ ]

   ii. Name of course (s) ……

iii. Number of credits ……

iv. Name of institutions…….

(c) i. GES Training Workshop [ ]

ii. Year of training ……

iii. Duration of training……

(d) i. Other training in Entrepreneurship [ ]

ii. Name of agency that provided the training ……

iii. Duration of training ……

iv. Sponsored by ……

(e) Self training from Books and Library Reading [ ]

List title of two reference materials used

i. ……

ii. ……

(f) Any other Entrepreneurship Training [ ]

Specify ……

7. Do you need training in entrepreneurship?

Yes [ ] No [ ]

vi. If yes to item 7

(a) State type/nature of training

(b) State two reasons why you need the training

1……

2……

SECTION B. Clarity of Characteristics of the EST Course

Purpose, Objectives and Requirement of the EST Course

Indicate by ticking (√) the appropriate box as to the extent to which each of the following aspect of the syllabus is clear to you.

Item	Characteristic of the EST course	Very Much	Much	Not Much	Not at all
9	It is clear to me that the purpose of the EST course is to reduce employment among technical graduates				
10.	The objectives of the EST course, as stated in the syllabus are understood by me. These objectives are;				
a	To develop entrepreneurship and employment skills				
b.	To promote awareness about demands of the world of work				
c.	To encourage trainees to see self employment as viable alternative to wage employment				
11.	Activities to be undertaken by students as outlined in the syllabus are clear to me				
12.	Notes and suggestions to the teacher for teaching the EST topics are clear to me.				
13.	Topics suggested under each competency in the syllabus are clear to me				

II SECTION B – Other Characteristics of the syllabus

Indicate by ticking (√) in the appropriate space your feelings about the characteristics of the core EST syllabus as stated below;

Item	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
14.	The content of the syllabus is heavily overloaded. (Too much content is expected to be covered).				
15.	The content represents experiences which are not familiar to the students.				
16.	The syllabus presupposes background knowledge and skills that sometimes teachers do not possess.				
17.	The syllabus demands methods which are quiet variance with those used by the average teacher.				
18.	The syllabus makes heavy demands on teachers for planning to teach the EST lessons				
19.	Topics in the textbook conform to those suggested in the syllabus.				
20.	Students find the exercises in the textbook to be difficult.				
21.	The time allotted on the institute's time table for teaching and learning EST is adequate as specified in the syllabus				

SECTION C-The implementation of the EST Syllabus (actual use)

I Instructional organisation and Practices in EST

Indicate, with a tick (√) the extent to which each of the following condition applies in your institute.

Item	Condition relating to organization and Practices in EST	More Often	Often	Sometimes	Never
22.	The EST teachers use the topics suggested in the syllabus in planning their lessons.				
23.	The EST teachers give class exercises every week.				
24.	The EST class exercise are marked promptly				
25.	The teachers gives homework in EST every week				
26.	The EST homework are marked promptly				
27.	The EST teacher treat all topics in the syllabus				
28.	Notes given to students by the EST teacher relates to the course content				
29.	The recommended periods for EST is adhered to by teachers				

II. Application of Recommended Teaching Strategies

Indicate, with a tick (√) the extent to which you employ the following teaching strategies.

Item	Teaching Strategies	Very Much	Much	Not Much	Not at All
30.	Field Visits				
31.	Role Play				
32.	Brainstorming				
33.	Group Discussion				
34.	Problem Solving				
35.	Debates				
36.	Demonstration				
37.	Project Work				
38.	Lecturing				
39.	Resource persons from outside the institute				

SECTION D Facilities and Instructional Resources

Indicate with a tick (√) the extent to which you agree to the following statement.

