University of Cape Coast https://ir.ucc.edu.gh/xmlui

UNIVERSITY OF CAPE COAST

RELEVANCE OF THE SENIOR HIGH SCHOOL CURRICULUM IN RELATION TO CONTEXTUAL REALITY OF THE WORLD OF WORK

BY

ABRAHAM KWADWO OKRAH

Thesis submitted to the Faculty of Humanities and Social Sciences Education, University of Cape Coast, in partial fulfilment of the requirements for award of Doctor of Philosophy degree in Curriculum and Teaching

CALL No.
ACCESSION No.
0054
CAT. CHECKED | FINAL CHECKED

Sam Jonah LIBRARY
UNIVERSITY OF CAPE COAST
CAPE COAST

MARCH 2016

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

DECLARATION

Candidate's Declaration

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

Candidate's Signature: ..... Date: 19-12-16

Name: Abraham Kwadwo Okrah

Supervisor's 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: 19/12/16

Name: Prof. Y. A. Ankomah

Co-supervisor's Signature: ..... Date: 19/12/16

Name: Rev. Prof. Seth Asare-Danso

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

ABSTRACT

The purpose of the study was to find out the relevance of the senior high school curriculum in relation to the contextual reality of the world of work. The objective was therefore to identify the skills embedded in the curriculum, those skills the learners have acquired and those that employers usually demand of employees. A descriptive case study design was used. In this narrative account, a content analysis of the senior high school curriculum was done in order to determine the skills contained in the curriculum. Through a qualitative research approach and purposive sampling procedure, twenty-one students and fourteen other key informants or employers were selected for an interview. The data from the interview were sorted out into themes and coded through the use of NVivo 8 to help in the counting of frequencies of each skill. It was found out that the senior high school curriculum, though was generally rated as relevant, the skills with the highest frequencies in the curriculum focused on attitudes and values while those required by employers focused on the application of knowledge. The skills with the highest frequencies were those of the affective domain but the highest percentage values suggested in the curriculum constituted those of the cognitive domain. On the basis of these findings, it can be concluded that the curriculum is relevant in instilling values into the students but it is not relevant in the application of knowledge that employers usually demand of employees at the work environment. It is, therefore, recommended that the curriculum be reviewed, if similar findings of this type of research in different contexts are found, to get rid of those mismatches, in order to make it more relevant to the needs of contemporary society.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

KEY WORDS

Context

Curriculum

Reality

Relation

Relevance

World of work

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

ACKNOWLEDGEMENTS

I write to acknowledge the personalities who have made this thesis a reality. I am greatly indebted to my supervisors, Prof. Y. A. Ankomah and Rev. Prof. Seth Asare-Danso, for taking time out of their tight schedule to supervise this thesis. Prof Ankomah, you have been a pillar in every educational effort in my life. Rev. Prof. Asare-Danso, your willingness to take over from Dr. L. Dare, is an inspiration to me. My warmest gratitude goes to Dr. Dare, for helping to provide the structure of this work.

I express my sincere gratitude to Valley View University for showing so much interest in this study. The proceeds from this programme will have a multiple effect on the growth and development of the institution.

My appreciation goes to my Mother, Mad. Akosua Mansah, for her love and care. Mum, I really cherish you so much. Life seems to be meaningless without you.

To my wife and children, what shall I say? The moral support that my wife, Martha Faah Okrah (Mrs), has been giving me from the inception to the accomplishment is beyond description. I thank you very much for your patience all the time. To my children, AB, Ben, Albert and Edie, I say, the hurdling, the hustling and the bustling in voyages purposely for this work are all over. I thank you all.

To all those who have helped me in one way or the other, I say may God richly bless you. Special mention goes to Dr. Felix Opoku and his wife for a special role that they have played during the pursuit and the completion of this programme. I really appreciate your support. Thank you all and God bless you all.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

DEDICATION

To My Family, AB, Bene, Prince, Edie, and Mart

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

TABLE OF CONTENTS

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATION

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

LIST OF TABLES

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

LIST OF FIGURES

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

CHAPTER ONE

INTRODUCTION

Background to the Study

A curriculum is designed at different stages taking into consideration the psychological capabilities of the learners and the skills that are appropriate and are needed to enable the learners of that curriculum to change in behaviour, to further their education, gain employment or go into self-employment. If a large number of students graduate and their wish is to further their education yet they do not meet the admission requirements even though they have qualified, the curriculum or the admission requirements need to be reviewed in order to bridge the gap. Similarly, if students graduate and they want to go into the world of work yet they find it difficult to gain employment or go into self-employment, it may imply that the skills that the students have learnt from the curriculum are not those skills that employers demand of such employees or they might have not learnt the skills that would enable them to initiate their own job. In each case the curriculum needs to be reviewed to relate the skills it contains to the reality at the work place.

The senior high school is a terminating point for the majority of the students (Odamtten, 1996) and it turns out such school leavers without marketable skills to go into employment (Dzobo, 1987, Odamtten, 1996). The unemployment rate in Ghana is becoming alarming (Amankrah, 2014). It is a major concern because it makes one ponder on whether the curriculum contains the skills that make the learners of the curriculum critical thinkers, problem solvers, good communicators, good collaborators, information and technology literate, flexible and adaptable, innovative and creative, globally

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

competent and financially literate (Partnership for 21st Century Skills, 2009). These concerns call for the question of the relevance of the senior high school curriculum.

The theory that underpins curricular relevance includes Reimer's concept of the 'model of the total curriculum' (Reimer, 1980); Meyer, Boli, George and Ramirez's concept of 'converging school systems,' also known as world culture theory (Meyer, Boli, George, & Ramirez, 1997) and Balarin and Benavides' concept of 'diverging school systems,' which is also termed as the theory of anthropology (Balarin, & Benavides, 2010).

Reimer's (1980) 'model of the total curriculum' comprises two phases – the foundation phase and functional phase. The foundation phase encompasses the philosophy of education which relates to psychology and methodology. The functional phase looks at the transformation of philosophy, curriculum conceptualisation and the plan for delivery into actions, the actual experiences provided by the teacher and any others involved in the instruction and the effects of the curriculum on the children. According to Reimer, a curriculum is relevant when a student goes through these processes and enters into the world of work for employment and he or she is able to apply the skills of the curriculum at the work place.

The proponents of the world culture theory, (Meyer, Boli, George, & Ramirez, 1997), argue that school systems are converging. The implication of their argument is that if school systems are converging then there is no need of designing a curriculum based on varied contextual realities. According to them, as nations continue to reform their school systems, they have become more similar in form and structure than before. One identifiable feature of the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

theory is that there is "an increase in common educational principles, policies, and even practices among countries with varying national characteristics" (Chabbott, & Ramirez, 2000, p.173).

Anthropologists, on the other hand, argue that school systems are diverging (Balarin & Benavides, 2010) hence the design of a curriculum should take into consideration contextual realities. They argue that a single model should not be used as a template for organising government, health, institutions, etc. everywhere because of the vast differences of contextual realities. According to them, a curriculum is relevant only when it is contextualised.

Contextualisation, according to Kenea (2014), embraces relating the content, the teaching learning process and the materials to meaningful situations that are relevant to students' lives. A curriculum that is not context-based does not usually meet the needs of the people of the community (Jungck, & Boonreang, 2003). In the early years of education in America, for instance, European curriculum was being imitated in the United States of America but it was later realised that it was outmoded and ill-suited for the people of America (Marsh, & Willish, 2007; Rauginger, Rowe, Piper, & West, 1969). The curriculum was based on the realities in Europe so it needed to be contextualised in America.

These theories of curricular relevance help to shape the thesis of this current study that: *a curriculum that is relevant should relate to the contextual reality of the world of work.* In other words, if students go through a curriculum and they want to work instead of furthering their education, they

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

should be able to use the skills acquired so far to create their own jobs or to gain employment.

There are three strands succinctly stated in the senior high school curriculum. The first is that the curriculum contains enough knowledge and skills to students terminating their education at the end of the senior high school to gain employment. The second is that the curriculum will enable students to go into self-employment. The third strand is that it will help those who do not want to go into the world of work after senior high school to further their education.

The realities on the ground in relation to graduating senior high students are that few are able to further their education while the majority of them, about 90%, are "erroneously referred to as drop outs" (Ghana Education Service [GES], 2010) creating about 60% unemployment among the youth and thus making youth unemployment rate one of the highest (Amankrah, 2014). It is worthy of note that there have been several educational reforms and reviews in Ghana with the purpose of providing skills necessary for descent employment in industries, self-employment and pursuit of further studies (Ministry of Education [MOE], 2002).

There are many issues and concerns that linger around in the minds of many Ghanaians. One would like to find out the type of skills embedded in the school curriculum. Again, one would like to find out whether the skills can be termed as employable skills. Furthermore, one would like to find out the skills that the graduating students have so far acquired prior to their graduation for them to be able to enter into the world of work. Finally, one would like to find out the skills that employers demand of employees.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Statement of the Problem

Many attempts have been made to search for relevance of the senior high school curriculum. This search for curricular relevance has continued to elude Ghanaians (Mankoe, 2002). The educational system turns out school leavers without marketable skills to go into employment (Dzobo, 1987, Odamtten, 1996). About 60 percent of the unemployed in Ghana can be found in the 15 – 24 years age group, (senior high school graduates inclusive), thus making Ghana's youth unemployment rate one of the highest in the world (Amankrah, 2014).

Research shows that only about 10% of school children passing through junior high school (JHS) to senior high school (SHS) gain admission to the universities with the remaining 90% being "erroneously referred to as dropouts" (MOE, 2002, p. 148). The cause of this problem stems from the fact that the educational system has been concentrating more on "job training" of students but not "job readiness" of students (Anderson, & Gantz, 2013, MOE, 2002).

The educational system seems not to focus on "the acquisition of knowledge and skills that also equip individuals for self-employment" (MOE, 2002, p. 81) and employment in general. Meanwhile, GES (2010) states in all the syllabi that all the subjects of the senior high school programme have been designed to offer enough knowledge and skills to students terminating their education at the end of senior high school to gain employment, go into self-employment or further their education. Ministry of Education, Youth and Sports (2004) emphasises that "the senior high school system should be organised both as terminal education for entry into the world of work and as a

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

preparatory stage for entry into tertiary education" (p. 21). The question worth asking is: "Is the SHS graduate well equipped with curricular skills to enable him/her go into employment or self-employment? Is the curriculum rich in work related skills or job readiness skills that may make it relevant?

Ministry of Education (2002, p. 129) describes the scenario by saying that there is "hue and cry over the type of education delivery at this level" [SHS level]. Again, Ministry of Education, Youth and Sports (2004) categorically states that the most serious deficiency about the second cycle education as a terminal education is that the system does not cater for the majority of the 15 year olds who, coming out of comprehensive and compulsory basic education programmes, have to be prepared and launched into the adult world of work. The relevance of the SHS curriculum is, therefore, questionable because it is the perception of the researcher that a curriculum that is relevant should be responsive to the challenges of the graduating students of that curriculum.

The senior high school curriculum has been looked at in terms of the fidelity approach to its [English curriculum] implementation (Okrah, 2002). Many researchers have investigated into the contextual reality of the curriculum in terms of politics (Otunga, & Nyandusi, 2013), culture (Balarin, & Benavides, 2010), and socio-economics (Cornbleth, 1988). Others have also looked at it with regard to its benefits (Anamuah-Mensah, Asabere-Ameyaw, & Denis, 2007). Another area of concern of researchers about curriculum is the context specific of curriculum design (Anderson-Levit, 2003). Again, some researchers have studied the skills requirements of students and the design of the curriculum (Anderson, & Gantz, 2013). Many researchers

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

studied the causes of unemployment without looking at the curriculum as a possible major cause (Ekwueme, Ofah, Uchegbu, Anyiku, & Nkemdirim, 2009).

It is interesting to note that there has not yet been any study on the exploration of the number and nature of skills embedded in the senior high school curriculum. Again, there has not been any study on the relationship between the skills in the senior high school curriculum and the skills that employers demand of employees. In addition, there has not been any study on the skills in the curriculum and those that the graduating students have acquired so far. This study therefore sought to establish the skills in the curriculum, the relevance of such skills, the skills that employers demand of employees and the level of acquisition of skills by graduating senior high school students. The study intends to fill in the gap of the relevance of the curriculum in relation to contextual reality of the world of work.

Purpose of the Study

Generally, the purpose of the study was to find out the relevance of the senior high school curriculum in relation to the challenges that students face in the world of work. Specifically, however, the study's objectives were to find out the skills the curriculum contained that could be imparted to the students to enable them to gain employment or go into self-employment; the skills from the curriculum that the senior high students had acquired to enable them to gain employment or go into self-employment; the views of employers on the relevance of the skills contained in the curriculum; the skills that employers usually demanded of employees when they were employing them.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Research Questions

Research questions are vehicles that drive case studies (Yin, 1994). The following research questions were used for this current study.

1. What kind of skills does the curriculum contain that could be imparted to the students to enable them to gain employment or go into self-employment?
2. What skills do the senior high school students acquire to enable them to secure employment or go into self-employment?
3. What are the views of employers on the skills contained in the senior high school curriculum?
4. What do human resource experts in industries perceive to be the ideal work related skills that graduates of the senior high school require to enable them to gain employment or go into self-employment?

Significance of the Study

The relevance of a curriculum in response to problems in the society is crucial because a curriculum is designed to help solve problems in society and for progress. The identification of the problems is the very foundation of the design of curriculum. Any curriculum that is designed external to the internal trends of issues is therefore bound to fail to achieve relevance. The findings of this study will establish the relevance or otherwise of the senior high school curriculum in response to trends of issues in the country.

The results of the study will be of importance to the stakeholders of education in Ghana and abroad. The findings will inform curriculum designers about the trends of issues that relate to curriculum design in the country.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Furthermore, the findings will draw the attention of policy makers to policies that relate to curriculum design. They will be informed about the need for intensive collaborative work with curriculum designers.

Finally, the results of the study will contribute immensely to the theory of curriculum contextualisation and/or de-contextualisation. Curriculum in context and out of context has become a new trend of debate upheld by anthropologists (focusing on contextualisation) and sociologists (focusing on institutionalisation or world cultures).

Delimitation of the Study

The study was confined to issues relating to the relevance of a school curriculum in response to reality of the world of work. It sought to find out whether the senior high school curriculum was responsive to contextual realities.

The informants of the study were selected from two major sectors of the economy: education and industry. Students were selected because they served as the clienteles of the curriculum. Experts or employers from organisations were also selected for the study in order to ascertain the skills that were needed at the work environment. Content analysis was also done to come out with the skills contained in the curriculum.

Limitations of the Study

The study used a descriptive single case design. Descriptive method usually relies on interviews and observation as a means of collecting data (Clarke, 2005). The design of current study sought to use interviews and content analysis for data collection. Such a design may have some shortcomings of internal validity in terms of the authenticity of informants'

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

responses. An attempt was, however, made to control reliability. This was done by having a highly structured interview with the same format and sequence of words and questions for each respondent (Silverman, 1993), though controlling the wording was no guarantee of controlling the interview (Scheurich, 1995), since wording is basically about attitudinal questions rather than factual questions (Oppenheim, 1992).

Another limitation of the study is the external validity, thus, the generalisability of the findings. Research shows that generalisability in naturalistic or case study research is only possible with comparisons of typicality of situations – the participants and settings – to identify possible comparison groups, and to indicate how data might translate into different settings and cultures (Cohen, Manion, & Morrison, 2007; Eisenhart, & Howe, 1992; LeCompte, & Preissle, 1993; Lincoln, & Guba, 1985).

The main instruments the researcher used in gathering data were interview guides and theme identification guide of content analysis. Interviewers usually bring about biases due to their characteristics and their prior experiences. Authenticity can be achieved if the biases in the characteristics of the interviewer, the characteristics of the respondent and the substantive content of the questions are minimized (Cohen, Manion, & Morrison, 2007). Cohen, Manion and Morrison posit that interviewers and interviewees alike bring their own, often unconscious, experiential and biographical baggage into the interview situation. The interviewer may have interpersonal and human interaction making him/her non-neutral (Hitchcock, & Hughes, 1989), hence the "neutrality of the interview is a chimera" or a figment of an imagination (Denscombe, 1995).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Definitions of Terms

Contextual realities: In the context of this study contextual realities refer to the identification of the needs that can inform the design of a curriculum.

World of work This refers to a working environment where graduating students of the senior high school may apply the skills acquired during their stay in school.

Culture: Culture is defined as the "operating procedures, shared meanings and beliefs, and norms, including goals and priorities." (Cornbleth, 1988, p. 93).

Relevance: In this study relevance refers to the external effectiveness or usefulness of the curriculum.

Organisation of the Study

The study comprises five chapters. The first chapter, Chapter One, comprises the background to the study, statement of the problem, purpose of the study, research questions, significance of the study, delimitations and limitations of the study, definition of terms and finally, the organisation of the study.

Chapter two is organised under conceptual, theoretical and empirical reviews. Conceptual review comprises conceptual base of the study and the concept of curriculum. It further looks at secondary education in Ghana, overview of senior high school curriculum, the philosophy of education in Ghana, the aims of senior high school education, the senior high school

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

subjects, the teaching syllabi of the senior high school curriculum and the profile dimensions in the curriculum. The conceptual review concludes on the state of the senior high school curriculum and the demand for senior high school education.

The theoretical review also consists of the theoretical framework of the study, the foundation of curriculum theory, reconceptualisation and post-reconceptualisation of curriculum theories. It further looks at the classification of curriculum theories, curricular reality theory and theory of contextual realities. The review also examines world culture theories and contextual realities, anthropologists and contextual realities and it concludes on designing a relevant curriculum and the relevance of the review of curriculum theories.

The empirical review, on the other hand, comprises studies on senior high school level and the job market. The review further looks at curriculum change and contextual realities, contextual realities of a curriculum and it concludes on the need for curricular relevance.

The central theme of chapter three is the methodology. It begins with an overview of the chapter and covers topics such as the research design, the study area, target population, sample and sampling procedures, sample size determination, unit of analysis, data collection instruments and data collection procedures, theoretical propositions and it culminates with data analysis.

Chapter four focuses on results and discussion. It begins with an overview of the chapter and embraces topics such as the content analysis of the senior high school curriculum, the generic skills of all the seven programmes and the core subjects, discussion of the generic skills, the frequency of skills of the core subjects, students' acquisition of skills from the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

curriculum, interview of students in terms of their focused life history, details of their experiences and the reflection on the meaning of students' experiences. The chapter further looks at the closed quantitative interview of students in terms of students' acquisition of skills in each of the seven programmes, the discussion of the skills that the students have acquired.

The chapter continues to look at employers' views on the relevance of the senior high school curriculum in terms of their rating of the skills in the curriculum and the skills they demand of employees. In addition to this, the chapter further looks at the discussion of the skills employers demand of employees, a comparison between the skills students have acquired and those that employers demand of employees. The chapter also puts into consideration the theoretical propositions whether to reject them or fail to reject them.

The fifth chapter concentrates on the summary, conclusions and recommendations. The chapter opens with an overview of the study and settles on the key findings. The conclusion looks at the position of the researcher regarding the research questions and the theoretical propositions. It also includes the researcher's overall opinion regarding the study in terms of what the study has brought to the fore. The chapter concludes on the recommendations based on the research findings as well as recommendations for policy and practice.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

CHAPTER TWO

REVIEW OF RELATED LITERATURE

Overview

Curricular relevance is of uttermost importance to professionals and educationists. The deciding factor of the relevance of a curriculum is of three fold: the skills in the curriculum, the learner who is to acquire those skills in the curriculum and the society where the skills would be applied. This triad process is very crucial in any educational set up.

The skills in the curriculum are derived from the society. They are based on the current trend of issues in the society. Whatever happens in the society therefore informs the designers of the curriculum as to what skills should go into it in order to resolve whatever problem that emerges.