Item	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
40.	There are textbooks in the institute for teaching and learning the EST course				
41.	Majority of students have their own copies of the EST textbooks.				
42.	The institute's library holds copies of the EST textbooks				
43.	The institute library holds EST materials reference				
44.	The institute has adequate classrooms to accommodate students for the EST course				
45.	The institute has adequate students tables and chairs/desks in the classroom for the EST course				
46.	The institute has adequate qualified EST teachers				
47.	The institute has adequate recommended trainers guide for both teachers and students for the teaching and learning of the EST course				

SECTION E - Factors Affecting Implementation

Indicate, with a tick (√) the extent to which the following factors could affect the implementation of the EST course in your institute.

Item	Factors	Not Seriously	Not Very Seriously	Seriously	Very Seriously
48.	Adequate periods allotted to teach EST in the institutes promotes implementation of the EST course				
49.	Positive attitude of the Principal of the institute towards the EST course promotes implementation.				
50.	In-service training for the teachers promotes implementation of the EST course				
51.	Students interest in EST promotes implementation of the course				
52.	Students background in EST promotes implementation of the course				
53.	Lack of parental support in EST impedes implementation of the course				
54.	Lack of EST course in the pre-service teacher education impedes implementation of the course				

SECTION F – Perceived Relevance of EST

Indicate, with a tick (√) the extent to which you agree with the following statements

Item	Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
55.	The EST course should be compulsory in technical institutes.				
56.	Technical students should be taught EST to improve upon their business and management skills.				
57.	EST has practical application in the workshop activities of technical students.				
58.	Learning EST in technical institute will improve students' employable skills.				
59.	Learning EST in technical institutes will develop students interpersonal and communication skills.				
60.	Learning EST in technical institute will enhance students' chances of getting employment				
61.	Learning EST in technical institute will encourage students to consider self-employment opportunities				

62 (a) State additional comments on the content and delivery of the EST course. ……

……

62 (b) States any suggestions for improving the implementation of the EST course.……

Thank you.

APPENDIX C

Responses of the Respondents about Clarity of objective of EST Course

Purpose and Objective of the EST Course	Extent of Clarity to Respondents									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	Wm	4	3	2	1	Wm
to reduce unemployment	15 (60)	20 (60)	2 (4)	6 (6)	3.02	68 (272)	37 (111)	24 (48)	32 (32)	2.88
develop entrepreneurship and employment skills	25 (100)	11 (33)	5 (10)	2 (2)	3.37	93 (372)	45 (135)	8 (16)	15 (15)	3.34
promote awareness of the world of work	13 (52)	22 (66)	4 (8)	4 (1)	3.02	46 (184)	64 (192)	24 (48)	27 (27)	2.80
encourage self employment as viable wage employment	19 (76)	18 (54)	3 (6)	3 (3)	3.23	77 (308)	52 (156)	11 (22)	21 (21)	3.15

KEY 4 = Very much clear (W) = Weighted responses

3 = Much clear Wm = Weighted mean

2 = Not clear

2 = Not at all clear

APPENDIX D

Respondents Knowledge of Requirement of the EST Course

Aspect of the EST Course	Respondents knowledge of course characteristics									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	Wm	4	3	2	1	wm
(1) students activities	9 (36)		6 (12)	3 (3)	2.93	41 (164)	61 (183)	44 (88)	15 (15)	2.80
(2) Notes and suggestions	6 (24)	24 (72)	9 (18)	4 (4)	2.74	40 (160)	65 (195)	43 (56)	13 (13)	2.81
(3) Topics and competencies		28 (84)	7 (14)	4 (1)	2.74	39 (156)	57 (171)	56 (112)	10 (10)	2.84

KEY 4 = Very much (w) = Weighted responses

3 = Much Wm = Weighted mean responses

3 = Not much

2 = Not at all

APPENDIX E

Table 14

Instructional Organization and Practices in EST course in the Institute as Perceived by the Respondents

Condition relating to organization and practice	Extent of Condition to Respondents									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	(π)	4	3	2	1	(π)
Lessons are planned using topics in the syllabus	21 (84)	18 (54)	4 (8)		3.40	48	45 (192)	36 (135)	32 (72)	2.68
Class exercises are given weekly	6 (24)	22 (66)	15 (30)		2.80	28 (112)	42 (132)	67 (134)	24 (24)	2.46
Class exercises are marked promptly	20 (80)	15 (45)	8 (16)	0 (0)	3.28	48 (192)	44 (132)	33 (66)	36 (36)	2.65
Homework are given weekly	8 (32)	16 (48)	19 (38)		2.74	30 (120)	22 (66)	80 (160)	29 (29)	2.33
Homework are marked promptly	12 (48	24 (72)	7 (14)	0 (0)	3.12	42 (168)	47 (141)	38 (76)	34 (34)	2.60
Topics in the syllabus are all treated	7 (28)	16 (48)	14 (28)	6 (6)	2.56	40 (160)	50 (150)	38 (76)	33 (33)	2.60
Notes to students relates to course content	8 (32)	18 (54)	10 (20)	7 (7)	2.63	87 (348)	36 (108)	19 (38)	14 (14)	3.16

Table 14: Cont.

Condition relating to organization and practice	Extent of Condition to Respondents									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	(π)	4	3	2	1	(π)
Specified periods are followed	14 (56)	21 (63)	8 (16)	0 (0)	3.14	85 (340)	42 (126)	20 (40)	14 (14)	3.23

KEY: 4 = Very often
3 = Often
2 = Sometimes
1 = Never

(W) Weighted responses
(Wm) Weighted mean/average

APPENDIX F

Responses of the Respondents on Teaching Methods and Strategies

Teaching Methods and Strategies	Extent of Application									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	Wm	4	3	2	1	Wm
Field Visit	3	9	17	14	2.02	31	19	27	84	1.98
	(12)	(27)	(34)	(14)		(124)	(57)	(54)	(84)	
Role Play	2	13	28	0	2.40	20	36	51	54	2.14
	(8)	(39)	(56)	(0)		(80)	(108)	(102)	(54)	
Brainstorming Group	7	28	8	0	2.98	19	51	47	35	2.45
	(28)	(84)	(16)	(0)		(112)	(153)	(94)	(35)	
Discussion	7	28	5	3	2.91	19	34	59	49	2.14
	(28)	(84)	(10)	(3)		(76)	(102)	(118)	(49)	
Problem Solving	5	18	16	4	2.56	36	40	54	31	2.50
	(20)	(54)	(92)	(4)		(144)	(120)	(108)	(31)	
Debates	1	8	20	14	1.91	6	28	34	93	1.67
	(4)	(24)	(40)	(14)		(24)	(84)	(68)	(93)	
Demonstration	3	25	15	0	2.72	17	5	76	63	1.85
	(12)	(75)	(30)	(0)		(68)	(15)	(152)	(63)	
Project work	2	7	16	18	1.84	12	31	39	79	1.85
	(8)	(21)	(32)	(18)		(48)	(93)	(78)	(79)	
Lecturing	26	11	6	14	3.79	74	35	35	12	3.00
	(104)	(33)	(12)	(14)		(296)	(105)	(70)	(12)	
Resource Persons Outside Institute	3	9	22	9	1.63	19	33	39	70	2.01
	(12)	(27)	(44)	(9)		(76)	(99)	(78)	(70)	

KEY: 4 = Very much (W) Weighted responses
3 = Much Wm Weighted mean
2 = Not much 1 = Not at all

APPENDIX G

Responses of the Respondents on Availability of Facilities and Instructional Resources