Similarly, the learner of the skills in the curriculum needs to be well equipped to enable him or her confront the societal problems. If the learner acquires the skills that are not relevant in solving the societal problems then those skills are not worth their salt.

In the assessment of the senior high school curriculum in terms of its relevance to the contextual reality of the world of work, the skills that are embedded in the curriculum need to be explored, identified and established. Again, it is equally important to find out the skills that the learners have acquired out of those skills in the curriculum. Finally, it is crucial to find out the applicability of the skills in the society. This is the basis of this chapter.

The chapter, therefore, focuses on the key concepts under the conceptual review. It also delves into the theory of curriculum under the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

theoretical review and finally, it explores existing studies that relate to the current study and this is made up of the empirical review.

Conceptual Review

In this conceptual review, the basic concepts of the study such as the conceptual base of the study and the concept of curriculum are outlined. The review further looks at secondary education in Ghana, overview of senior high school curriculum, the philosophy of education in Ghana, the aims of senior high school education, the senior high school subjects, the teaching syllabi of the senior high school curriculum and the profile dimensions in the curriculum. The review concludes on the state of the senior high school curriculum and the demand for senior high school education.

Conceptual Base of the Study

The conceptual framework of the current study is derived from Reimer's (1980) model: 'A model of the total curriculum.' Bennet Reimer developed an Aesthetic Education Curriculum through the Education for Aesthetic Awareness Project (E.A.A) which could be applied to any curriculum. The thesis of the current study states that 'a curriculum that is relevant should be responsive to the challenges of the graduating student of that curriculum.' The following is the Reimer's (1980) original model of the total curriculum as presented in Figure 1 below:

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

I. Foundational Phase

A. Idealized Component
"Why should this be taught?"

B. Conceptualized Component *C. Systematized Component*
"What must be done to organize, both generally and specifically, to teach this most effectively?"

II. Functional Phase

A. Interpreted Component
"How is the Foundational Phase understood?"

B. Operational Component
"How are appropriate experiences provided?"

C. Experienced Component
"How is the learner affected?"

III. Contributory Factors

A. Expectations
The belief system within which the curriculum operates

B. Conditions
The practical conditions under which the curriculum operates

Figure 1. Reimer's (1980) Model of the Total Curriculum

Source: Reimer, B. (1980). *Building an aesthetic education curriculum: A model and its application*. Carolina: University of North Carolina Press.

The current study hinges on this model as could be seen in Figure 2. It begins with the philosophy of education and delves into the curriculum that expresses this philosophy. The expectations of the stakeholders and the conditions under which the transaction of the curriculum could be made through the provision of appropriate experiences follow and it culminates in

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

the external effectiveness in terms of the learners' interaction with the world of work.

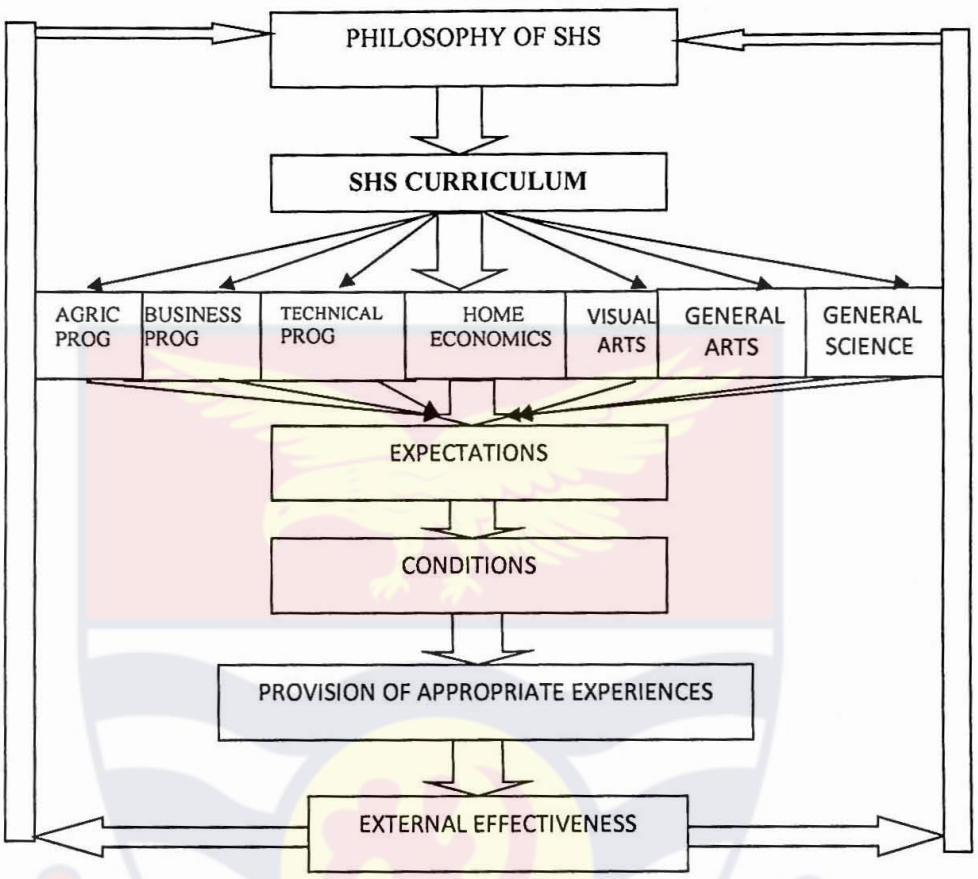

Figure 2. Conceptual Framework

The philosophy of the senior high school serves as the basis for objectives, for content, for sequence, for instruction, for evaluation, for justification of the curriculum (Reimer, 1980). The philosophy must be in consonance with the generally approved values. It is this same philosophy that must determine the kind of knowledge necessary for studies. This worthwhile knowledge is expressed in the curriculum through the various programmes.

The curriculum is organised around seven elective programmes – Agriculture, Business, Technical, Home Economics, Visual Arts, General Arts and General Science. This shows a diversified curriculum, a sign of moving

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

away from the grammar type of education to the vocationalisation of education.

The diversified curriculum has given hopes and expectations to the stakeholders about the future of the graduating students of the curriculum. The belief system within which the curriculum operates, among many other things, is that the graduating students will either go for employment, self-employment or to further their education (MOE, 2002). The confirmation of the expectations or otherwise will depend on the practical conditions under which the curriculum operates. Community support is necessary. Teaching and learning resources with practical orientations are necessary conditions. Bringing the world of work into the classroom and taking the classroom to the world of work is crucial (ACARA, 2013).

It is very important to note that the provision of appropriate experiences will be dependent on practical conditions available. The higher the quality of the resources and the qualification of the teacher, the higher the appropriate experiences expected to be provided. Whatever be the form of the experiences the clientele is the student, the last consumer, who is affected either positively or otherwise. After going through the experiences, the student enters into the world of work for employment which will depend upon the sort of skills the curriculum offered him/her, hence the external effectiveness.

The Concept of Curriculum

Many scholars in the field of curriculum admit the difficulty of the definition of concept because the term has been used with quite different meanings ever since it was considered as a field of study (Glatthorn, Boschee, & Whitehead, 2006; Marsh, & Willis, 2007). Marsh and Willis view the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

concept 'racecourse,' the Latin root of the term curriculum, as perhaps the most common definition that one can derive because "for many students the school curriculum is a race to be run, a series of obstacles or hurdles (subjects) to be passed" (p. 8).

There have been many attempts by scholars to classify the numerous definitions of curriculum. Some scholars classify them into prescriptive, descriptive, or both (Glatthorn, Boschee, & Whitehead, 2007), while others look at them as generative (Tanner, & Tanner, 2007). Ellis (2004, p. 4) looks at prescriptive definitions of curriculum as providing "what 'ought' to happen, and they more often than not take the form of a plan, an intended programme, or some kind of expert opinion about what needs to take place in the course of study" while the descriptive definitions are not about merely "how things ought to be ... but how things are in real classrooms" (p. 5). A descriptive definition of a curriculum is basically an experience curriculum (Glatthorn, Boschee, & Whitehead, 2007). Prescriptive and descriptive curriculum definitions differ in breadth and emphasis. Both are chosen based on their representativeness as shown in Tables 1 and 2 respectively.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 1 - *Prescriptive Definition of Curriculum*

Author	Definition
John Dewey (1902, pp. 11-12)	Curriculum is a continuous reconstruction, moving from the child's present experience out into that represented by the organised bodies of truth that we call studies ... the various studies ... are themselves experience – they are that of the race.
Frankllin Bobbitt (1918, p. 43)	Curriculum is the entire range of experiences, both directed and undirected, concerned in unfolding the abilities of the individual; or it is the series of consciously directed training experiences that the schools use for completing and perfecting the unfoldment.
Harold O. Rugg (1927, p. 8)	[The curriculum is] a succession of experiences and enterprises having a maximum life-likeness for the learner ... giving the learner that development most helpful in meeting and controlling life situations.
Hollis Caswell in Caswell & Campbell (1935, pp. 66, 70)	The curriculum is composed of all the experiences children have under the guidance of teachers ... Thus, curriculum considered as a field of study represents no strictly limited body of content, but rather a process or procedure.
Ralph Tyler (1957, p. 79)	[The curriculum is] all the learning experiences planned and directed by the school to attain its educational goals.
Hilda Taba (1960, p. 11)	A curriculum usually contains a statement of aims and of specific objectives; it indicates some selection and organization of content; it either implies or manifests certain patterns of learning and teaching ... Finally, it includes a program of evaluation of the outcomes.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 1 (Continued)

Robert Gagne (1967, p. 23)	Curriculum is a sequence of content units arranged in such a way that the learning of each unit may be accomplished as a single act, provided the capabilities described by specified prior units (in the sequence) have already been mastered by the learner.
James Popham & Eva Baker (1970, p. 8)	[Curriculum is] all planned learning outcomes for which the school is responsible ... Curriculum refers to the desired consequences of instruction.
J. L. McBrien & R. Brandt (1977)	[Curriculum] refers to a written plan outlining what students will be taught (a course of study). Curriculum may refer to all the courses offered at a given school, or all the courses offered at a school in a particular area of study.
Michael Schiro (1978, p. 28)	The word *Curriculum* means output of the curriculum-development process that is intended for use in planning instruction.
J. Galen Saylor & William M. Alexander in Saylor, Alexander & Lewis (1981, p. 28)	Curriculum is a plan for providing sets of learning opportunities for persons to be educated.
Catherine Cornbleth (1990)	The curriculum is not a tangible product, but the actual day-to-day interactions of students, teachers, knowledge, and milieu.
Alan Block (1998)	Curriculum is a prescribed body of knowledge and methods by which it might be communicated.

(Source: Glatthorn, Boschee, & Whitehead, 2007; Marsh, & Willis, 2007; Tanner, & Tanner , 2007)

A critical look at the definitions reveals a particular pattern that can be related to the evolution of curriculum thought. The definition of curriculum before Tyler (1949, 1957) focused on the broadening of students' experiences. Bobbitt (1918), who earlier on proposed the creation of an academy that

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

would emphasise training in practical subjects, championed this move. This was the time when emphasis on the three focal points – the learner, the society and the subject specialists – had not attained any balance. Even though it was Tyler who established a clear balance among the three focal points, his definition did not clearly outline the four main stages of curriculum that he proposed though they are implied – the objectives, selection of learning experiences, organisation and evaluation. His definition looks at learning experiences, planned and directed (organisation), and educational goals (objectives and evaluation).

It was the definition by Taba (1960) that actually spelt out all the stages in her curriculum model – statements of aims (diagnosis of needs), specific objectives (formulation of objectives), some selection and organisation of content (selection and organisation of content) and programme of evaluation of the outcomes (evaluation). Her definition of curriculum is actually based on her model.

The remaining definitions after Taba (1960) focused on the sequence of content units (Gagne, 1967), desired consequences, thus, evaluation (Popham, & Baker, 1970), providing set of learning opportunities (Saylor, Alexander, & Lewis, 1981) and written plan outlining what students will be taught (McBrien, & Brandt, 1997). In short, the definition has moved away from expanding the curriculum to cover the interests of students to a careful organisation of content in order to attain desired outcomes.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 2 - *Descriptive Definition of Curriculum*

Author	Definition
Hollis Caswell & Doak Campbell (1935)	All the experiences children have under the guidance of teachers
Thomas Hopkins (1941)	Those learnings each child selects, accepts, and incorporates into himself to act with, on, and upon, in subsequent experiences.
W. B. Ragan (1960)	All experiences of the child for which the school accepts responsibility.
Glen Hass (1987)	The set of actual experiences and perceptions of the experiences that each individual learner has to his or her program of education.
Daniel Tanner & Laurel Tanner (2007)	The reconstruction of knowledge and experience that enables the learner to grow in exercising intelligent control of subsequent knowledge and experience.

(Source: Marsh, & Willis, 2007; Tanner, & Tanner, 2007)

Many scholars have their own perspective for defining curriculum. For instance, Tanner and Tanner's definition was derived from Dewey's (1916, pp. 89-90) definition of education as "that reconstruction or reorganization of experience which adds to the meaning of experience, and which increases ability to direct the course of subsequent experience." Glatthorn, Boschee and Whitehead (2007) and Marsh and Willis (2006), after critically analysing the prescriptive and descriptive definitions, define curriculum respectively as:

> The curriculum is the plans made for guiding learning in the schools, usually represented in retrievable documents of several levels of generality, and the actualization of those plans in the classroom, as experienced by the learners and as recorded by an observer; those

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

experiences take place in a learning environment that also influences what is learned (p. 5)

According to them curriculum is "an interrelated set of plans and experiences that a student undertakes under the guidance of the school" (p. 15). The definitions by Glatthorn, Boschee and Whitehead (2007) and Marsh and Willis (2006) can also be classified among those definitions that focus on organisation of content and learning experiences. These definitions support the argument that the stages of the evolution of the curriculum determine the definition one gives. These stages can be simplified as the narrow nature and period of the curriculum followed by the desire to expand the curriculum in terms of vocationalisation and finally, the focus on organisation in order to maximise learning.

Secondary Education in Ghana

The definition of secondary education had not been definite until in 1902 when Arthur Hadley made a proposition for the acceptance of a definition of secondary education. Hadley (1902, p. 732) defines secondary education as "all those studies which are regarded by the public as too far advanced to be a part of that compulsory education which it strives to furnish all its citizens, and which are at the same time not sufficiently specialised in their purpose or aim to be considered part of the technical preparation of different groups of citizens for their several callings in life."

In distinguishing secondary education from primary and technical, Hadley (1902) says that secondary education is less universal as compared to primary education but it is general rather than specific in its object as compared to technical education. Again, while primary education aims to

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

secure the necessary level of general intelligence, technical education aims to secure the necessary level of professional intelligence with secondary education aiming at something in excess of both minima of primary and technical education.

The secondary education in Ghana fits perfectly into the definition of secondary education by Hadley (1902). Secondary education in Ghana is far more advanced and less universal than primary education but it is more general though less specialised than technical education. It began as a grammar type of education borrowed from Britain.

The first curriculum in Ghana which was basically religious in nature was designed in 1529 by the Governor at Elmina through an order from King John III of Portugal, and it comprised Reading, Writing and the Holy Scriptures (Graham, 1976). There was no change in the content of the curriculum when the Dutch in 1639 seized the castle at Elmina. It was in 1712, under the chaplaincy of Thomas Wenden that the content of the curriculum was modified to comprise Reading, Writing and Music. Music was replaced with Arithmetic in 1815 under the tutelage of Charles Williams, a mulato, who was appointed by the Merchant Company. During this time, the educational system was not properly organised.

A well-structured and diversified curriculum began in 1928 as a result of the Education Ordinance that was passed in 1925 (Education Ordinance 1925). The curriculum by then comprised Religion, Writing, Reading, House Craft, Spinning and Weaving for the first school for girls in Navrongo (Graham, 1976). Technical education was promoted and trade schools were opened in Asuantsi (near Cape Coast), Kibi (in Abuakwa) and Mampong (in

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Ashanti). The curriculum comprised agriculture, masonry, metal work and woodwork (which were taught literally, practically and theoretically), Arithmetic, Drawing, Hygiene, Nature Study, History and Geography. According to Graham (1976, p. 85), "employment was found for those who successfully completed their training." The curriculum continued to be diversified in the 1930s, and it depended on the type of school to be established. Taking Mfantsipim and Achimota secondary schools as examples, the differences can be seen in Table 3.

Table 3 - *The Curriculum of Mfantsipim and Achimota in 1930*

Mfantsipim	Achimota	
Mathematics	Mathematics	Music
English	English	Art
Latin	Latin	Hygiene
Commercial subjects	Vernacular	Practical work
	Woodwork	Woodwork

(Source: Graham, 1976)

The changes in the secondary education curriculum were happening side by side with technical schools. For example, Government Technical School in Accra consisted of the following curriculum: Mechanical Engineering, English, Mathematics (Mensuration, Algebra, Geometry, Trigonometry), Mechanics, Experimental Science, Engineering, Building Science together with part-time courses such as Drawing Design, Building Construction, Heat and Heat Engines, Workshop Processes (Graham, 1976).

The change in curriculum continued till 1937 when a Committee was formed to examine the existing educational system in the Gold Coast and to make recommendations where necessary for its modification. One of the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

major recommendations was that the secondary school curriculum should be brought into closer relation with the national life and needs, and that curriculum of the senior primary (senior secondary) should be organised around Agriculture, Fishery or a Craft or Crafts, with emphasis on Domestic Science for girls. The World War II of 1939, however, delayed the full implementation of the Report (Graham, 1976). It was in 1951 that the Accelerated Development Plan for Education that Nkrumah laid before parliament was passed into educational law.

The Accelerated Development Plan for Education could have brought a major paradigm shift for contextualising the school curriculum but the curricula for basic and senior primary (senior secondary) schools were similar to those used in schools in the United Kingdom, even though the need was recognised to relate teaching to the community which was to be reflected in the syllabus (Graham, 1976). Ghana was then caught in the web of world institutionalisation. She began to follow the institutionalisation of worldwide models of equality, socio-economic progress, and human development. In this situation, if a specific nation-state, like Ghana, is unable to put proper policies in place, perhaps due to costs, incompetence, or resistance, world-society structures will provide help (Meyer, Boli, George, & Ramirz, 1997).

Since independence in 1957, Ghana has undergone three major educational reforms and six notable education reviews. Tonah (2006) identifies the three major educational reforms as the 1961, 1967 and 1987 and four of the six notable education reviews as the 1966, 1974, 1993 and 2002. The remaining two education reviews took place in 2007 and 2008.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The aim of these educational reforms was to provide the relevant type of education that was suitable for the developmental needs of the country. It is, however, unfortunate that the relevant type of education required continues to elude Ghanaians (Mankoe, 2002). Tonah (2006) sees the recurrent calls for reforming the education systems as the failure of the reforms to deliver upon their promises.

The first major educational reform, since independence, was the 1961 education Act (Act 87) and the most important section of the Act was the one which gave legal effect to education at the primary level to make it free and compulsory (Mankoe, 2002; McWillliam, & Kwamena-Poh, 1975). The 1961 education reform could not provide the socio-economic needs of the country hence the 1967 education reform under the chairmanship of Professor Alex Kwapong. The major focus was on administration and management of education in the country (Mankoe, 2002). There was dissatisfaction with the structure and content, hence the appointment of the 1972 education review committee under the chairmanship of Professor N. K. Dzobo. The committee's recommendations, published in 1974, were implemented on pilot basis until 1987 when another major reform spread its implementation nationwide.

The Committee of the 2002 education review (The Anamuah-Mensah Review Committee) outlined the principles that should guide the development and design of curricula in Ghana to make them more contextualised and relevant. One of such principles was based on the fact that "Ghana's educational system has in the past concentrated more on training people to get employment rather than getting self-employed" (MOE, 2002, p. 80). This implies that the curriculum by then was out of context. In view of this, "The

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

educational system should emphasize the acquisition of knowledge and skills that also equip individuals for self-employment." (p. 81). This suggests the contextualisation of the curriculum.

In order to help the graduating students gain employment, the curriculum was diversified to comprise seven elective programmes namely Agriculture, Business, Technical, Home Economics, Visual Arts, General Arts and General Science. Additional subjects were suggested in the Anamuah-Mensah educational review Committee Report so that the curriculum would be more relevant. It was, therefore, assumed that the senior high school students who had gone through this curriculum and were graduating were likely to be well equipped for employment.

The major concern of the researcher, however, is the high rate of youth unemployment. The graduating senior high school students fall within the youthful age of 15 and 24. In Ghana, the 15 to 24 age group is split into two: 15 – 19 and 20 – 24 (National Youth Policy of Ghana, 2010), and most of the senior high school graduates fall within the 15 and 19 age group. Meanwhile, about 60 percent of the unemployed in Ghana can be found in the 15 – 24 years age group, thus making Ghana's youth unemployment rate one of the highest in the world (Amankrah, 2014). According to the 1960, 1970, 1984 and 2000 Population Censuses of Ghana, for example, the youth unemployment rates of the age group of 15-19 were 40.1, 39.8, 37.7, and 17.0 respectively. Many interventions undertaken to address the problem of youth unemployment excludes the contextualisation of the curriculum. Meanwhile, it is at "the second-cycle or post-primary educational institutions that the real skills necessary for achieving economic growth and raising living standards

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

are taken care of" (Odamtten, 1996, p. 17). It is, therefore, doubtful if the senior high school curriculum is relevant considering the secondary school, as Odamtten puts it, as "the end of education of a vast majority of young people" and the alarming rate of unemployment of the products of such a curriculum. Surprisingly enough, according to GES [Teaching Syllabi] (2010), all the subjects of the programmes have been designed in such a way that they will offer enough knowledge and skills to students terminating their education at the end of senior high school to gain employment, and at the same time they offer adequate foundation for those who will pursue further education in their areas of interests.

It appears that the focus of the senior high school curriculum on getting graduating senior high school students employment or self-employment is faced with serious challenges. It is, therefore, the interest of the researcher to investigate into such challenges.

Overview of Senior High School Curriculum

The senior high school curriculum comprises both elective and core subjects. The combination of the elective subjects represents a programme. There are seven programmes in all, and these are Agriculture, General Science, Technical Drawing, Business, General Arts, Visual Arts and Home Economics. In addition to these seven programmes, there are five core subjects. The core subjects are the English Language, Mathematics, Integrated Science, Social Studies and Information and Communication Technology (ICT).

In this overview of the senior high school curriculum, two major issues are looked at. First, the overall curriculum in terms of philosophy and aims is

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

explored. Second, the components of the curriculum in terms of the separate programmes are also looked at.

Philosophy of Education in Ghana.

The foundation of education is its philosophy. The philosophy is based on prevailing circumstances within and outside the country. For instance, poverty posed a serious challenge in the 1980s, so during the 1987 educational reform, the philosophy focused on "poverty alleviation and wealth creation" (MOE, 2002, p. 20).

The challenges encountered during the 2002 education review were not the same as those encountered in the 1980s. There were both global and internal challenges so the youth needed to be prepared to enable them to confront socio-cultural, industrial, economic and political challenges facing them. Among the global challenges were the formation of human capital for industrial growth and for ensuring competitiveness in the global economy; ability to make use of recent developments in Science and Technology, especially Information and Communication Technology (ICT); radical transformation in the field of work and employment; advances in cognitive sciences and their effect on pedagogical approaches; and threat to preservation of cultural identity and traditional indigenous knowledge and creativity (MOE, 2002, p. 77).

The internal challenges that have major impact on education include ensuring 100% access to basic education; improving quality of instruction and making it flexible enough to accommodate diverse student abilities; placing high premium on technical/vocational education and training; improving management and supervision; reducing rural-urban and city-inner-city

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

disparity in educational provision; provision of infrastructural facilities and adequately resourced laboratories, workshops and classrooms; making tertiary education relevant to the world of work; enriching the curriculum by including issues such as citizenship education, democracy, peace education and HIV/AIDS; revitalising moral and ethical values to address moral decline; and reducing unemployment, underemployment, violence and drug abuse (MOE, 2002).

It was on the basis of these global and internal challenges that a new philosophy was needed to help the youth to respond to such challenges. The philosophy was adopted after a critical examination of the challenges and the national development goal of improving "the quality of life of all Ghanaians by reducing poverty, raising living standards through a sustained increase in national wealth and a more equitable distribution of benefits there from" (Ghana Poverty Reduction Strategy Plan, 2002 – 2004, (GOG, 2002, p. 1).

The philosophy that underlies the education system in Ghana currently is the "creation of well-balanced (intellectually, spiritually, emotionally, and physically) individuals with the requisite knowledge, skills, values and aptitudes for self-actualisation and for the socio-economic and political transformation of the nation" (Ministry of Education, 2002, pp.20, 79).

Aims of Senior High School Education.

The overall aims of education are more or less like high sounding national mission statements (White, 2004). For example, England adopted a balanced and broadly based national curriculum for secondary education in 1988 which "promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society, and prepares such pupils

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

for the opportunities, responsibilities and experiences of adult life" (Maclure, 1999, p.1).

These mission statements form a framework of common values and purposes, as outlined by White (2004), and that any general aim of education should reflect these elements. These include the belief in education, at home and at school as a route to the spiritual, moral, social, physical and mental development, and thus, the well-being of the individual; the belief that education is a route to equality of opportunities for all, a healthy and just democracy, a productive economy, and sustainable development; the belief that education reflects the enduring values that contribute to valuing ourselves, our families and other relationships, the wider groups to which we belong, the diversity of our society and the environment in which we live.

According to White (2004), it is the role of education to reaffirm our commitment to the virtues of truth, justice, honesty, trust and a sense of duty. It is education that should enable us to respond positively to the opportunities and challenges of the rapidly changing world in which we live and work. All these common values and purposes could be looked at through the lens of the school curriculum.

The aims of education in Ghana are expressed in the national education goals and they aim to promote social justice and equity by ensuring universal basic education and equal educational opportunities for all Ghanaians; provide individuals with knowledge, occupational skills and attitudes for national development with a sense of dignity for labour and for preserving the nation's environmental resources; promote the culture of lifelong learning for all citizens who will continue to develop their intellectual capacities, technical

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

skills and their abilities to enable them to cope with technologies and other changes in the global world; promote the spirit of self-reliance that will enable individuals to be responsible for their well-being as well as that of the community; develop in the individual the ability to create, innovate, think critically and be independent minded; strengthen national consciousness and cultivate attitudes of good citizenship and patriotism and through that help preserve the nation's cultural heritage by promoting national languages and desirable traditions and values; develop attitudes conducive to harmonious relations among different ethnic groups and the international community (MOE, 2002, pp. 81-82)

The objectives of the senior high school education, as expressed by the MOE (2002, p.129), have been derived from the general aims. These objectives aim to reinforce the knowledge and skills acquired during basic education; provide a diversified curriculum to cater for different aptitudes, abilities, interest and skills; provide an opportunity for further education and training and introduce students to a variety of relevant occupational skills necessary for national human resource development; understand the environment and the need for its sustainability; inculcate a sense of discipline and selflessness in students; develop an interest for lifelong learning.

Objectives are more specific than the general aims of education, but White (2004) says both could be looked at through the lens of the school curriculum where the individual subjects are detailed out. In this case the general aims are reduced through general objectives to behavioural objectives at the classroom level.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Senior High School Subjects (Curriculum).

The subjects of the school curriculum are the vehicles used to meet the set aims. The subjects therefore cannot be selected at random but may need a careful selection bearing in mind the set aims. Thus, there is a link between the system-wide aims and the subjects of the curriculum. White (2004, p.1) puts it in a form of rhetorical question: "How good is the match between system-wide aims and the specifics of different curriculum subjects?"

The purpose for any curriculum is to respond positively to the common values in the society, hence schools need to work in collaboration with families and the local community, including church and voluntary groups, local agencies and business, in seeking to achieve two broad aims through the curriculum: (a) the school curriculum should aim at providing opportunities for all pupils to learn and to achieve (b) the school curriculum should aim at providing pupils' spiritual, moral, social and cultural development and prepare all pupils for the opportunities, responsibilities and experiences of life (White, 2004, pp. 2-3).

These two broad aims of the school curriculum can be grouped into learners' personal qualities, skills, knowledge and understanding (White, 2004). Personal qualities, White says, take about 60% of the specific aims of the school curriculum because the view of education is about society and the kind of citizens who may be appropriate for such a society. The personal qualities then need skills, knowledge and understanding to further their existence.

The role of the curriculum planners is to select the appropriate subjects that can serve as vehicles to help achieve the intended general aims. White

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

(2004, p. 9) asks: "To what extent are the subjects, as officially conceived, suitable instruments for realising the general aims?"

As an answer to this question, White undertook a project in 2001 for a national educational agency and looked at all the thirteen subjects of the England's national curriculum. He looked at their aims, programmes of study, attainment targets and contribution to learning across the curriculum and tried to establish how far there is a match or mismatch between these specific items and the overall aims. His findings showed that the best match was found to be in subjects only recently introduced into the curriculum: design and technology, ICT, citizenship and Personal, Social and Health Education (PSHE). There was a mismatch between and among art and design, English, geography, history, mathematics, modern foreign languages, music, physical education, R.E, and science.

The national curriculum of Ghana, by 2002, consisted of the following core subjects: English Language, Mathematics, Integrated Science and Social Studies, and optional programmes: Agricultural, Business, Technical, Vocational (Home Economics, Visual Arts), General (Arts and Science). The major breakdown of the elective programmes is illustrated in Table 4.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 4 - *Programmes and their Corresponding Subjects*

Programme	Subjects
Agriculture	General Agriculture, Crop Husbandry and Horticulture, Animal Husbandry/ Fisheries /Forestry
Business	Business Management, Cost Accounting, Type Writing, Clerical Office Duties and Financial Accounting.
Technical programme	Applied Electricity, Auto Mechanics, Building Construction, Electronics, Metal Work, Technical Drawing and Woodwork
Home Economics	Clothing and Textiles, Food and Nutrition and Management in Living.
Visual Arts	Basketry, Ceramics, Graphic Design, Jewellery, Leatherworks, Picture Making, Sculpture and Textiles
General Science	Chemistry, Biology, Physics and Mathematics.
General Arts	Christian Religious Studies, French, Geography, Ghanaian Languages, Government, History, Islamic, Religious Studies, Literature in English, Economics, Music and West African Traditional Religion.

(Source: MOE, 2002, pp. 305-308)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The MOE (2002) recommended the following courses or subjects to be added to their respective programmes: Introduction to ICT – as a required course in Business programme (Accounting and Secretarial options); Elective mathematics – as a required course in Business programme (Secretarial option); French or Music – as optional subjects in Business programme (Secretarial option); Chemistry – as an optional subject in Vocational programme (Home Economics option); 'Picture Making' to be changed to three separate Visual Arts subjects as Painting, Drawing and Print Making (of which students would be required to offer one).

The Teaching Syllabi of the Senior High School Curriculum

A syllabus is an organising document in the area of instruction (Chandler, 1985). It is a vehicle by which organisation and structure of intended learnings are communicated from teacher to teacher and teacher to learner (Eash, 1991). Each of the syllabi of the seven programmes of the senior high school is an official document designed by Curriculum Research and Development Division (CRDD) under the auspices of the Ghana Education Services (GES) of the Ministry of Education (MoE). After the design of the syllabus, it is handed over to the classroom teacher for implementation. The subsequent sub-headings look at the individual syllabus in terms of its organisation, structure, scope, content, etc.

Agricultural Programme.

Agriculture comprises five major areas with detailed syllabus of each. These are the General Agriculture, Crop Husbandry and Horticulture, Animal Husbandry, Fisheries and Forestry. The structure of the various syllabi is similar – the general aims, scope of content to be covered, time allocation,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

suggestions for teaching the syllabi, practical skills, detailed content and materials or equipment needed for teaching and learning.

There are some major common elements. First, each of the syllabi has both theory and practical component. Secondly, each has 6 periods of 40 minutes per week and out of the six periods, three are devoted to practical work and three to theory. Thirdly, each has two strands – providing terminal education for students or serving as a prerequisite for further studies. This strand is summarised using a sample from General Agriculture:

> The content of this syllabus has been designed in a way that will offer knowledge and skills to students for whom Senior High School education is terminal. Knowledge and practices acquired in this subject will enable such students to work on their own, or seek employment in agricultural establishments. The syllabus also provides adequate foundation knowledge and skills for students who will want to pursue further education and training in agriculture after SHS (GES, 2010, p. iii).

Fourthly, teaching and learning bridges the gap between the world of work and the classroom. Taking an example from General Agriculture, students are required to visit well established government and private experimental and commercial farms, agricultural research institutes and other institutions related to agriculture. Teachers are also advised to invite staff of Ministry of Food and Agriculture (MOFA) and other related institutions to serve as resource persons where necessary. Also, the practical work should involve laboratory experiments, farm work, observations carried out on the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

farm or garden, field trips, collection of specimens and record keeping. (GES, 2010, p. vi).

Business Programme.

The Business programme comprises Business Management, Cost Accounting, Typewriting, Clerical Office Duties and Financial Accounting. The time allocation is the same for all the courses. Almost all the subjects have two strands – designed to offer enough knowledge and skills to students terminating their education at the end of senior high school to manage their own business efficiently while at the same time offering adequate foundation for those who will pursue further education in business (GES, 2010).

A major difference is seen in the area of the suggestions for teaching the syllabi. While practical aspect in terms of visits to companies, industries or offices, is silent on Business Management, Cost Accounting, Typewriting and Cost Accounting, it is well pronounced on Clerical Office Duties and Financial Accounting. For instance, schools are advised to "organize field trips to the offices of both large and small business organisations for students to be abreast with current office procedures and see the latest office equipment. The school could also set up model office where demonstration lessons could be held." (GES, 2010, p. vi). In the case of Financial Accounting, specific areas such as banks, manufacturing companies, large buying and selling companies, partnership firms, the Ghana Stock Exchange markets and the internet are mentioned.

Another significant difference has been observed between the Business programme and the Agricultural programme. While time allocation is shared equally between theory and practical work for Agriculture, practical element is

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

silent on the Business programme. The only exception is found in the Clerical Office Duties and Financial Accounting where field trips are organised.

One common element that runs through the courses, however, is the idea of team teaching. Thus, "To promote effective teaching it is advised that schools adopt the team teaching approach" (GES 2010, p. iv). Again, the number of periods allocated to the teaching of the courses "may have to be supplemented with extra time in order to adequately cover the scope of the subject." (GES, 2010, p. vi).

Technical Drawing Programme

The Technical programme is composed of seven subjects – Applied Electricity, Auto Mechanics, Building Construction, Electronics, Metal Works, Technical Drawing and Wood Work. All these subjects have the same structure in terms of the organisation and the suggestions for teaching each of the syllabi. The time allocation is the same for all of them. Both theory and practical components have equal value of 50%, except Metal Work and Wood Work which have 60% practical and 40% theory.

General Arts Programme

The General Arts programme comprises a lot of subjects. These include Christian Religious Studies, French, Geography, Ghanaian Languages, Government, History, Islamic Religious Studies, Literature in English, Economics and West African Traditional Religion. All the subjects as mentioned over here have the same number of periods and minutes per week. With the exception of Music which has practical value of 70% and a theoretical value of 30%, all the other subjects do not have any practical

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

element. The organisation of each syllabus for each programme and the suggestions for teaching the syllabi remains the same.

Visual Arts Programme.

The Visual Arts programme comprises nine subjects. They include Basketry, Ceramics, General Knowledge in Art, Graphic Design, Jewellery, Leather Work, Picture making, Sculpture and Textiles. The organisation and the suggestions for teaching the various syllabi is similar. The profile dimensions of knowledge and understanding (15%), application of knowledge (25%) and practical skills (60%) are the same for all the subjects. The time allocation is also the same for all of them.

Home Economics Programme

The subjects that make up the Home Economics programme are Clothing and Textile, Food and Nutrition and Management in Living. The organisation and structure of the respective subjects are similar. For example, time allocation in terms of the number of periods and minutes per week is the same for all the subjects. One significant difference is, however, observed in the area of profile dimensions. While both Clothing and Textile and Food and Nutrition have percentage values of 15 for knowledge and understanding, 25 for the application of knowledge and 60 for practical skills, Management in Living has percentage values of 20 for knowledge and understanding, 40 for the application of knowledge and 40 for attitudes and values.

General Science Programme

The General Science programme comprises Chemistry, Elective Biology, Elective Physics and Elective Maths. Each subject is structured similarly in terms of organisation, scope, suggestions for teaching the syllabus,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

profile dimensions, etc. While some of the subjects give both the breakdown of the content and the possible placement after the programme, others are silent on one or the other. For instance, in the syllabus for Chemistry, it is stated that the syllabus is designed for those who will end their study of Chemistry at the senior high school level; for those who will require knowledge of Chemistry in their vocational studies and for those who wish to continue with their studies at tertiary institutions. It is silent on students' entry into the world of work as it is explicitly stated in the syllabus of Agriculture. Elective Physics also has both the detail of content and the possible placement of the students. It states that the topics have been selected to enable the students to acquire the relevant knowledge, skills and attitudes needed for tertiary level education, other institutions, apprenticeship and for life. Both Elective Maths and Elective Biology are silent on students' world of work and concentrate only on the breakdown of the content.

In terms of profile dimensions, only Elective Maths is different because the focus is on only knowledge and understanding (30%) and the application of knowledge (70%). The rest, Chemistry, Elective Biology and Elective Physics have the same values of the profile dimensions: knowledge and understanding (30%); application of knowledge (40%), practical (psychomotor) (15%) and affective in terms of valuing (15%).

The Core Subjects.

There are five subjects that make up the core subjects of the senior high school curriculum. These subjects are the English Language, Mathematics, Integrated Science, Social Studies and Information and Communications Technology (ICT). The core subjects also have the same

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

organisational pattern and structure. The major difference can be found in the area of the profile dimensions. For example, while in ICT knowledge and understanding has 10%, application of knowledge is 30% and practical skills give 40%, the percentage values in Mathematics are 30% for knowledge and understanding and 70% for application of knowledge. English language has knowledge and understanding and the application of knowledge as 40% and 60% respectively. The remaining two also vary. Integrated Science, for instance has 20% for knowledge and understanding, 40% for application and 40% for practical and experiential skills but those of Social Studies are 35% for knowledge and understanding, 40% for the application of knowledge and 25% for attitudes and values.

Profile Dimensions in the Curriculum

Each of the seven programmes has its own profile dimension. A profile dimension "is a psychological unit for describing a particular learning behaviour" (GES, 2010, p. vii). A profile dimension, according to the Ghana Education Service, is a central aspect of each of the syllabi. It is the profile dimension that determines the specific behaviour or skill that a learner is to acquire. It is usually stated in an action word.

The profile dimension in the curriculum is structured into three main domains namely the cognitive, affective and psychomotor domains. The cognitive domain comprises knowledge, comprehension, application, analysis, synthesis and evaluation. The affective domain also consists of receiving, responding, valuing, organisation and characterisation. The psychomotor, on the other hand, is made up of reflexive movements, basic-fundamental movements, perceptual abilities, physical abilities, skilled movements and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

non-discursive communication. Each of the domains has its own features. For instance, cognitive domain comprises knowledge and understanding and the application of knowledge. Affective domain focuses on attitudes and values while the psychomotor looks at the practical skills.