Resources and facilities	Extent of Agreement by Respondents									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	wm	4	3	2	1	wm
The Institute has EST textbooks	2 (8)	14 (42)	21 (42)	6 (6)	2.28	21 (84)	49 (147)	27 (54)	64 (64)	2.17
Students have own copies of textbooks	0 (0)	3 (9)	14 (28)	26 (26)	1.47	19 (72)	33 (99)	41 (82)	68 (68)	1.99
The Institute's Library has EST textbooks	1 (4)	8 (24)	20 (40)	14 (14)	1.91	22 (88)	21 (63)	43 (86)	75 (75)	1.63
The Institute's Library has reference materials	1 (4)	8 (24)	20 (40)	14 (14)	1.91	21 (84)	29 (87)	43 (86)	68 (68)	2.02
The Institute has adequate classrooms	13 (52)	17 (51)	10 (20)	3 (3)	2.93	58 (232)	58 (174)	22 (44)	23 (23)	2.94
The Institute has adequate furniture	15 (60	22 (66)	5 (10)	1 (1)	3.19	79 (317)	47 (141)	17 (34)	18 (18	3.17
The Institute has adequate trainers guide	0 (0)	15 (45)	21 (42)	7 (7)	2.19 -	21 (84)	36 (108)	59 (118)	45 (45)	2.20

KEY: 4 = Strongly Agree
3 = Agree
2 = Disagree
1 = Strongly Disagree

(w) Weighted responses

wm Weighted average/mean responses

APPENDIX H

Teachers and Students Perception of the Relevance of the EST Course

Views on relevance of EST	Extent of Relevance to Respondents									
	No. of Teachers (N = 43)					No. of Students (N = 161)				
	4	3	2	1	wm	4	3	2	1	wm
EST course should be compulsory	31 (124)	10 (30)	2 (4)	0 (0)	3.67	87 (348)	52 (156)	15 (30)	7 (7)	3.36
EST improve business and Management skills	40 (160)	1 (3)	2 (4)	0 (0)	3.88	98 (392)	46 (138)	5 (10)	12 (12)	3.43
EST has practical application in the workshop	16 (64)	22 (66)	4 (8)	1 (1)	3.23	44 (192)	55 (165)	28 (56)	30 (30)	2.75
EST improves students employable skills	29 (116)	10 (30)	2 (4)	2 (2)	3.53	87 (348)	55 (165)	19 (38)	0 (0)	3.48
EST develops students interpersonal and communication skills	28 (112)	11 (33)	3 (6)	2 (2)	3.56	73 (292)	73 (219)	5 (10)	10 (10)	3.30
EST enhances students' chances of getting employment.	23 (92)	13 (39)	4 (8)	3 (3)	3.30	91 (364)	57 (171)	3 (6)	10 (10)	3.42
EST encourages student for self-employment opportunities	30 (120)	9 (27)	2 (4)	2 (2)	3.56	85 (340)	62 (186)	5 (10)	9 (9)	3.39

KEY: 4 = Strongly Agree
3 = Agree
2 = Disagree
1 = Strongly Disagree

(w) Weighted responses
wm Weighted mean/average responses

Hypothesis Testing

In addition to answering the research questions, three hypotheses were tested using the sample t-test to determine whether there were any statistically significant differences between the two groups of the respondents the teachers and the students. The result of the hypothesis tested at 0.05 significance levels are reported in appendix I, J and K.

Hypothesis 1: There is no significant difference between the teachers and students of the clarity about the characteristics of the EST syllabus.

APPENDIX I

T-Test Result on Teachers and Students Clarity of EST Characteristics

Aspect of the EST Course (purpose/objective)	R	NR	Mean	SD	t	df	Sig at 2 tailed	Result
reduce unemployment	T	43	3.02	.988				
	S	161	2.88	1.166	-836	202	.406	ns
Develop entrepreneurship and employment skills	T	43	3.37	.874				
	S	161	3.34	.943	-191	202	.849	ns
Promote awareness of the world of work	T	43	3.02	.886				
	S	161	2.80	1.036	1.406	202	.164	ns
Encourage trainees to see self-employment as viable to wage employment		43	3.23	.868		202	.626	ns
		161	3.15	1.026	-489			
The activities undertaken by students are clear to me		43	2.93	.632	1.095	202	.277	ns
		161	2.80	.930				
Topics and competencies in the syllabus are clear to me		43	2.74	.759	.238	202	.812	ns
		161	2.84	.887				

KEY: ns = Not Significant
* = Significant
T = Teachers
NR = Number of Respondents
R = Respondents
S = Students

Note: With df of 202 at 2 tailed, the significant figures at 0.05 from the table is 1:960. Any t value which is below 1.960 is not significant.