The analysis of each of the programmes has revealed the total percentage weight of each domain. The percentage weight indicates the focus of teaching and learning. For example, if knowledge has 30% and the application of knowledge has 70% it means that teaching and learning should be geared towards the application of knowledge more than knowledge and understanding. The total percentage weights in Table 5 demonstrate the type of domain in which emphasis of teaching and learning should be.

Table 5 - *Percentage Weight of Cognitive, Affective and Psychomotor Domains*

Programmes	Cognitive		Affective	Psychomotor	
	Knowledge & Understanding	application of knowledge	attitudes & values	practical skills	**Total**
Agriculture	80	130	95	95	**400**
Science	120	190	45	45	**400**
Technical Draw	120	260	160	160	**700**
Business	210	280	00	00	**490**
General Arts	245	435	130	00	**800**
Visual Arts	135	225	00	540	**900**
Home Econs	35	65	40	40	**180**
Core Subjects	135	240	45	60	**480**
Totals	**1080**	**1815**	**515**	**940**	**4350**

(Source: Researcher's Construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 5 contains the three main domains of cognitive, affective and psychomotor. The figures indicate the percentage weights of the magnitudes of skill during teaching. Knowledge and understanding and the application of knowledge together constitute the cognitive domain. This means that both teaching and learning skills in the senior high school curriculum lay more emphasis on the skills of cognitive domain (2,895 percentage weight) as against the skills of the affective domain (515 percentage weight) and the skills of the psychomotor domain (940 percentage weight). It is therefore expected that the analysis of the skills in the curriculum will reveal more frequencies of the skills of the cognitive domain. A visual representation of the percentage weights of the cognitive domain, affective domain and the psychomotor domain is seen in Figure 3.

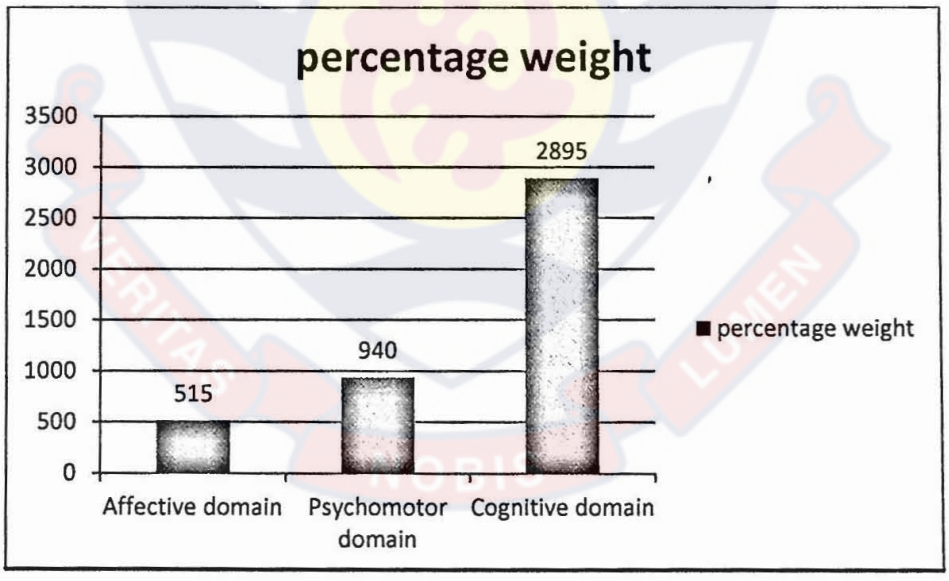

Figure 3. Percentage Weight of Cognitive, Affective and Psychomotor Domains

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

From Figure 3, it can clearly be seen that the cognitive domain contains skills with the highest percentage followed by the psychomotor domain and lastly the affective domain. The implication of this is that teaching and learning interaction focus more on the skills of the cognitive domain.

The various programmes also have their own percentage weights. It can be realised from Figure 4 that Visual Arts programme has the highest percentage weight followed by the General Arts, Technical Drawing, Business, Core subjects, Science, Agriculture and lastly Home Economics. The percentage weights suggest that the skills that recur frequently are vested so much in the Visual Arts down to the Home Economics.

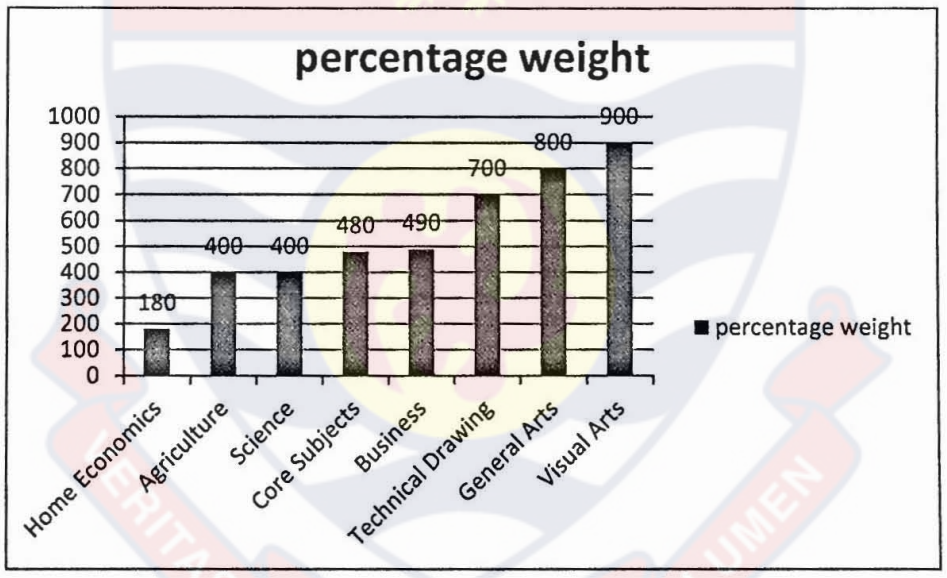

Figure 4. Percentage Weight of the SHS Programmes in the Curriculum

Apart from the Technical Drawing which comes in between General Arts and Business, the order of values could suggest that those courses with practical orientation do not have much recurrence of their skills as those without practical orientation.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

State of the Senior High School Curriculum

The curriculum currently implemented in Ghana was the one bequeathed to Ghanaians by the colonial masters (Britain). It was first a pure grammar type of curriculum. It was first modified in 1712 during the chaplaincy of Thomas Wenden, a British. The only modification was the addition of Music to Reading and Writing but in 1815, Music was replaced with Arithmetic (Graham, 1976).

The curriculum was diversified or vocationalised and structured in 1928 with the aim of catering for the diverse interests of learners. The diversification of the curriculum intensified in the 1930s. In 1937, it dawned on Ghanaians that the secondary school curriculum should be contextualised. It needed to relate to our economic sectors such as Agriculture, Fishery or a Craft or Crafts, with emphasis on domestic Science for girls.

Today, the senior high school curriculum is designed to comprise seven programmes: General Agriculture, Science, Business, Technical, General Arts, Visual Arts and Home Economics. Research by IMANI, Ghana (2013), however, shows that many stakeholders are not happy with the curriculum because it is still bookish and grammar type, though it is diversified.

There are two schools of thought about the current state of the senior high school. The first is of the conviction that the curriculum lacks practical orientation hence only theory is taught the learners of the curriculum. The second school of thought is of the belief that the curriculum comprises a practical element, but this practical element recommended in the curriculum is not implemented due to lack of adequate teaching and learning facilities, poor

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

infrastructural facilities, low number of well-motivated and committed teachers, poor management and supervision and inadequately prepared junior high school leavers (GES, 2002).

Another major state of the senior high school curriculum is the oscillation of the duration of the programme. Any government that comes to power tries to undertake educational reform either to reduce the number of years or to increase the years or even maintain the years with major modification.

In a research by the Ministry of Education (Anamuah-Mensah Committee) (2002), it was found out that a number of people in the country wanted an extension of the senior high education to four years. The study concluded, however, that if the deficiencies that led to the low performance of students were addressed, then there would be no need to increase the duration. It was, therefore, suggested that the three years be maintained. The government of the day, however, increased the number of years to four. This was also reversed in 2009 when another government took over.

The senior high school education has now become a political game for politicians and it seems to be a means for them to convince electorates for their mandate during elections. The major concern of politicians in Ghana seems to be finding ways to win election but not how to fix problems, especially the problems that relate to senior high school education.

Demand for Senior High School Education in Ghana

The demand for senior high school education in Ghana has been varying. The availability of data is, however, a major problem in the analysis of the trend of demand for senior high school education. From 2004 onwards,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

however, data became more or less available. The Education Sector Report (MOE, 2004), for instance, stated that the 2004/5 target of senior high school enrolment of 262,410 was surpassed significantly as the actual figure was 328,426 in the 2003/04 academic year.

Between 2002/03 and 2005/06, the total enrolment for senior high school increased from 301,120 to 333,002, with a growth rate of 10.6% (MOE, 2005). According to the report, the 2004 report on growth rate was as high as 9.1% as against the 2005 report of 1.4%. The senior high school enrolment figure increased from 333,002 in 2004/05 to 384,455 in 2005/06. The percentage increase in enrolment was 15%. The percentage increase in enrolment for male students was 16% (188,115 in 2004/05 to 219,844 in 2005/06) as against 14% (144,887 in 2004/05 to 164,611 in 2005/06) of female students.

The Education Sector Performance Report in 2007 (MOE, 2007) also reiterated the upward adjustment of the enrolment rate of the senior high school students. The analysis comprised both 478 public senior high schools and 127 approved private secondary schools. According to the report, the overall percentage increase in enrolment in 2006/2007 was 28% (384,455 in 2005/06 to 492,120). The percentage increase for male students was 24.1% (219,844 in 2005/06 to 272,792 in 2006/07) while percentage increase for female students was 29.4% (164,611 in 2005/06 to 212,951 in 2006/07).

The 2008 Education Sector Performance Report (MOE, 2008), however, stated that the prospect of entry into senior high school encouraged demand for basic education but the transition into senior high school was low,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

as it appeared to have been declining in the past two years and remained below 50%.

The 2009 Education Sector Performance Report (MOE, 2009) gave a substantial increase in 2005/06 but the increment levelled off in the two following years and picked up again in 2008. Thus, between 2007/08 and 2008/09, enrolment increased from 454,681 to 490,334, an 8% increase that was completely led by the public education sector.

In 2011, enrolment in the senior high school programme continued to increase. The major reason given was that there had been an expansion in access to basic education which in turn was feeding into the senior high school.

The Forum for Education Reform, IMANI-Ghana (2013) looks at enrolment from a different angle. From this perspective, enrolment rates drop sharply as one ascends the educational ladder. According to IMANI-Ghana, at the primary school level, the nation is achieving about 95% of enrolment but this figure drops to about 78% at the junior high school level and further drops below 40% at the senior high school level and worse still, it drops to 12% at the tertiary level.

Theoretical Review

The theories that underpin curriculum fall under the theoretical review. In this review, theoretical framework of the study, the foundation of curriculum theory, reconceptualisation and post-reconceptualisation of curriculum theories are examined. The review further looks at the classification of curriculum theories, curricular reality theory and theory of contextual realities. The review also examines world culture theories and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

contextual realities, anthropologists and contextual realities and it concludes on designing a relevant curriculum and the relevance of the review of curriculum theories.

Theoretical Framework

Every curriculum goes through three major stages: the design, implementation and evaluation. The design of a curriculum takes into consideration, situational analysis, identification of ultimate goals, derivation of mediate goals from the ultimate goals and the setting up of proximate goals at the classroom level. The design also takes into consideration the philosophy – the beliefs, values and attitudes – of the people. The psychology of learning is not left out in the design of a curriculum.

The implementation of a curriculum also comprises three major elements: fidelity approach, mutual adaptation and curriculum enactment. In a fidelity approach to curriculum implementation, the curriculum is centrally designed and handed over to the classroom teacher for implementation. In this case the teacher implements the curriculum to the letter. In a mutual adaptation, two or many countries come into an agreement for the adaptation of a curriculum. In this process, the adaptor makes modifications in the original curriculum and includes in it the values of the adaptor's nation before implementation. Curriculum enactment, on the other hand, brings together the teacher and the learner to decide on what should go into the curriculum.

Curriculum evaluation looks at the usefulness and effectiveness of a curriculum and the decision taken to that effect. It involves gathering information, making a judgement about the information and then making

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

decision about a phenomenon or an entity. The ultimate purpose of evaluation is to facilitate decision making

Having looked at the three major stages of curriculum, it stands out that investigating into the relevance of a curriculum falls within the concept of curriculum design. The theoretical framework of the study was based on Reimer's (1980) 'A model of the total curriculum,' an Aesthetic Education Curriculum. According to Reimer, a curriculum is relevant when a student goes through the foundation phase (philosophy) and the functional phases and he/she is able to apply the skills in the world of work. This model could be adapted and applied to any curriculum. In the senior high school curriculum, the skills are outlined in the general objectives of the curriculum (GES, 2010).

Foundation of Curriculum Theory

Curriculum theory emerged from the antagonistic philosophies that underlined curriculum in the 1960s. Curriculum theory, according to Marsh and Willis (2007, p. 97), is a "guess or conjecture" that deals with the discovery of universal generalisations through the systematisation of unrelated observations, generation of research hypotheses, provision of explanations and the making of predictions. Huenecke (1982) points out that theory attempts to identify and describe, explain and predict, and it may also prescribe or suggest desirable elements, relationships or outcomes.

Historical experience shows that curriculum theorising has gone through three stages. The first wave was the narrow proceduralism of Tyler rationale. This was followed by the broad conceived theorising and the third wave was the cutting-edge curriculum theorising, as Wright (2000) contends

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

that we are surfing a "third wave" of cutting-edge curriculum theorising and its focal points are race, class and gender.

The antagonistic philosophies emerged after the Tyler rationale. The curriculum field became more or less stabilised through the Tyler rationale. Pinar (2008) admits that the Tyler rationale represents the foundation of the field and its paradigmatic stabilisation as curriculum studies. It has a long and persistent influence on curriculum practices and the reorganisation of its institutional modes (Pinar, 2010). Pacheco (2012) describes the Tyler rationale as a normative theory by relating it to psychology and behavioural objectives in the ideas of Bruner and Bloom. Klein (2009) acknowledges that the Tyler rationale became the doctrine in curriculum development because it was broadly accepted in the schools. It was also accepted broadly because of its 'universal model' (Kliebard, 1970). Some curricularists, however, looked at Tyler rationale as outdated. Lincoln (1992, p. 184), for instance, argues that "the Tyler rationale is out-of-date and if we have little or nothing to replace it with" then alternative theoretical possibilities within the field may be discussed. Finding possible theories to replace the Tyler rationale resulted in the concept of reconceptualisation and post-conceptualisation of the curriculum.

Reconceptualisation of Curriculum Theory

The theory of curriculum turned towards reconceptualisation in the 1970s. The focus of this new movement in curriculum studies, according to Waks (2010), was to find an alternative to the perspectives of Tyler and Bloom as their perspectives were considered "old stuff" (p. 234). The curriculum field by then was considered to be in a period of stasis hence new

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

ways of understanding the field. Pinar (1979) is the most well-known of the movement (Pacheco, 2012). It was the period that some scholars, like Schwab (1970), referred to the curriculum field as 'moribund.' Again, it was at this time that the curriculum was named amorphous, ill-defined epistemology, suffering from severe disorientation, etc. (Jackson, 1992).

The concept of reconceptualisation "is a reaction to what the field has been and what it is seen to be at the present time" (Pinar, 1979, p. 93). It is a movement in "opposition to the managerial and prescriptive nature of curriculum studies aligned with Frederick Taylor's scientific management theory and Ralph Tyler's principles of curriculum and instruction" (Slattery, 2006, p. 57). Pacheco (2012) identifies two waves of reconceptualisation: the first wave reinforces the features of a social theory linked to Marxist or neo-Marxist perspectives, whose analytical icons are class, hegemony and ideology while the second wave starts with the expansion of discourses associated with autobiographical, psychoanalytical and deconstructional approaches. Pinar and Grumet (1991) describe the focus of reconceptualisation as descriptive rather than prescriptive and that it follows critical theory that studies signs of educational practice to discover what might have been and what still may be.

The reconceptualisation of the curriculum has many recommendations to its advantage. It allows a solid construction of a curriculum theory related to the paradigm of understanding (Pacheco, 2012). It is an intellectual breakthrough (Pinar, 1999). Again, it has broadened the scope of curriculum theorising. The theorisers have produced exciting ideas (Feinberg, 1985). Marsh (1992, pp. 202-203) sees reconceptualists as raising serious challenges

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

about traditional approaches to curriculum; generating new concepts and a new language to theorise about curriculum as new language was needed to explain adequately different perspectives and relationships; assisting greatly in the demotion of quantitative methods of evaluating education practices from their position of pre-eminence and have promoted instead, qualitative approach. Finally, the work of reconceptualists represents a paradigmatic advancement over the Tyler rationale (Marsh, 2004; Rogan & Luckowski, 1990).

The theory of reconceptualisation, however, has some weaknesses. The theorisers form partisan advocacy by simplifying and exaggerating the historical development of curriculum (Milburn, 2000). The theories of these new theorising are "remakes" of early theorising (Tanner, & Tanner, 1981). They are only concerned with 'presentism' without actually making any paradigm shift (Milburn, 2000). They have not produced practical ideas except exciting ideas because there is no school implementing a reconceptualised curriculum (Feinberg, 1985). Their work is predominantly prose rather than analysis and hence it provides minimal practical insights (Marsh, 1992; Van Manen, 1978). Autobiographical accounts do not provide generalised principles which can explain their validity to a wider audience of scholars (Marsh, 1992).

Post-reconceptualisation of Curriculum Theory

Post-reconceptualisation of the curriculum theory is a new period or a new era defined by post-modern for understanding issues of curriculum (Pinar, Reynolds, Slaterry, & Taubman, 1995). The focus of curriculum studies in post-modern era is the "commitment to a robust investigation of cultural,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

ethnic, gender, and identity issues" (Slattery, 2006, p. 146). In addition to this, Slattery argues that it is the identification of the "uniqueness of each individual person, text, event, culture, and education."

Post-reconceptualisation, according to Pacheco (2012), is woven in eclectic and wide theoretical approaches such as phenomenology, autobiography, existentialism, arts-based research, pragmatism, deconstruction, queer theory, critical race theory, post-structuralism, feminism, hermeneutics, complexity theory, and critical theory (Slattery, 2006). Pinar, Reynolds, Slaterry and Taubman (1995) are not so much concerned about the distinction between reconceptualisation and post-reconceptualisation. To them, the distinction will only reflect the tensions about the perspectives of different authors and the waves of reconceptualisation. Again, they argued that it is through post-reconceptualised field of curriculum theorizers that an answer for the legitimisation of curriculum theory is realised. In addition, with the post-modern and post-structuralism projects at the same time, the multiplicity of voices is recognised. It is the post-reconceptualisation that has enlarged the second wave of reconceptualisation by reinforcing the subjectivity of an interdisciplinary curriculum research (Pacheco, 2012).

The paradigm shift from Tyler rationale through reconceptualisation to post-reconceptualisation still poses some challenges. Reynolds (2003) submits that if post-reconceptualisation is a new period or a misnomer, certainly the understanding paradigm continued with the reconceptualists and the post-reconceptualists. Pinar (1979) sums it up that "someday there will be a new

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

paradigm, but it's not here, yet. No, we're still in the paradigm of understanding curriculum" (as quoted in Pacheco, 2012, p. 8).

Classification of Curriculum Theories

The classification of curriculum theories appears to be another difficult task. The first attempt to classify curriculum theories by McNeil (1985) focused on the scope of curricularists. According to McNeil, those writers who are flexible and draw on a wider field of religion, philosophy, and literary criticism are considered 'soft curricularists' (Glatthorn, Boschee, & Whitehead, 2006). According to Glatthorn, Boschee and Whitehead, those who follow a rational approach and rely on empirical data are also considered 'hard curricularists.' William Pinar and other conceptualists belong to the 'soft' curricularists while Decker Walker and Mauritz Johnson and other descriptivists also belong to the 'hard' curricularists. In terms of this categorisation, any writer who draws from similar perspectives is classified as such. In view of this, Elliot Eisner and Henry Giroux may be considered as 'soft curriculularists.' This classification, according to Glatthorn, Boschee and Whitehead, is unsatisfactory.

The classification also looks at three perspectives: traditionalists, conceptual empiricists, and reconceptualists. This classification was proposed by Pinar (1978) (Glatthorn, Boschee, & Whitehead, 2006). Traditionalists are those curricularists who see curriculum simply as subject matter content of a course or course of study (Tanner, & Tanner, 2007). To such traditionalists, such as Tyler, the notion of curriculum is the notion of class, teacher, course, units, lessons, and so forth, as Glatthorn, Boschee and Whitehead (2006) point out. Conceptual empiricists and conceptualists, on the other hand, adopt an

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

informal approach to the design and implementation of a curriculum. According to Glatthorn, Boschee and Whitehead (2006), these theorists emphasize three items: subjectivity, existential experience, and the art of interpretation in order to reveal the class conflict and the unequal power relationships existing in the larger society. Glatthorn, Boschee and Whitehead (2006) view that the basic difficulty with this tripartite formulation is that it mixes in a confusing fashion of the theorists' research methodologies and their political stances as bases for categorising theorists.

The search for the consensus on the classification of curriculum theories has not yet been materialised but Eisner's and Vallance's (1974) proposed classification in their book, *Conflicting Conceptions of Curriculum*, has been one of the most widely cited classifications of curriculum theories (Glatthorn, Boschee, & Whitehead, 2006). They have come out with five different conceptions of or orientations to the classification of curriculum theories which include (a) a cognitive-process approach to the classification of theories and focuses on intellectual development as against specific content, (b) the curriculum-as-technology orientation which also focuses on finding the most efficient means of accomplishing predetermined ends, (c) self-actualisation approach and it lays emphasis on seeing the curriculum as a consummative experience designed to produce personal growth, (d) social reconstruction relevance which emphasises societal needs more than individual needs and (e) academic rationalism which also emphasises the importance of the standard disciplines in helping the young participate in the Western cultural tradition (Glatthorn, Boschee, & Whitehead, 2006).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

According to Glatthorn, Boschee and Whitehead (2006), four of the classifications – the cognitive processes, the person, the society and the subject – seem to designate the major sources for determining curriculum content, and that Eisner and Vallance seem to err in including curriculum-as-technology orientation. According to them, technological orientation can be used with any of the four classifications in the development of a curriculum. The failure of McNeil (1985), Pinar (1978) and Eisner and Vallence (1974) has been attributed to their inability to sort out curricular theories in terms of their primary orientation or emphasis (Glatthorn, Boschee, & Whitehead, 2006).

The most productive classification is Huenecke's (1982) analysis of the domains of curricular inquiry (Glatthorn, Boschee, & Whitehead, 2006). Huenecke postulates three types of curricular theorising: structural, generic, and substantive. Glatthorn, Boschee and Whitehead observed that Hunecke's typology seems very useful but it seems to err in omitting one major domain of curriculum theories that is concerned primarily with the processes of curriculum decision making. In all therefore, four major classifications – structural, generic, substantive and process – are the most useful and productive.

Structure-Oriented Theories.

The major focus of the structure-oriented theorists of curriculum is on the components of the curriculum and their interrelationships. The theorists, through critical analysis, describe and explain how curricular components interact within an educational environment (Glattorn, Boschee, & Whitehead, 2006). They try to identify the essential elements of the curriculum and their

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

appropriate definitions, the levels of curriculum decision making and the forces that seem to operate at each level, and the principles that govern the issues of content selection, organisation and sequencing.

Prescriptive and descriptive theorisers, such as Dewey (1902), Tyler (1949), Taba (1962), Schwab (1970), Walker (1971), fall within structure-oriented theories. They attempt to develop macro-level theories (global theories that describe and explain the larger elements of curricular structure) and micro-level theories – those that are concerned with describing and explaining curricular phenomena as they occur at the institutional instructional levels (Glatthorn, Boschee, & Whitehead, 2006).

Value-Oriented Theories.

Value-oriented theorists attempt to sensitise educators to the issues of values that lie at the hearts of both the hidden and the stated curricula (Glatthorn, Boschee, & Whitehead, 2006). They are critical about the curriculum; hence they have been branded critical theorists. Their concern about the existing field of the curriculum and the need for its reconceptualisation classifies them as reconceptualists.

The major focus of the value-oriented theorists is on the identification of the ways by which the schools replicate the power differentials in the larger society, the nature of a truly liberated individual and how schooling inhibits such liberation, the conscious and unwitting nature of schools in molding children and youth to fit into societal roles predetermined by race and class (Glatthorn, Boschee, & Whitehead, 2006).

The sources of inquiry and the methodologies used by critical theorists or value-oriented theorists stand on drawing eclectically from psychoanalysis,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

philosophical inquiry, historical analysis and political theory (Glatthorn, Boschee, & Whitehead, 2006). Those theorists identified with value-oriented theories include Apple (1979), Eisner (1979), Macdonald (1971), Pinar (1978), Stenhouse (1975) and Vallance (1982). Two major divisions – those focusing on the person and those focusing on the socio-political milieu – have been identified. Glatthorn, Boschee and Whitehead (2006) identify James Macdonald and Michael Apple as representing the two extreme divisions. Macdonald's writing can be summed up as the search for transcendence, the struggle of the individual to actualize the whole self (Glatthorn, Boschee, & Whitehead, 2006). That of Apple's is the relationship between the society and the school.

Content-Oriented Theories.

Content-oriented theorists focus primarily on specifying major sources that should influence the selection and organisation of the curriculum content (Glatthorn, Boschee, & Whitehead, 2006). Their theories focus on the three focal points as to which one should dominate at a time or to bring about balance among them.

Knowledge-centred theorists are those traditionalists who advocate subject-curricula. This theory, for example, dominated the American education between 1890 and 1916. The non-traditionalists who are also called progressivists advocated two non-clear alliances of child/individual-centred and society-centred curricula (Marsh, & Willis, 2007). It was not until *The Eight Year Study*, Tyler as the Director, that a balance among the three focal points was achieved. The Tyler rationale combined the three focal points – subject matter, learner and society – at equal pace even though Tyler himself

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

said it was not a theory for it does not describe and outline in detail the steps to be taken by a given school or college that seeks to build a curriculum (Tyler, 1949).

Process-Oriented Theories.

Process-oriented theories, according to Glatthorn, Boschee, and Whitehead (2006), are concerned primarily with describing how curricula are developed or recommending how they should be developed. Some of the process-oriented theories are therefore descriptive in nature while others are more prescriptive.

Curricular Reality Theory

Curriculum exists within a number of overlapping and integrated contexts. These overlapping and integrated contexts, King (1986) observes, give meaning to the curricular experiences for stakeholders. Since meaning is derived from context, the curriculum becomes meaningful when it is situated in context. This implies that the logical essence of curriculum development lies in practical reasoning (Basson, & Walker, 1984). These practical reasonings are referred to as contextual realities. Contextual realities, King (1986) reveals, refer to all elements of the physical environment and the social context within which the curriculum is designed. The content in terms of the cognitive skills that are acquired become relevant only when they are examined in relation to these contextual realities (Jansen, 1988).

In his work on *Recontextualizing the curriculum*, King (1986) identifies at least four contexts of the curriculum: the classroom context, the personal and social context, the historical context and the political context. According to him, these four curriculum contexts are not discrete but they are

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

interrelated. Therefore, "any approach to curriculum practice or research which overlooks or denies the importance of curricular contexts inevitably distorts and misrepresents the reality of curricular events" (p. 38)

Classroom context encompasses the teacher, the books and materials, the content and the children. King (1986) explains into detail the essence of classroom context. According to him, the totality of the classroom contributes to curricular events and influences the meaning of these events for the participants. Again, personal context refers to individual previous experiences and present aptitudes, interests, skills and attitudes that influence the meaning of the curriculum. These personal contexts, King reiterates, help to create the social contexts. Any activity in the society, either a play or work, is derived from the personal and social contexts as perceived by the participants. Historical context, on the other hand, refers to the flow of history in society by providing important curricular context. In other words, "models of curriculum development proposed in the past create the historical context for current efforts" (King, 1986, p.37). Finally, political context refers to the relationships of influence, authority and power both at the classroom level and outside. The larger society, both national and international, forms an important curricular context. There is a relationship between the school and society; thus, the organisation of work and the nature of political power in schools is compatible with the organisation of work and the nature of political power in society (Apple, 1979; Giroux, 1983).

Theory of Contextual Realities

Global scripts in education today have been recontextualised for local adoption. This global diffusion of common models, as seen by Balarin and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Benavides (2010), has created an imbalance between policy discourses and actual practices. This practice of recontextualisations and deviations from the global policy scripts is seen mostly in developing countries (Anderson-Levitt, 2003). This mismatch has sometimes been viewed as a normal feature in which institutionalists see a progressive movement towards the consolidation of a rational modern world culture (Meyer, Boli, George, & Ramirez, 1997).

Research conducted by Balarin, & Benavides (2010) and Oliart (2006), however, shows that policy recontextualisation at local levels by focussing on homogeneity of discourses can be misleading. When the misleading persists for a longer period, it leads to the imported character of education which serves as a blueprint, though with different histories (Kobrin, 1977).

The issue of policy recontextualisation has become a serious debate between anthropologists and comparative educationists on one side and world culture theorists or institutionalists on the other side. While anthropologists emphasise cultural differences among nation school system, world culture theorists posit that the idea of schooling spreads from a common source and that schools around the world are becoming more similar over time (Anderson-Levitt, 2003).

World Culture Theorists and Contextual Realities.

The proponents of world culture theorists who are also called sociological theorists or institutionalists, such as John Meyer, Francisco Ramirez, John Boli and their colleagues argue that a single global model of schooling has spread around the world as part of the diffusion of more general cultural model of the modern nation-state (Anderson-Levitt, 2003). According to the proponents, this model of modern nation-state serves as a template for

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

organising government, health, the military and other institutions (Meyer, Boli, George, & Ramirez, 1997).

Tracing the origin of global model of mass education, Ramirez and Boli (1987), Soysal and Strang (1989) affirmed that it arose in Europe as part of a state-building process and as new nations sprung up after World War II, the rest of the world adopted the model. As nations continued to reform their school systems they have become more similar in form and structure than before. One identifiable feature of the theory is that there is "an increase in common educational principles, policies, and even practices among countries with varying national characteristics" (Chabbott, & Ramirez, 2000, p.173). For instance, from the 1920s to the 1980s, elementary curricula were more or less similar (Meyer, Kamens, & Benavot, 1992), and again, from 1955 to 1965, official national goals for education were also similar (Fiala, & Lanford, 1987; McNeely, 1995). This evidence shows that school systems were converging rather than diverging (Anderson-Levitt, 2003).

World culture theorists buttress their arguments by stating that human beings have not really created any new human universals in the last 200 years; that even though there is a vastly larger population, human beings nonetheless live in more similar societies than ever before, and that true school reform happens at the level of global and national policies than at the level of classrooms and schools.

Anthropologists and Contextual Realities.

Anthropologists are of the belief that school systems are diverging rather than converging (Anderson-Levitt, 2003). Ethnographic and other qualitative methods have been used in a study, *Local meanings, global*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

schooling: Anthropology and World culture theory, by Anderson-Levitt (Ed.) (2003), as a response to the issues raised by world culture theorists. Their findings show that inside local schools, inside ministries, or even among global reformers like UNESCO and the World Bank, policy is much less homogenous than world-culture theory might imply. They also found out that teachers and other local actors sometimes resist and always transform the official models they are handed with. They further observed that world culture theorists grossly underestimate the importance of power, sometimes mistaking coercion for voluntary adoption.

The researchers, however, concede that world culture theorists have noticed an important phenomenon that anthropologists miss. According to them, the global view does reveal models that affect educators in local situations. They have dwelled on many insights from world culture theory with the intention of integrating both ideas of anthropologists and world culture theorists.

Designing a Relevant Curriculum

Many scholarly studies have been carried out in the area of the design of an appropriate and effective curriculum (Jansen, 1988; King, 1986; Reimer, 1980; Squire, Makinster, Barnett, Luehmann, & Barab, 2002; Walker, 1971). While some of these scholars focus on models of specific subject areas with their general application to other subjects (Reimer, 1980), others look at the implementation models in different communities with the aim of ascertaining the effectiveness of curriculum design and models (Squire et al., 2002).

Walker (1971) was one of the curricularists whose interest lay in practical curriculum design - how curriculum planners actually go about their

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

task but not how they should go about it (Marsh, 1992). Walker was appointed as participant observer and evaluator for the Kettering Art Project in California during the late 1960s. This participant observer role gave him the opportunity to record the actions, arguments and decisions of the project team as Marsh stated. As he compared his findings with other findings of similar projects, he developed his concepts into a process framework known as a naturalistic model. He came out with a three-step sequence: platform-deliberation-design as may be seen in Figure 5.

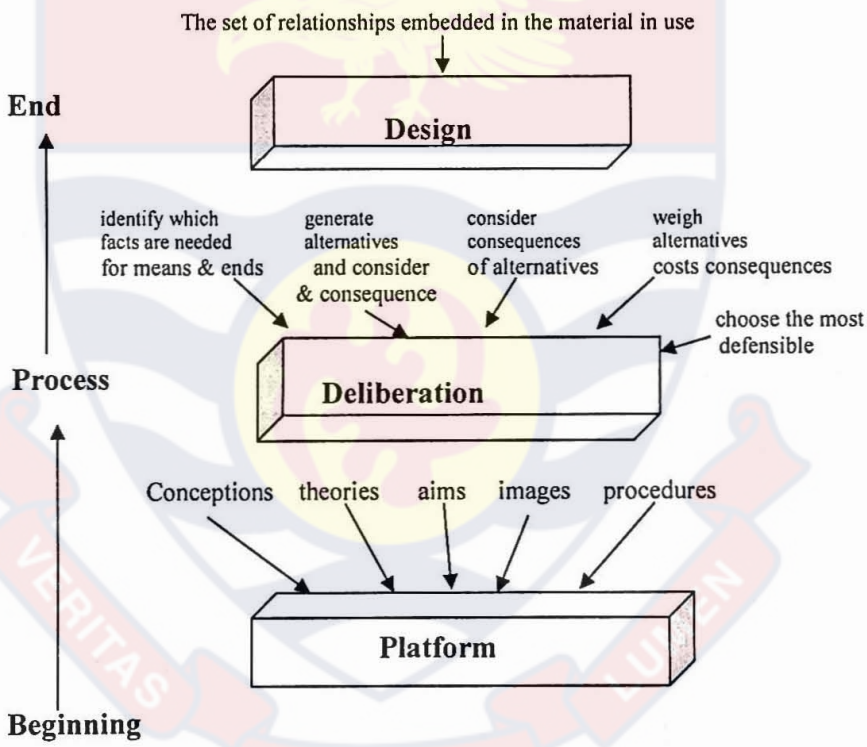

Figure 5. Walker's Naturalistic Model

Source: Mars & Willis (2007, p. 80). *Curriculum: alternative approaches, ongoing issues* (4th ed.). New Jersey: Pearson Prentice Hall.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

with the school's and teacher's fundamental decisions about why, what and how to teach. It is the point of contact between a plan and its implementation. Thus, all aspects of the Foundational Phase – the philosophy, the curriculum conceptualisation, the plan for delivery – must be transformed by people into actions. The operational component, on the other hand, deals with the actual experiences provided by the teacher and any others involved in instruction. At this point, the teacher, the program and the children interact for the best possible quality. Finally, the experienced component consists of the effects of the curriculum on the children and their effects on the curriculum. These three components, together, help to answer the question, "How can learning be most effectively encouraged?"

Reimer (1980) underlies this 'total curriculum' with two contributory factors namely the expectational and conditioning factors. The expectational factor is the context of societal beliefs in which the curriculum is embedded. The conditioning factor, on the other hand, has "to do with all the practical conditions under which the curriculum must operate." (p.37).

In the perspective of Punia (2015), curriculum was previously based on content relevance but today teachers with sound industrial experience are deemed to assure relevance. In the view of Erber (2012), a curriculum can only be relevant when it is more inclusive and relevant to the world of work by diversifying the curriculum to cater for a wide range of interests and abilities. According to Erber (2012), relevance means striking a good balance among technical, vocational and general subjects and by ensuring that these subjects build on foundation skills, and smooth the school-to-work transition by emphasising transferable skills.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Relevance of the Review of Curriculum Theories

The theories of curriculum reviewed so far are very relevant. They help situate the current study in its own context. The thesis of the current study is "a curriculum that is relevant should be responsive to the challenges of the graduating student of that curriculum." This thesis is rightly situated in the value-oriented theory of curriculum. Value-oriented theory focuses on both the person and the socio-political milieu. This current study specifically hinges on Macdonald's (1971) idea of the person. Macdonald's writings focus on the search for transcendence, the struggle of the individual to actualise the whole self (Glatthorn, Boschee, & Whitehead, 2006). The question this current research seeks to answer is: "What skills have been imparted to the learner to make him/her actualise the whole self after going through a given curriculum?"

In addition to the contextualisation of the current study within the theories, the review of the theories in the area of contextual realities, world culture or sociological theories and anthropological theories is very significant. The design of a curriculum takes into consideration the learner, the subject matter and the society as a whole and since societies are not the same it may be wrong to take entrenched positions as has been observed from both sociological (converging school system and the use of single template for all schools) and anthropological (diverging school systems without any homogeneity) theories. There can be a melting point where the two ideas may merge. The major determining factor to consider in the design of a curriculum should be the local realities before global realities. What are the local realities in terms of employment, politics, economy, agriculture, etc. and how can

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

global realities help shape these local realities? Any attempt to answer this question guides the design of a curriculum that relates to contextual realities.

Empirical Review

The research work carried out by researchers in relation to this current study and their findings thereof fall under the empirical review. In this review, studies on senior high school level and the job market was examined. The review further looked at curriculum change and contextual realities, and it concluded on the need for curricular relevance.

Senior High School Level and the Job Market

Senior high education is a terminal point for a majority of the graduates of the senior high school programme (Odamtten, 1996). The Education for all Global Monitoring Report (EFAGMR) (2011) says it is a bridge for young people from the world of school to the world of work. The senior high school is therefore a critical period for the youth.

Since the graduates of the senior high school have at least three major options – going into employment, self-employment or furthering of education – it is very crucial to have a relationship between the skills that are learnt in school and the skills requirements for the job market.

Skills Requirements for the Job Market

A lot of research work on the relationship between the skills that students learn in school and the skills requirements of the world of work has been carried out. Anderson and Gantz (2013) conducted a research entitled *Skills requirements for tomorrow's best jobs: helping educators provide students with skills and tools they need.* This research was financed by Microsoft and it served as an International Data Corporation (IDC) White

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Paper. They found out that skills and competences that support a well-developed, civically competent student are the same skills that will be widely in demand by employers in 2020 and beyond. Their findings also showed that high school students require "job readiness" and not "job training" for success (p.1).

The skills for the job market are determined by the fast-changing social, economic, and technology environments. Anderson and Gantz (2013) identify increasingly diverse customer base, employee's relationship with employer, increased complexity of business structures and organisations, expanding mobile customers and increased electronic communication, increasing economic importance of digital commerce and digital content, and information technology in the workplace as the major driving force for employers' acceptance of job applicants. The researchers observed that even though most of the elements of the driving force are facilitated by technology, the impact will not be technology related; the mere focus on technology is not the solution.