Appendix I indicate that no significant differences were found between the teachers and the students on any of the responses provided on all the six items.

It was therefore concluded that the difference between the teachers' clarity of the EST course objective and requirement and that of the students was not statistically significant.

Hypothesis 2: There is no significant difference between the teachers and the students' perception with regard to the availability of facilities and material resources for the implementation of the EST course.

APPENDIX J

T-Test Result on Teachers and Students Perception on Availability of Facility and Instructional Resources

Statement	R	NR	Mean	SD	t	Df	Sig at 2 tailed	Result
The Institute has EST textbooks	T	43	2.28	.766	-766	202	.445	ns
	S	161	2.17	1.097				
Students have copies of the textbooks	T	43	1.47	.631	-438	202	.000	ns
	S	161	1.99	1.052				
The Institute's Library holds EST textbooks	T	43	1.91	.781	.212	202	.833	ns
	S	161	1.94	1.071				
The Institute's Library has reference materials	T	43	1.91	781	.767	202	.445	ns
	S	161	2.02	1.063				
The Institute has adequate furniture	T	43	3.19	.732	-179	202	.858	ns
	S	161	3.16	.012				
The Institute has adequate classrooms	T	43	2.93	.910	044	202	.965	ns
	S	161	2.94	1.035				
The Institute has adequate qualified EST teachers	T	43	2.21	.709	4.407	202	.000	*
	S	161	2.80	1.011				
The Institute has adequate trainers' guide	T	43	2.19	.699	1.43	202	.887	ns
	S	161	2.20	.994				

KEY: ns = Not Significant NR = Number of Respondents

* = Significant R = Respondents

T = Teachers S = Students

Note: With df of 202 at 2 tailed, the significant figures at 0.05 from the table is 1:960. Any t value which is below 1.960 is not significant.

Appendix J shows that out of the eight items in the questionnaire on availability of facility and material resources, there were no significant differences between the teachers and students in the responses provided on seven of them. One item where significant differences was found between the

teachers and the students was: the institute has adequate qualified EST teachers. The students considered the situation to be more favourable than the teachers. It was, therefore, concluded that the differences between the perceptions of EST teachers and the students on the availability of facility and materials resources were not statistically significantly different except that of adequacy of qualified teachers.

Hypothesis 3: There is no significant difference between the teachers and students perception on the relevance of the EST course.

APPENDIX K

T-Test Result on the Teachers and Student Perception on the Relevance of the EST Course

Statements	R	NR	Mean	SD	t	Df	Sig at 2 tailed	Result
EST course should be compulsory	T	43	3.67	.988	-836	202	.005	ns
	S	161	3.36	1.166				
EST improves business and management skills	T	43	3.88	.874	-191	202	.000	ns
	S	161	3.43	.943				
EST has practical application in the workshop	T	43	3.23	.718	-346	202	.001	ns
	S	161	2.75	1.078				
EST improves students employable skills	T	43	3.53	.797	-914	202	362	ns
	S	161	3.48	.695				
EST develops students interpersonal and communications skills	T	43	3.44	.796	1.042	202	.298	Ns
	S	161	3.30	.805				
EST enhances students chances of getting employment	T	43	3.30	.914	.839	202	.403	Ns
	S	161	3.42	.811				
EST encourages students for self-employment opportunities	T	43	3.56	.796	1.266	202	.208	Ns
	S	161	3.39	.799				

KEY: ns = Not Significant
* = Significant
T = Teachers
NR = Number of Respondents
R = Respondents
S = Students

Note: With df of 202 at 2 tailed, the significant figures at 0.05 from the table is 1:960. Any t value which is below 1.960 is not significant.

Appendix K shows that no significant differences were found between the teachers and the students on any of the responses provided on all the seven items.

It was therefore, concluded that the differences between the EST teachers and the students' perceptions on the relevance of the EST course were not statistically significantly different.