The solution is to impart the skills that will be required for jobs. In order to determine those skills, IDC examined 14.6 million postings between April and September 2013 from 25,000 job boards and staffing companies' corporate Web sites supplied by WANTED Analytics. The result of the analysis uncovered a massive number of skills required to satisfy the 60 high-growth/high-wage occupations they identified. It further revealed that more than 1,000 skills are needed for just those 60 occupations and more than 12,000 job specific skills are required across the more than 70 standard occupations.

SAM JONAH LIBRARY
UNIVERSITY OF CAPE COAST
CAPE COAST
Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

In order to determine the most common skills, the IDC examined the top 100 skills required for each of the 60 positions on high-growth/high salary list. Again, the IDC examined the top 100 skills across all U.S. occupations. The findings showed that the most required skills across occupations, in their order of significance, are oral and written communication skills, detail oriented, Microsoft Office, customer service oriented, organisational skills, problem-solving, sales and operations planning, bilingual/multilingual, self-starting/self-motivated, work independently, Microsoft PowerPoint, project management, Microsoft Word, time management, sales experience, dependability, work ethics, data entry, business development and team oriented/team work.

The study further looked at the comparison between skills for all jobs with skills for high-growth/high-wage occupations. It was uncovered that there is a great deal of commonality between the top skills required of all positions and those required for high-growth/high-salary positions. The study also found out that those most common skills are cross-functional as they can help one to get any job in any occupation. Unlike the cross-functional skills, occupation specific skills, thus, skills that are specific to individual positions such as programming skills, skills for health care or professionals and skills required for trade such as electrician and plumber, are much less frequently required (Anderson & Gantz, 2013).

One major outcome of the analysis of the study by Anderson and Gantz (2013) was that while only 37 cross-functional skills are required by half or more of high-growth/high-salary occupations, they make up 46.6% of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

skills requirements for positions. On the contrary, the 1,065 occupation specific skills make up the remaining 53.4% of skills requirements.

The implication of the high concentration of cross-functional skills is that high school students require "job readiness" and not "job training." (Anderson, & Gantz, 2013, p. 9). Another implication is that the skills most needed for the best jobs cut across many occupations so educators should consider focusing on the skills with the broadest applicability to success. A major revealing that is contrast to these implications is that the skills that are associated with specific occupations are less applicable for the broader occupation set which implies that such skills should receive less emphasis in general high school curricula.

Skills Employers Demand of Employees

One of the research works carried out on the skills that employers demand of employees was Barton's (2006) *high school reform and work: facing labour market realities*. In this study, Barton reported on seven organisations. The first was the study by the National Association of Manufacturers (NAM) in 2001. Barton found out from the National Association of Manufacturers (NAM) (2001) that manufacturers want well-rounded high school graduates who can read, write, calculate, solve problems, work in teams and have strong employability skills. Again, they want graduates familiar with the world of work and with varied career and post-secondary education options. They cited examples of reasons for rejecting applicants. The most frequently cited examples include inadequate employability skills, attendance, timeliness, and work ethics (69%), followed by insufficient work experience (34%) and failure to pass a drug screening test

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

(27%). The others, in the order of their ranks, were inadequate math skills, poor references from previous employers, oral communications, problem solving, and technical and computer skills.

The report also has some stimulating findings from Educational Quality of the Workforce National Employer survey, 1995. Educational Quality of the Workforce at the University of Pennsylvania designed this survey, and the Bureau of the Census administered it, and it was funded by the U.S. Department. The most important skills on top of the list were attitudes and communications skills. These were followed by prior experience and recommendation information. According to the report, factors directly related to schooling appeared in the lowest level of the list though with younger workers education related skills may play a significant role.

The third survey was on the Department of Education Survey of 101 Executives, 1988. The focus was on executives from small-and medium-size firms. It was reported that the ability to read and write together with computation, communication and problem solving skills were most required of applicants. It was the belief of business leaders that schools should emphasise the importance of good habits such as self-discipline, reliability, perseverance, accepting responsibility and respect for the rights of others.

In the fourth activity, 500 large companies as well as 6,000 small companies were surveyed using The Committee for Economic Development Survey of Employer Needs, 1984. Among the most appealing skills in both large and small companies were striving to work well, learning how to learn, priority setting, and communicating. The only difference was that the fourth-ranked characteristic of the respondents of the small companies was 'working

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

well with others.' Both respondents indicated that the most desirable characteristics were difficult to find in young applicants.

The next study was Conference Board Survey of executives, 1984. The survey covered public affairs and training/personnel executives. The report indicated that the employers were concerned with the observed inability of high school graduates to function effectively as communicators. The primary problem for the employers was attitude toward work and the workplace. The following, in an order of preference, were considered as very laudable: strong personal impression in interview, strong recommendation from manager in a firm who knows the candidate personally, strong letters of character reference, strong scores on a written test and strong school grades.

A survey of Personnel Officers, Centre for Social Organisation of Schools, The Johns Hopkins University, 1984 was next on the list. A major point worth noting was that academic factors ranked among the lowest on the list. What employers want include strong personal impression in interview, strong recommendation from manager in a firm who knows the candidate personally, strong letters from previous employers, strong letters of character reference and strong scores on a written test. This finding was in the same wavelength with the Conference Board Survey of executives, 1984.

The last of the survey was on San Francisco Employers, 1983. The purpose was to find out the characteristics employers were looking for in entry-level applicants. It was directed at the hiring of young new entrants to the job market. It was found out that employers looked up for applicants that seemed serious about work and eager to get the job; those who seemed bright and alert, courteous and personable, who seemed to have the ability to learn

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

quickly, who had a neat appearance and appropriate dress, good reading ability and good ability with numbers and the least they looked up for was a record of achievement in school.

The survey that took almost two decades generally showed a lot of commonality on what employers require of applicants. Those important and common skills that ran through the various surveys were attitude, first impressions and recommendations.

One major deficiency of the surveys was that they almost focused on the already existing workers but not directed at people who recently left school. Again, not all the respondents who were pursued were available. For instance, out of the 6,000 of the NAM study, responses came from only 600 respondents.

Even though there were some lapses in the survey, the primary focus of the study of identifying a set of employability skills employers require of employees was achieved. These types of skills are referred to as "soft skills." The research conducted by Rosenbaum (2005), however, showed that although soft skills are often employers' highest priority, they are rarely taught in high schools or colleges. This resulted in the 'school achieving' to have been listed among the lowest skills required of employees. A research conducted by Carnevale (2005) also showed that students who do best in high school also do best on the job, but the match between the academic content in high school and the subsequent knowledge required on the job is not significant.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Skills in the Curriculum in Relation to Contextual Realities

A lot of scholarly works on contextual realities have been carried out. One of the major studies on contextual realities was Jansen's (1988) *Curriculum change and contextual realities: An analysis of recent trends in Black South African education*. In this research, three projects – The Science Education Project (SEP), The Molteno Project (MP) and The Fort Hare Project (FHP) – were critically examined and evaluated. The purpose was to examine and evaluate the response of each intended change, through its planning and implementation, to the contextual realities.

The Science Education Project began in 1975 with the aim of improving science education. In view of this, practical work in terms of laboratory exercises were introduced into the science lessons in black schools (MacDonald, & Rogan, 1985). The project was funded by the Anglo-American Corporation. The interest of the Corporation lied in the production of better quality manpower with the aim of reducing political tensions within the political arena (Jansen, 1988).

The findings showed that although practical work was prescribed in the syllabus, in general the closest pupils got to experimental work was reading about it in textbooks (Jansen, 1988; MacDonald, & Rogan, 1985). The project was therefore a complete failure.

Similar findings were revealed from the Molteno Project. It was revealed that contextual realities were not considered to any higher degree. The findings showed that contextual realities were considered only to the extent to which they served as a reference for technically efficient programmes (Jansen, 1988).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The Fort Hare Project was also a failure because there was a fundamental mismatch between the theoretical preparation of student teachers and the contextual realities of the school environment (Jansen, 1988; Millar, 1984). It was, therefore, advised that the relevance of acquired cognitive skills must be examined in relation to contextual realities. Again, any educational or curricular change in South Africa which has meaning to participants, and engages and empowers students in the critical transformation of contextual realities, will have to embody at least the following elements: a redefinition of educational goals, a reconstitution of educational relationships, a reinterpretation of African history, a reconstruction of curriculum content, and a reformulation of educational philosophy (Jansen, 1988).

Skills of the Curriculum and the Increasing rate of Unemployment

A curriculum is usually designed based on the diagnosis of needs of a society. One of the needs in the Ghanaian society today is the ability to solve the problem of unemployment among the youth. Somavia (2006) observes that in 2005, over 3 billion out of the 4.6 billion people were either working or looking for work. Also, from 1995 to 2005, the number of unemployed rose from 157.3 million to 191.8 million, thus, an increase of 21.9 per cent. Again, between 1995 and 2005, youth unemployment rates increased globally from 12.1 to 13.7 per cent.

The unemployment situation in the world today is really alarming. The transformation of world economies requires appropriate skills to match it. While Somavia (2006) describes the situation of current growth of economies as skill-biased, Berman and Machin (2004) advise that worldwide, firms

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

increasingly require workforces that are more flexible, more skilled and more adaptable to rapid changes in the business environment.

The skill-biased nature of the current economic and technological transformation, as Somavia (2006) observes, needs a drastic transformation in the design of the school curriculum to make it more relevant. In support of Somavia, Anderson and Gantz (2013) advise that the school curriculum should be designed based on the common core skills that employers will demand of students after they graduate. They also advocate for the design of a curriculum with core skills that are cross-functional and which can be layered as learning objectives. According to them when a curriculum is designed based on specifics as job training, it turns to be irrelevant. They, however, caution that since broad-based educational opportunities can be expected to provide only a portion of the skill and competences any specific occupation requires, new career aspirants will typically have only a small set of specific skills required to be successful in an occupation, hence, job training and on-going career development must be high on the agenda of every manager and enterprise.

Matching Skills of Curriculum with Work Related Skills

In the discussion of the relevance of the curriculum, the case of the Australian Curriculum, Assessment and Reporting Authority (ACARA) (2013) is used for illustrations. The curriculum, *Australian curriculum: work studies, years 9-10*, was written in response to key work-related issues facing young people today and their future. What informed the design of the curriculum was the concern that the gap between education and the work readiness of young people is widening, hence the need for an early and intense educational intervention.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The Australian curriculum was designed as an applied learning curriculum that adapts discipline-based learning to work contexts. It contains the talents, general capabilities and non-technical work readiness skills and knowledge that young people require to live and work in the rapidly changing global environment (ACARA, 2013). The curriculum aims to ensure that students in years 9 and 10 develop knowledge of work and the importance of lifelong learning; literacy, numeracy, ICT and interpersonal skills to work, interact and communicate with others in diverse contexts, using appropriate behaviours and protocols; skills and resilience to meet the demands of learning and work in post-school destinations; capacities to manage change and transition into work in an uncertain and changing future.

This applied learning curriculum focuses on practical-based learning experiences with realistic contexts. It involves students transferring work-related knowledge and understanding, mostly learned in a school setting, to realistic activities that reflect the world of work. Through these realistic activities, the students develop critical non-technical skills and characteristics such as organisation, decision-making, cooperation, problem-solving, risk-taking, critical thinking, creativity, adaptability and resilience that, ACARA (2013) says, are important for work and daily life in the 21st century.

One of the major characteristics of the curriculum is work exposure, which enables real contexts for learning in flexible environments by bringing the world of work into the classroom and taking the classroom to the world of work (ACARA, 2013). Among such exposures are: direct involvement in the workplace; visits to private and public enterprises and community

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

organisations; visits by industry experts, employers, employees, the self-employed to schools and industry visits by students.

The rationale behind students' interaction with employers, employees, the self-employed, entrepreneurs and community agencies, ACARA (2013) reveals, is that the dynamism of the workplace and its understanding need to be enhanced. This work exposure provides both the opportunities and impetus for students to explore and frame possible future work options and career pathways.

Since the guiding principle for the design of the senior high school curriculum was to emphasise the acquisition of knowledge and skills that also equip individuals for employment, it is expected that the curriculum will expose the students to the world of work by bringing the world of work to the classroom. It is also expected that the various schools would develop and expand ties with local industry, business, community agencies as well as education and training institutions (ACARA, 2013). According to ACARA, these partnerships form the main foundation for providing students with real work exposure opportunities and allow students to explore traditional and non-traditional employment options.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

CHAPTER THREE

METHODOLOGY

Overview

This chapter outlines the methodology used in the study. The major issues discussed include the research design, the study area, the target population, sample and sampling procedures and sample size. It further includes the units of analysis, data collection instruments, data collection procedures and it ends with theoretical propositions.

Study Area

Any of the senior high schools in the country could be selected for the study. However, one endowed senior high school that was offering all the seven elective programmes was selected for the study. There were four senior high schools in the country at the time of the research that fell within the best schools by Ghana Education Service (GES) (2014) criteria which offered all the seven programmes. These schools were Baidoo Bonso Senior High/Technical at the Ahanta West District in the Western Region, Mawuli Senior High School in Ho District in the Volta Region, Keta Senior High School in Keta District in the Volta Region and Tamale Senior High School in Tamale Metro District in the Northern Region.

Based on the GES (2014) criteria for school selection, Mawuli was among the four schools that offered all the seven programmes of the senior high school. Mawuli Senior High School was, therefore, chosen as the study area since it was purported to have provided the relevant data. Paul, Kleinhamner-Tramil and Fowler (2009, p. 62) state categorically that "purposive sampling logic is used in qualitative research so far as the object of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

study (a person, school, or school system) is a good example of the phenomenon being studied as it will provide relevant data." Mawuli Senior High School offered all the seven programmes at the senior high school. The relevance of the senior high school was viewed across all the seven programmes of the school curriculum. Mawuli Senior High therefore served as a good example of the study area to provide relevant data.

Research Design

The study's paradigm was social constructivism so qualitative approach was used and in particular a case study. It followed Yin's (1984, 1994) series of steps for designing and conducting a case study. It adopted a descriptive approach and used a multiple theoretical propositions which the study would test. A case study may either be exploratory, descriptive and explanatory (Yin, 1994), or interpretive and evaluative (Merriam, 1988). A case study may also select either a single case design by providing for in-depth investigation and rich description (Darke, Shanks, & Broadbent, 1998), or multiple cases by predicting similar results (literal replication) or producing contrasting results for predictable reasons (theoretical replication) (Yin, 1994).

The study used a descriptive single case design. The rationale for using this design was that the study sought to look at a phenomenon in its real-life context (case study) (Robson, 2002); it is also meant to give a narrative account of it (descriptive) (Merriam, 1988; Yin, 1994); finally, it sought to provide in-depth investigation and rich description (Darke, Shanks, & Broadbent, 1998).

Case studies, Nisbet and Watt (1984) say, have some strengths. The results of case studies are more easily understood by a wide audience. They

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

are immediately intelligible as they speak for themselves. Again, they catch unique features that may otherwise be lost in large scale data such as survey; these unique features might hold the key to understanding the situation. Case studies are strong on reality. They provide insights into other, similar situations and cases, thereby assisting interpretation of other similar cases. They can be undertaken by a single researcher without needing a full research team. They can embrace and build in unanticipated events and uncontrolled variables.

Three major weaknesses of case studies have been identified by Nisbet and Watt (1984). According to them, the results of case studies may not be generalisable except where other readers or researchers see their application. The results are not easily open to cross-checking; hence they may be selective, biased, personal and subjective. Case studies are prone to problems of observer bias, despite attempts made to address reflexibility.

In response to Nisbet and Watt (1984), Flyvbjerg (2004) clarifies issues on misunderstandings about case study research. According to him, case studies provide concrete, context-dependent knowledge that is more variable than the vain search for predictive theories and universals. Furthermore, one can often generalise on the basis of a single case, and that the case study can contribute to scientific development. In addition, the case study contains no greater bias towards verification of the researcher's preconceived notions than other methods of inquiry. On the contrary, Flyvbjerg reiterates, experience indicates that a case study contains a greater bias towards falsification of preconceived notions than towards verification. Finally, the case study is necessary and sufficient method for certain important research tasks in the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

social sciences and it is a method that holds up well when compared to other methods in the gamut or scope of social science research methodology.

Population

The study sought to find out the relevance of the senior high school curriculum in relation to contextual reality of the world of work. Specifically, the study tried to find out if the curriculum was responsive to the challenges of the world of work with regard to the graduating student of that curriculum. The target population of the study, therefore, comprised all final year students of Mawuli senior high schools in Ghana. It also included some selected resource personnel of various industries in Ghana.

Sampling Procedures

The study needed a concrete, context-dependent knowledge and experience of the contextual reality. In this case, an information-oriented sampling frame was used with the purpose to maximise the utility of information from small samples (Flyvbjerg, 2004) of single cases (Darke, Shanks, & Broadbent, 1998). The sampling frame therefore related to the specific problem under study and this was framed in the following thesis: "A curriculum that is relevant should be responsive to the challenges of the world of work of the graduating student of that curriculum."

Two selection procedures, a critical case selection procedure and a purposive sampling procedure, were used in selecting the sample. In a critical case selection procedure, a single endowed senior high school that "possesses all, or most, of the characteristics that one is investigating, more fully or distinctly than under 'normal' circumstances" (Robson, 2002, p. 182) was chosen.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

This selection procedure was taken after an Occupational Medicine Clinic. According to Flyvbjerg (2004), the Clinic wanted to find out whether people working with organic solvents suffered brain drain. The Clinic used a critical case selection in which a single workplace that fulfilled all safety regulations on cleanliness, air quality, etc. was strategically located. The study did not consider any representative sample among all those enterprises. Flyvbjerg (2004) claimed that this model became a critical case which had its problem thesis that: 'If brain damage related to organic solvents could be found at this particular facility, then it was likely that the same problem would exist at other enterprises that were less careful with safety regulations for organic solvents.' Thus, if the senior high school curriculum was not relevant in responding to the challenges of unemployment of the students in this endowed school under study, then it was most likely that the same problem might have existed in other schools that were less endowed in facilities and in human resources.

A purposive sampling procedure was also used in selecting key informants from industries. In key informant procedure, individuals who are particularly knowledgeable about the setting and/or topic are selected (McMillan, 1996). In the selection of the informants, the prospective related careers of the programmes were considered. These related careers are outlined in Table 6.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 6 - *Programmes and their Related Careers*

Programme	Related careers
Agriculture	crop production, animal production, fish farming, agricultural economics, agricultural mechanisation, veterinary medicine, agriculture and water management, agricultural engineering, irrigation engineering, horticulture, agricultural engineering, etc.
Science	nursing, dentistry, veterinary science, statistics, medicine, pharmacy, lab. technology, computer science, architecture, engineering, business, education, etc.
Technical	building technology, quantity surveying, geodetic engineering, telecommunication, engineering, architecture, mechanical engineering, electrical engineering, automobile, building construction, structural engineering.
Business	banking, financial analyst, accountant, management, stockbroker, investment analysts, business consulting, etc.
General Arts	journalism, editing, broadcasting, communications, tourism, armed forces, social work, pastoral duties, public relations, musicology, banking, law, drama, politics.
Visual Arts	graphic designing, textiles, leatherwork, jewellery, decoration, picture making, ceramics, painting, museum work, interior design, sculpture, etc.
Home Economics	catering, home management, nutrition, fashion designing, hotel management, interior decoration, food processing, confectionery, child care, beauty culture, laundries.

Source: After Ohene-Acquaye (Ed.) (2011). *AB's guide to top 101 senior high schools in Ghana*. Baatsona: Smartline Publishing Ltd.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Sample Size

The sample was selected from the sample frame consisting of all final year students of the senior high school and experts or resource personnel from industries. In all, twenty one students (3 each of the 7 programmes) were interviewed. This constituted those in the excellent position, average position and low performing position. The final year students were selected because they had by then gone through the curriculum. Also, they were selected because they served as a good example of the phenomenon being studied as it would provide relevant data (Paul, Kleinhamner-Tramil, & Fowler, 2009). This selection was a model example of 'most likely' case (Flyvbjerg, 2004) that could test the universality of the research thesis, "If those selected sampling frames that appear to have all that they need to demonstrate the relevance of the senior high school curriculum in relation to the world of work turn round to show irrelevance of the curriculum then it is 'most likely' that it will be irrelevant anywhere in the country."

The human resource personnel, fourteen in number from industries or from the world of work, were selected for interview based on the related careers. In short, the sample size of 21 students were selected from the final year students as they had by then gone through the curriculum. The resource personnel were also selected from both the formal and informal sectors of the economy. So in all, the researcher selected thirty five personalities for an interview. In addition to this, content analysis of the curriculum was also done.

Unit of Analysis

The problem under investigation was to find out the prospects of graduating senior high school students of a curriculum in relation to

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

employment. The study therefore sought to find out the relevance of such a curriculum. Four research questions were used to guide the study. These four research questions "determine the appropriate unit of analysis and number of cases" (Darke, Shanks, & Broadbent, 1998, p. 280). It is the unit of analysis, according to Darke, Shank and Broadbent (1998), that identifies what constitutes a case and a complete collection of data for one study of the unit of analysis forms a single case.

The four research questions provided four units of analysis, hence four single cases. For example, 1) the first unit of analysis was the content analysis to identify the skills contained thereof in the curriculum. 2) The study focused on graduating students of the senior high school curriculum, so the second unit of analysis was the graduating students and their acquisition of skills in class for employment in the community. A complete data collection for this unit of analysis was necessary because it needed to address the research question. 3) The human resource personnel's assessment of the skills in the curriculum could determine the relevance of the school curriculum. 4) Human resource personnel from industries could also identify the required work related skills or employable skills so they constituted another unit of analysis. In all, there were four units of analysis with the corresponding four single cases.

Data Collection Instruments

Empirical data is usually required to help validate or otherwise a theory. In this study, two instruments of data collection, interview guide and theme generating guide of content analysis, were used to gather data from the informants. The interview guide, as an instrument, was used because it served as a dynamic guide for conversation (Marrie-Lou, Christiane & Jorgen, 2011).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Also, the researcher's interest was to find out the experience of the senior high school students in transacting with the curriculum and the meaning they have made out of that experience (Paul, Kleinhammer-Tramill, & Fowler, 2009), hence the need for dynamic conversations. A theme generating guide of content analysis of the senior high school curriculum was also used because there was the need to establish the number and nature of skills embedded in the curriculum.

The development of the instrument for the interview followed the first two stages of Kvale's (1996) interview investigation procedure: thematisation and designing. In thematisation, the purpose of the study, an outline of the theoretical basis of the study, its broad aims, practical value and the reason for choosing the interview approach were considered. The general goals of the research were then translated into more detailed and specific objectives. Kvale (1996) posits that it is only through careful formulation of objectives at this point that will eventually help to produce the right kind of data necessary for satisfactory answers to the research problem.

In the design of the interview itself, the research objectives were translated into questions. This was done in such a way that the questions adequately reflected what exactly I wanted to find out. The single concepts or central phenomena on which the researcher wanted to gather data – students, employers and the curriculum – were considered.

The interview adopted direct and indirect framing of questions which ranged from general to specific. The questions invited factual or opinion answers. The questions were also both substantive and process. The substantive questions were experience, knowledge and sensory in nature. The

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

process questions were used to directly or indirectly ask for information and probe for further information. Both questions were closed-ended and open-ended since they were flexible and allowed the interviewer to probe for more depth or to clear up any misunderstandings. Open-ended questions generally encourage cooperation and help establish rapport. Cohen, Manion and Morisson (2007), however, posit that open-ended situations can also result in unexpected or unanticipated answers which may suggest hitherto unthought-of relationships or hypotheses. The closed-ended questions were structured into what is known as closed quantitative interview (Patton, 1980) in which questions and responses are fixed and the informant is to choose among alternative answers.

Interview guide, as an instrument for data collection, has some strengths and weaknesses. In the first place, an interview is a "flexible tool for data collection, enabling multi-sensory channels to be used: verbal, non-verbal, spoken and heard" (Cohen, Manion, & Morrison, 2007, p. 349). The interviewer can press not only for complete answers but also for responses about complex and deep issues. It is a potential means of pure information transfer (Kitwood, 1977). It is a means of gathering information that have direct bearing on the research objectives (Cohen, Manion, & Morrison, 2007, p. 351). Interview makes the interviewer come out with what the person knows (knowledge or information), what the person likes or dislikes (values and preferences) and what the person thinks (attitudes and beliefs) (Cohen, Manion, & Morrison, 2007; Tuckman, 1972). The interviewer is able to answer questions concerning both the purpose of the interview and any misunderstandings experienced by the interviewee, for it sometimes happens

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

in the case of the latter that the same questions have different meanings for different people. Rate of return of the administration of an interview is good as compared to questionnaire.

There are, however, some weaknesses of an interview. Among some of these weaknesses are that interviews are expensive in time and money. They are open to the interviewer bias. Again, they may be inconvenient for respondents. Furthermore, issues of interview fatigue may hamper the interview. In addition, anonymity may be difficult, and data yielded in the unstructured response are more difficult to code and quantify than data in the structured response (Cohen, Manion, & Morrison, 2007).

Data Collection Procedure

The purpose of a particular study usually determines the procedure appropriate to adopt for data collection. The purpose of this study was to find out the relevance of the senior high school curriculum in relation to contextual reality of the world of work. This procedure required for the analysis of the senior high school curriculum in order to determine the skills embedded in it. It also required the determination of the skills that the students acquired. Again, it required the identification of the skills employers usually require of employees.

In the content analysis of the senior high school curriculum, the syllabus of each of the seven programmes – Agricultural, General Science, Technical Drawing, Business, General Arts, Visual Arts and Home Economics – were analysed. The general objectives of the various syllabi that contained the skills were then scrutinised to help ascertain the various skills.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The frequency of the various skills of each syllabus was established. This helped to determine the most common skills and the major focus of emphasis. The skills were then compared with the skills that the senior high school students had acquired. They were also compared with the skills that employers usually require of employees.

The interview for data collection from students was structured and situated within the framework of Seidman's (1998, 2006) phenomenological interview methodology. This method focuses on three interviews of the participant's experience with the phenomenon: focused life history, details of the experience and reflection on meaning.

In the focused life history, the researcher explores the contexts and experiences that preceded the participant's experience with the phenomenon. The second interview focuses on the details of the experience while the final interview is the reflection on the meaning of the phenomenon for the participant and this serves as an opportunity for the individual to put the experience into the proper personal context. Seidman's (2006) methodology "has been used in numerous studies with generally good success" (Paul, Kleinhammer-Tramill, & Fowler, 2009, p.174).

The interview structure of Seidman (2006) was designed for conducting phenomenological interview but he endorses the adaptability of the method and the alternate use of it. According to him, "as long as a structure is maintained that allows participants to reconstruct and reflect upon their experience within the context of their lives, alterations to the three interview structure and duration and spacing of interviews can certainly be explored" (Seidman, 1998, p.15). Also, the method is "particularly well suited to social

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

science research as it provides the researcher with the structural flexibility to adjust the framework, as long as the researcher also maintains the integrity of the format" (Paul, Kleinhammer-Tramill, & Fowler, 2009, p. 172). The adjusted framework of the Seidman's (1998) phenomenological interview methodology is outlined in Figure 6.

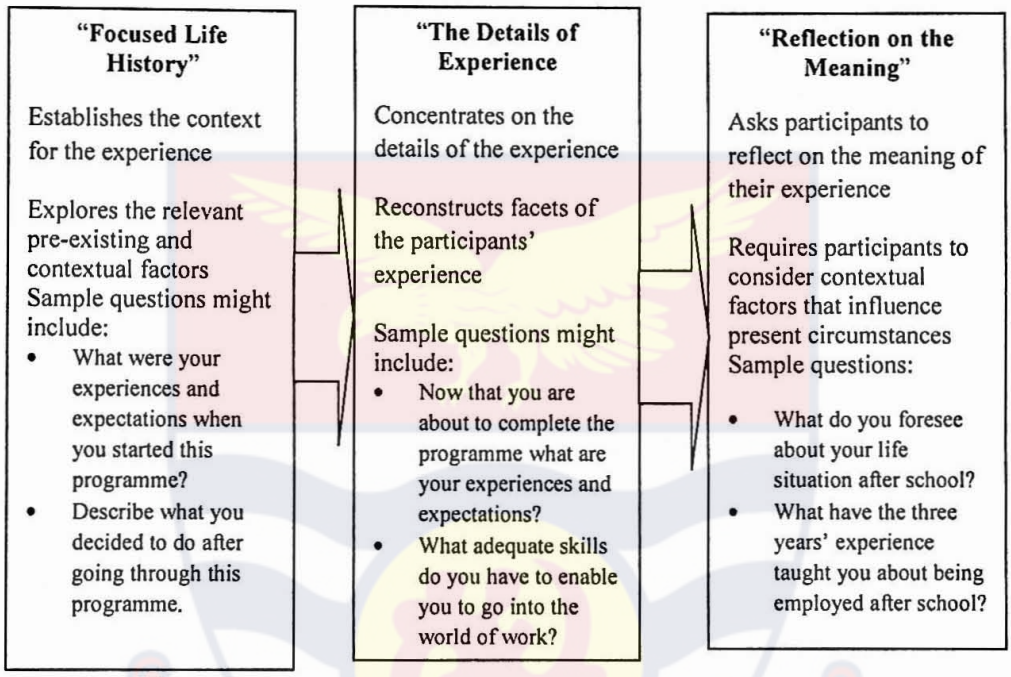

Figure 6. Interview Structure after Seidman's (1998) Methodology.

Source: Adapted from Seidman (1998, pp.11-12).

During the data collection, the researcher went to the school personally to interview the students. He first of all sought permission from the Headmaster of the institution. The Headmaster then made the subject tutors assist me by organising the students for the interview. The interview of the students was of two parts. The first part took the students through their preconceived ideologies before entry into the senior high school, their practical transaction with the school curriculum and their future perspectives. The three students for each programme were interviewed together. A question

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

would be posed them and each had an equal opportunity to respond. The researcher was preparing notes out of their responses and at the same time recording the interview.

The second part was the assessment of the students' familiarity to the skills embedded in the curriculum. The research had to read the instruction and explain the skills which were identified from the school curriculum for the students to tick based on the scale given. This procedure was adopted when the research realised that the students were not able to identify more than three skills from the curriculum. This same procedure was adopted when interviewing the fourteen selected industrial personnel.

Theoretical Propositions

A theoretical proposition is "a very specific operational statement of a phenomenon within its context that typically states exactly how and why the context influences the specific phenomenon" (Paul, Kleinhamer-Tramill, & Fowler, 2009, p. 61). According to Paul, Kleinhamer-Tramill and Fowler, these propositions are developed prior to the collection and analysis of data.

Even though many qualitative researchers vehemently resisted the idea of beginning a study with a theory, since to them qualitative researches are conducted without any preconceived ideas, Yin (1984, 1994) strongly supported the use of theoretical propositions and practically used such propositions prior to data collection. The development of these propositions prior to data collection helps to target and focus both data collection and data analysis (Paul, Kleinhamer-Tramill, & Fowler, 2009). Again, they provide a framework against which to compare and contrast the empirical data. Additionally, the propositions are based on the literature, expert opinion or a

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

combination of the two. Finally, the findings will determine which propositions are rejected or retained or fail to reject.

In the process of developing the theoretical propositions, Yin (1994) suggests the development of a "rival" theory but cautions that such "rival" theories should not be the mirror opposite of the propositions in the original theory since the "rival" theories can stand on their own. Again, Yin advised that theoretical propositions without "rival" theories can still work perfectly. Finally, Yin made it clear that there is no standard number of propositions in a given theory but it is advisable to use far above three to four propositions.

The theoretical propositions were based on the relevance of skills embedded in the senior high school curriculum, the relevance of skills the senior high school students acquire, the skills employers require of employees and the comparison of skills of curriculum with the skills employers demand of employees and finally, the comparison of skills students acquire with skills employers demand of employees. These propositions are stated in Table 7.

Table 7 - *Theoretical propositions*

Theoretical propositions of the relevance of the senior high school curriculum
Skills embedded in the curriculum
1. The skills in the curriculum with the highest frequencies are an embodiment of the application of knowledge.
2. The skills in the curriculum with the highest frequencies are basically within the affective domain.
3. The skills in the curriculum with the highest frequencies are basically within the psychomotor domain.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 7 (Continued)

Skills that students acquire

4. The first ten highest frequencies in the curriculum are the same first highest frequencies the students have acquired
5. Students acquire 'job training' skills.
6. Students acquire 'job readiness' skills.
7. Students acquire both theoretical and practical skills embedded in the curriculum.
8. Students acquire cross-functional skills.
9. Students acquire specific occupational skills.
10. Students acquire the skills of the world of work through direct involvement in the workplace.
11. Students acquire the skills of the world of work through visits to industry experts, employers, employees and self-employed to the school.
12. Students acquire the skills of the world of work through visits to private and public enterprises and community organisations.

Employers' rating of the skills in the curriculum

13. Employers rate all the skills in the curriculum as relevant.
14. The first ten highest frequencies of skills that employers rate of the skills in the curriculum are the same first ten highest frequencies of skills that emerge in the curriculum.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 7 (Continued)

The skills employers demand of employees and the skills in the curriculum
15. The skills in the curriculum are the same skills that employers demand of students for employment.
16. The first ten highest skills that employers demand of employees are the same first ten highest frequencies of skills in the curriculum.
The skills students acquire and the skills that employers demand of them.
17. The skills that students acquire from the curriculum are among the skills that employers demand of employees.
18. The first ten highest skills that the students have acquired are the same first ten highest skills employers demand of students.

Source: Researcher's construct

Data Analysis

Data obtained from content analysis of the senior high school curriculum were analysed with the help of NVivo 8. This was done through open coding of the skills into categories, identification of themes (cognitive, affective & psychomotor) and the use of Tree nodes for sub-themes. A final coding of the skills helped in the counting of frequencies. A simple statistical analysis (Microsoft Office Excel) for visual representations – tables and graphics – was also used (Anderson & Aresenault, 1995). In the case of the closed quantitative interview of students, a scale was used to rate the level of students' familiarity with the identifiable skills in the curriculum. A coding of the responses followed and statistical analysis using Microsoft Office Excel was adopted. This procedure of coding the skills was the same for the analysis

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

of the data from employers. The theoretical propositions were also analysed by comparing and contrasting them with the empirical data and this helped to reject or fail to reject the propositions.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

CHAPTER FOUR

RESULTS AND DISCUSSION

Overview

This chapter looks at the results and the discussion of the issues that have emerged from the study. It looks at five key concepts; first, the generic skills embedded in the senior high school curriculum. In this approach, all the seven selected programmes were analysed with the aim of identifying the generic skills in each programme and the overall generic skills for all the seven programmes.

The second major concept discussed in this chapter is the skills in the curriculum that students have acquired. In this approach, three final year students from each programme were interviewed to determine the skills that they have acquired from senior high school Form One to Form Three. The students had by then completed the syllabus and they were ready to write the West African Senior School Certificate Examinations (WASSCE). The level of the acquisition of skills by the students helped to compare the empirical data with the theoretical propositions outlined under Chapter Three.

The third aspect of this chapter deals with the employers' assessment of the skills that have been identified in the curriculum in order to ascertain the relevance of the curriculum. In addition to this, the employers' general views on the relevance of the curriculum are also ascertained. Two organisations for each programme of the senior high school were selected for interview purposely for this assessment.

The chapter concludes on the skills that employers demand of employees. In this regard, Two organisations [the same that assessed the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

relevance of the curriculum] for each senior high school programme were drawn for interview.

Responses to Research Questions

Research Question One: What skills does the curriculum contain that could be imparted to the students to enable them gain employment or go into self-employment? In response to this research question, content analysis of the senior high school curriculum was done and this helped to ascertain the skills contained in the curriculum.

Content Analysis of the Senior High School Curriculum

Content analysis is a technique for making replicable and valid references from data to their contexts. It involves coding, categorizing (creating meaningful categories into which the units of analysis – words, phrases, sentences etc. – can be placed), comparing (categories and making links between them), and concluding – drawing theoretical conclusions from the text (Cohen, Manion, & Morrison, 2007). In this process, the researcher identifies structures, patterns and regularities in the text and out of these structures, patterns and regularities he/she makes inferences. Anderson and Arsenault (1998) bring in a quantitative element into content analysis. According to them, content analysis involves counting concepts, words or occurrences in documents and reporting them in tabular form.

The eleven step-process of content analysis as suggested by Cohen, Manion and Morrison (2007) was followed in the analysis of the content of the senior high school curriculum. This begins with the identification of the population and sample size. The population consists of the whole senior high school curriculum. The sample size includes each of the seven programmes.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The senior high school curriculum was designed by the Curriculum Research and Development Division of the Ghana Education Service in 2010. The whole curriculum comprises seven programmes with each programme consisting of various combinations. The combinations vary from school to school, though with minimal changes. Within each school too, there are a number of combinations in each programme. The combinations considered in this study at Mawuli Senior High School include Agriculture [General Agriculture, Animal Husbandry, Chemistry and Physics]; General Science [Biology, Chemistry, Physics and Elective Mathematics]; Technical [Technical Drawing, Physics, Elective Mathematics and Building Construction]; Business [Business Management, Economics, Financial Accounting and Principles of Cost Accounting]; General Arts [Economics, Geography, Government and French]; Visual Arts [General Knowledge in Art, Textiles, Basketry and Economics] and Home Economics [Management-In-Living, Food and Nutrition, Chemistry and French]. The seven programmes remain the same in all senior high schools in Ghana but the subject combination may vary from school to school.

The units of analysis involved the words, phrases or sentences that constitute the skills. An open coding of the skills into categories was made in order to identify the key features or themes. Three major key themes were identified together with their sub-themes and these were based on Bloom's (1956) cognitive domain, Krathwohl, Bloom and Masia's (1964) affective domain and Harrow's (1972) psychomotor domain. These themes, together with their sub-themes, include: Cognitive [knowledge, comprehension, application, analysis, synthesis and evaluation], Affective [receiving,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

responding, valuing, organisation and characterisation], and Psychomotor [reflexive movement, fundamental movement, perceptual abilities, physical abilities, expressive movement and non-discrimination].

Through the use of 'Tree nodes' to represent the sub-themes the various skills were coded and this helped in the counting of the frequency of each code or skill. Once the frequencies have been calculated, a simple numerical or statistical analysis using Microsoft Office Excel proceeded in order to give visual representations in terms of tables and graphs. The overall themes and the sub-themes together with the respective programmes are represented in Table 8.