APPENDIX L

GUIDE FOR OBSERVATION

1. Date of visit/Observation ……

2. Name of institute ……

3. Name of Class:……

4. Name of teacher……

5. Highest qualification of teacher …….

6. Type of training in entrepreneurship …….

7. Number of years of teaching EST……

8. The duration of the EST course lesion was: (a) 40 minute (1) one hours (c) 2 hours (d) 3 hours

9. Total maximum/ minimum number of periods or time for the week for …….

10. The number of students in the EST class.

11. Did the EST teacher use teaching aids? Yes [ ] No [ ]

12. Type(s) of Teaching Aids used in the EST lesson

    (a) Video

    (b) Overload projectors

    (c) Flip chart

Others (specify) ……

13. Methods/ strategies use in the class

a. Lecture

b. Discussion

c. Small group

d. Assignment group

e. Project work

f. Debates

g. Demonstration

h. Role play

I. Filed visit

j. Brainstorming

Others (specific)……..

14. Activities students did during the EST lesson

Listening and taking notes

Asking and answering questions

Dosing and inattentive

Others ……

APPENDIX M

RESULT OF OBSERVATION CAPE COAST TECHNICAL INSTITUTE

1. Name of Institute: Cape Coast Technical Institute
2. Name of Class: Painting and Decoration 3
3. Highest Qualification: Advance Craft Certificate
4. Type of entrepreneurship training: In-Service Training
5. Number of years teaching EST: 2 Years
6. Duration of EST lesson" 40mins
7. Total number of periods per week: 1
8. Number of students in class: 25
9. Did the EST teacher use teaching Aid: No
10. Type of instructional material used: EST Trainers Guide
11. Teaching Methods/ Strategies Used in Class: Lecture and discussion method
12. Students activities during EST Class: Listening and taking notes, and asking and answering questions

APPENDIX N

RESULT OF OBSERVATION ASUANSI TECHNICAL INSTITUTE

1. Name of Institute: Takoradi Technical Institute
2. Name of Class: 3rd year Mechanical
3. Highest Qualification: Higher National Diploma
4. Type of entrepreneurship training: Tertiary Institution Course
5. Number of years teaching EST: 3Years
6. Duration of EST lesson: 40mins
7. Total number of periods per week: 1
8. Number of students in class: 42
9. Did the EST teacher use teaching Aid: No
10. Type of instructional material used: EST Trainers Guide
11. Teaching Methods/ Strategies used in Class: Lecture and discussion method
12. Students activities during EST Class: Listening and taking notes, and asking and answering questions

APPENDIX O

RESULT OF OBSERVATION TAKORADI TECHNICAL INSTITUTE

1. Name of Institute: Takoradi Technical Institute
2. Name of Class: 3rd year Automotive
3. Highest Qualification: Higher National Diploma
4. Type of entrepreneurship training: Tertiary Institution Course
5. Number of years teaching EST: 1 Year
6. Duration of EST lesson: 80mins
7. Total number of periods per week: 2
8. Number of students in class: 50
9. Did the EST teacher use teaching Aid: No
10. Type of instructional material used: EST Trainers Guide
11. Teaching Methods/ Strategies Used in Class: Lecture and discussion method
12. Students activities during EST Class: Listening and taking notes, and asking and answering questions

APPENDIX P

RESULT OF OBSERVATION KIKAM TECHNICAL INSTITUTE

1. Name of Institute: Takoradi Technical Institute
2. Name of Class: 3rd year Block laying and Concreting
3. Highest Qualification: Advance Craft
4. Type of entrepreneurship training: In-Service training
5. Number of years teaching EST: 2 Years
6. Duration of EST lesson: 40mins
7. Total number of periods per week: 2
8. Number of students in class: 30
9. Did the EST teacher use teaching Aid: No
10. Type of instructional material used: EST Trainers Guide
11. Teaching Methods/ Strategies Used in Class: Lecture and discussion method
12. Students activities during EST Class: Listening and taking notes, and asking and answering questions