Table 8 - *Frequency of Skills in each Programme*

Skills	Frequency of skills in each programme							
	Agric	Sci	Tech.	Busi.	G. Arts	V. Arts	H. Econs	**Total**
Cognitive								
Knowledge	03	03	01	00	02	00	02	11
Comprehen.	08	21	14	06	69	06	74	198
Application	16	31	35	31	05	40	24	182
Analysis	02	02	00	00	05	00	07	16
Synthesis	03	01	00	00	01	01	06	12
Evaluation	07	11	10	00	01	00	06	35
Affective								
Receiving	00	00	00	00	00	00	00	00
Responding	01	06	01	00	00	00	00	08
Valuing	157	101	98	144	68	83	64	715
Organisation	00	00	00	00	00	00	00	00
Characteristics	23	37	14	44	49	58	32	257

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 8 (Continued)

Psychomotor								
Reflexive	00	00	00	00	00	00	00	00
Fundamental	00	00	00	00	00	00	00	00
Percep. ability	00	00	00	00	00	00	00	00
Physic ability	01	01	00	00	00	00	01	03
Skilled mov't	01	03	02	00	00	00	01	07
Express mov't	00	00	00	00	00	00	00	00
Non-discrim.	00	00	00	00	00	00	00	00
Total	**222**	**217**	**175**	**225**	**200**	**188**	**217**	**1444**

(Source: Researcher's construct)

Table 8 shows that the highest frequency of skills falls under valuing (affective). This is followed by characterisation (affective). Cognitive skills of comprehension, application, evaluation, analysis, synthesis and knowledge come next. Those with the lowest are the skills of psychomotor. In all, skills of affective domain constitute a frequency value of 980 while that of the cognitive domain contains a frequency value of 454. The skills of the psychomotor have only 10 frequency value. These frequencies are visually represented in Figure 7.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

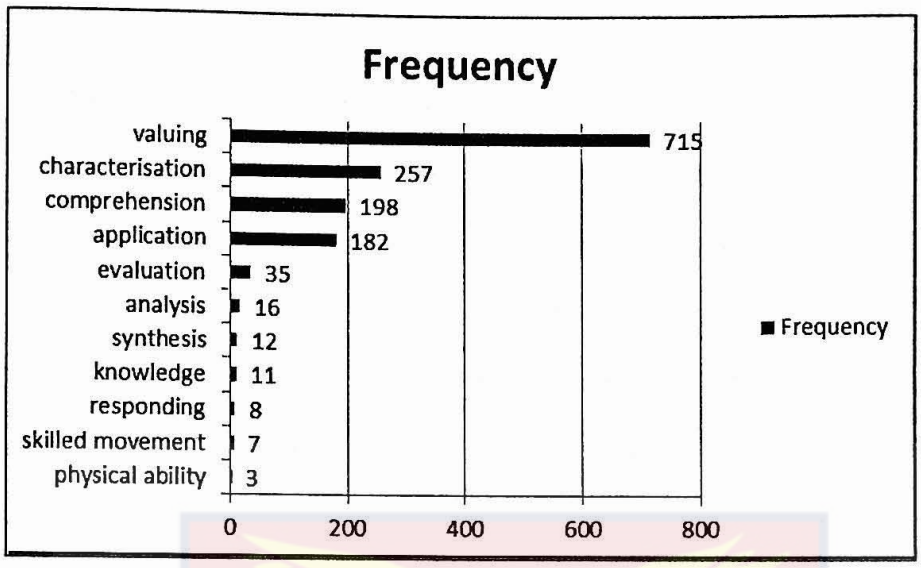

Figure 7. Frequency of Skills of the Senior High School Curriculum

From Figure 7, it can be deduced that most of the skills in the senior high school curriculum emphasise the teaching and learning of skills of the affective domain (valuing and characterisation). Even though the three domains – the cognitive, the affective and psychomotor – have their respective skills, it is rather the skills of the affective domain that dominate the senior high school curriculum.

In order to identify the details of the skills in each programme and the frequency thereof, the various skills in each programme have been critically analysed. The frequencies of individual skills in each programme in the form of tables and figures are tabulated and outlined in the subsequent sub-headings.

Generic Skills of the Agricultural Programme

The skills of each of the programmes have been embedded in the general objectives of the senior high school syllabi/curricula (Ghana Education Service, 2010). The generic skills of the Agricultural programme were analysed and it was found out that there were in all 27 skills in the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

programme with a total frequency of 222 (100%) (Table 9). Out of this number, the most common skills are the appreciation of all aspects of agriculture (in terms of its role, importance, basic principles, etc.) with a frequency of 51 (22.97%); recognition skills (of various occupations of agriculture for the youth, soil as a living entity, the need for farm power, etc.) with a frequency of 50 (22.52%); awareness skills (of the importance of agriculture to national economy, the origin and nature of soil, safety precautions, etc.) with frequency of 42 (18.92%); the rest of the skills fall below 10% and the least among them are the skills for relation, handling, determining, interpretation, communication, management, maintenance, planning, prediction, designing, performance and exploration with each having a frequency of one (1) (0.45%).

Table 9 - *Generic Skills of the Agricultural Programme*

Skills	frequency of skills				
	General Agric	Animal Husbandry	Chemistry	Physics	**Total**
Appreciation	15	10	01	25	**51**
Recognition	15	11	15	09	**50**
Awareness	15	09	05	13	**42**
Understanding	00	00	13	09	**22**
Acquisition	04	08	00	00	**12**
Application	05	00	02	00	**07**
Development	00	03	00	02	**05**
Utilisation/using	03	00	02	00	**05**
Demonstration	01	00	03	00	**04**
Showing	00	00	03	00	**03**
Adoption	02	00	00	00	**02**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 9 (Continued)

Description	01	00	01	00	**02**
Familiarity	00	02	00	00	**02**
Identification	01	00	01	00	**02**
Communication	00	00	01	00	**01**
Designing	00	00	01	00	**01**
Determining	00	00	01	00	**01**
Exploration	00	00	01	00	**01**
Handling	01	00	00	00	**01**
Interpretation	00	00	01	00	**01**
Maintenance	01	00	00	00	**01**
Management	01	00	00	00	**01**
Measurement	01	00	00	00	**01**
Performance	00	00	01	00	**01**
Planning	00	01	00	00	**01**
Prediction	00	00	01	00	**01**
Relation	01	00	00	00	**01**
Total	**67**	**44**	**53**	**58**	**222**

(Source: Researcher's construct)

The skills, as presented in Table 9, are graphically represented in Figure 8. The figure shows the first ten skills. The highest among them are appreciation, recognition, awareness and understanding. None of the rest even has half of the frequency of the skill of understanding which is the fourth highest.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

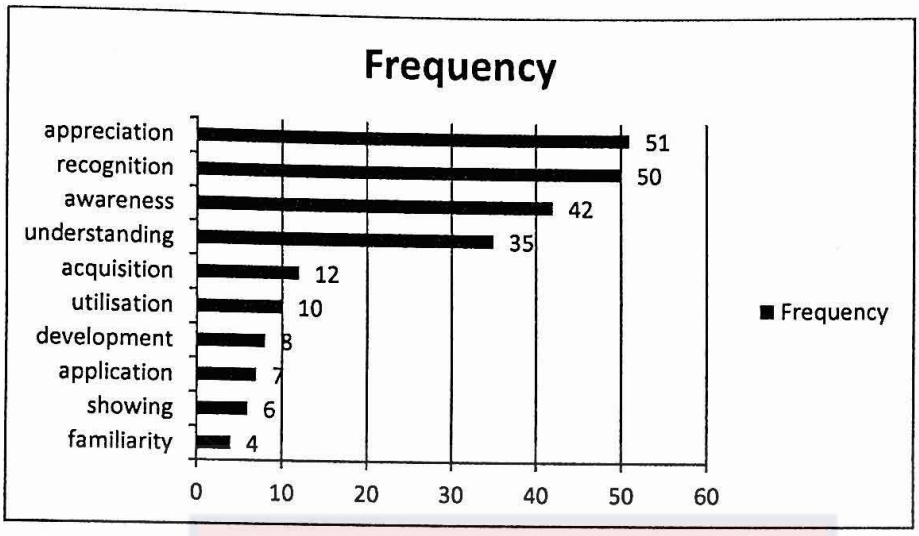

Figure 8. Frequency of Skills of the Agricultural Programme

Generic Skills of the Science programme

The skills of the Science programme were also analysed. There were in all 34 skills with a frequency of 217 (100%). The most common skills were six: appreciation skills 47 (21.66%); recognition skills and understanding skills 36 (16.59%) each; awareness skills 19 (8.76%); application skills 17 (7.83%) and utilisation skills13 (5.99%). The rest of the skills fell below 3%.

Table 10 - *Generic Skills of the Science Programme*

Skills	frequency of skills per subject				
	Biology	Elective Maths	Chemistry	Physics	**Total**
Appreciation	18	03	01	25	**47**
Recognition	05	07	15	09	**36**
Understanding	14	00	13	09	**36**
Awareness	01	00	05	13	**19**
Application	01	14	02	00	**17**
Utilisation/using	01	10	02	00	**13**
Finding	00	06	00	00	**06**
Distinguishing	01	03	00	00	**04**
Calculation	00	03	00	00	**03**
Demonstration	00	00	03	00	**03**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 10 (Continued)

Relation	02	01	00	00	**03**
Resolution	00	03	00	00	**03**
Showing	00	00	03	00	**03**
Ability	01	01	00	00	**02**
Determining	00	01	01	00	**02**
Development	00	00	00	02	**02**
Explanation	00	02	00	00	**02**
Identification	01	00	01	00	**02**
Representation	00	02	00	00	**02**
Acquisition	01	00	00	00	**01**
Assigning	01	00	00	00	**01**
Carrying out	00	01	00	00	**01**
Communication	00	00	01	00	**01**
Description	00	00	01	00	**01**
Designing	00	00	01	00	**01**
Differentiation	00	01	00	00	**01**
Drawing	00	01	00	00	**01**
Exploration	00	00	01	00	**01**
Interpretation	00	00	01	00	**01**
Listing	00	01	00	00	**01**
Performance	00	00	01	00	**01**
Prediction	00	00	01	00	**01**
Solution	00	01	00	00	**01**
Writing	00	01	00	00	**01**
Total	**47**	**62**	**53**	**58**	**217**

(Source: Researcher's construct)

The skills, as presented in Table 10, are graphically represented in Figure 9. The figure shows the first ten skills. The highest of all is the skill of appreciation followed by both understanding and recognition which have the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

same figure of 36. The skill of awareness is the next highest. The first four highest are skills under the affective domain.

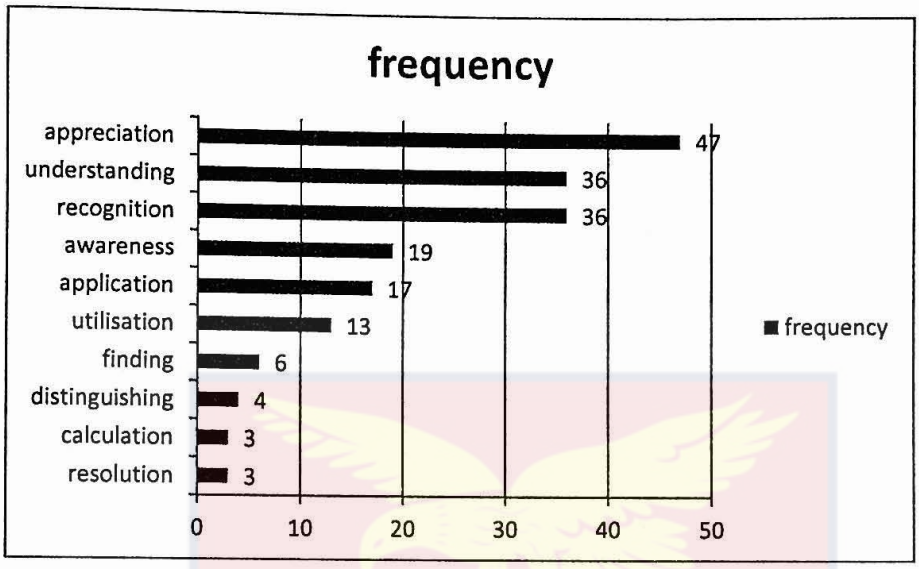

Figure 9. Frequency of Skills of the Science Programme

Generic Skills of the Technical Drawing Programme

In the analysis of the Technical Drawing programme, 23 skills were identified. The frequency of the 23 skills was 175 (100%). The most common skills were identified to be appreciation 31 (17.71%); acquisition 26 (14.86%); recognisance 24 (13.71%); application 18 (10.29%); awareness 17 (9.71%); understanding 13 (7.43%); utilisation 10 (5.71%); development 7 (4%) and finding 6 (3.43%). The remaining skills fell below 2%. These skills can be referred to in Table 11.

Table 11 - *Generic skills of the Technical Drawing programme*

Skills	frequency of skills per subject				
	Tech. Drawing	Elective Maths	Build. Const.	Physics	**Total**
Appreciation	00	03	03	25	**31**
Acquisition	09	00	17	00	**26**
Recognition	04	07	04	09	**24**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 11 (Continued)

Application	03	14	01	00	**18**
Awareness	02	00	02	13	**17**
Understanding	03	00	01	09	**13**
Utilisation/using	00	10	00	00	**10**
Development	04	00	01	02	**07**
Finding	00	06	00	00	**06**
Calculation	00	03	00	00	**03**
Distinguishing	00	03	00	00	**03**
Resolution	00	03	00	00	**03**
Determining	00	01	01	00	**02**
Explanation	00	02	00	00	**02**
Representation	00	02	00	00	**02**
Ability	00	01	00	00	**01**
Carrying out	00	01	00	00	**01**
Differentiation	00	01	00	00	**01**
Drawing	00	01	00	00	**01**
Listing	00	01	00	00	**01**
Relation	00	01	00	00	**01**
Solution	00	01	00	00	**01**
Writing	00	01	00	00	**01**
Total	**25**	**62**	**30**	**58**	**175**

(Source: Researcher's construct)

The skills, as presented in Table 11, are graphically represented in Figure 10. The figure shows a mixture of the skills of affective and cognitive.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

For instance, the skill of application (cognitive) comes before the skills of awareness and understanding (affective).

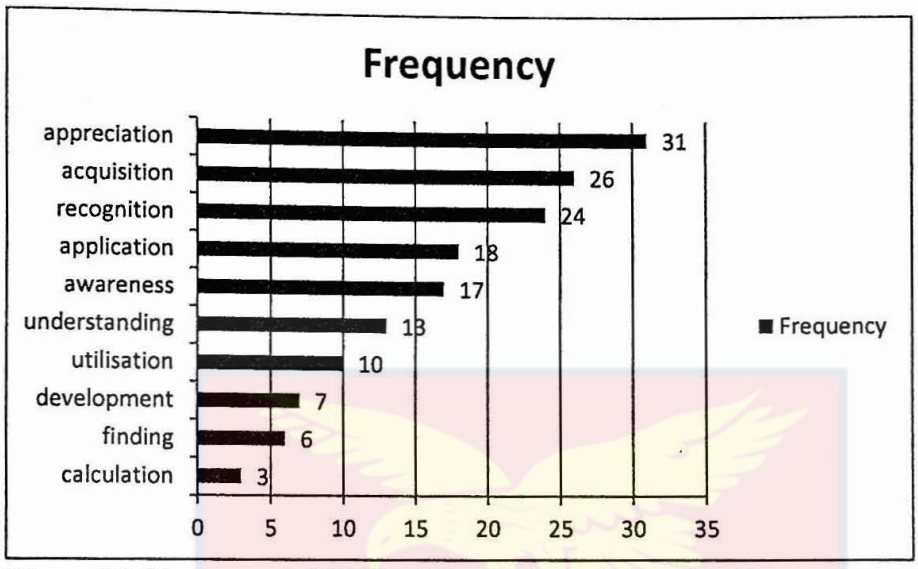

Figure 10. Frequency of Skills of the Technical Drawing Programme

Generic Skills of the Business Programme

The analysis of the skills for the Business programme revealed 11 skills with a total frequency of 225 (100%). The most common skills were the skills of appreciation which had the frequency of 61 (27.11%); skills of understanding 43 19.11%); skills of awareness 33 (14.67%); development 30 (13.32%); acquisition 28 (12.44%) and recognisance 22 (9.78%). The remaining skills of identification, ability, knowing, computing and predisposition fell below 2%. Refer to Table 12.

Table 12 - *Generic Skills of the Business Programme*

Skills	frequency of skills per subject				
	Business Management	Economics	Financial Accounts	Principles of Costing	**Total**
Appreciation	15	22	14	10	**61**
Understanding	05	35	00	03	**43**
Awareness	07	06	17	03	**33**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 12 (Continued)

Development	05	00	24	01	**30**
Acquisition	05	00	15	08	**28**
Recognition	09	09	04	00	**22**
Identification	01	01	00	01	**03**
Predisposition	00	00	00	02	**02**
Ability	00	00	00	01	**01**
Computing	00	00	01	00	**01**
Knowing	00	00	01	00	**01**
Total	**47**	**73**	**76**	**29**	**225**

(Source: Researcher's construct)

The skills, as presented in Table 12, are graphically represented in Figure 11 below. The figure shows the first ten skills. The first three of the skills fall under the affective domain followed by two skills under the cognitive domain. Apart from development, acquisition and recognition, the rest do not have any high frequencies.

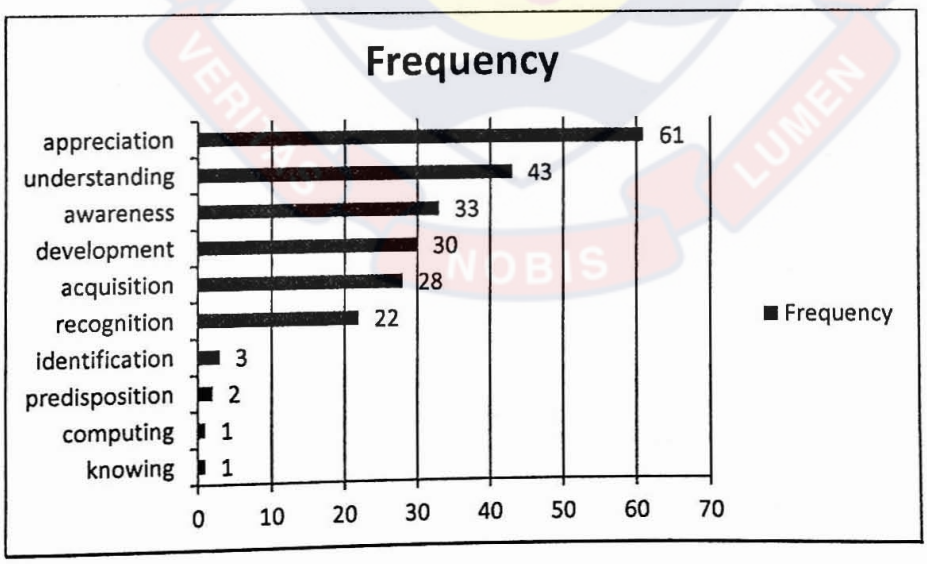

Figure 11. Frequency of Skills of the Business Programme

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Generic Skills of the General Arts Programme

The generic skills of the General Arts programme consisted of 20 skills with a frequency of 199 (100%). The most common skills among the 20 were the skills of understanding 39 (19.60%); appreciation 31 (15.58%); speech/communication 22 (11.06%); description 21 (10.55%); recognisance 14 (7.04%); awareness 11 (5.52%) and ability (e.g. of manipulating light microscope, to convince others logically on statements made, etc.) 10 (5.03%). The rest of the skills fell below 3%. These skills are outlined in Table 13.

Table 13 - *Generic Skills of the General Arts Programme*

Skills	frequency of skills per subject				
	Geography	Economics	Government	French	**Total**
Understanding	03	35	01	00	**39**
Appreciation	00	22	09	00	**31**
Speech	00	00	00	22	**22**
Description	00	00	00	21	**21**
Acquisition	14	00	00	00	**14**
Recognition	00	09	03	00	**12**
Awareness	04	06	01	00	**11**
Ability	00	00	00	10	**10**
Asking and answering	00	00	00	05	**05**
Communication	00	00	00	05	**05**
Exposure	00	00	00	05	**05**
Expression	00	00	00	05	**05**
Summary	00	00	00	05	**05**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 13 (Continued)

Explanation	00	00	00	04	**04**
Restructuring	00	00	00	03	**03**
Argument	00	00	00	02	**02**
Locating & analysing	00	00	00	02	**02**
Development	01	00	00	00	**01**
Identification	00	01	00	00	**01**
Showing	00	00	01	00	**01**
Total	**22**	**73**	**15**	**89**	**199**

(Source: Researcher's construct)

The skills, as presented in Table 13, are graphically represented in Figure 12. Among the first ten skills those with the highest frequencies are the skills of understanding, appreciation, speech, etc. The least among the ten skills is the skill of questioning and answering.

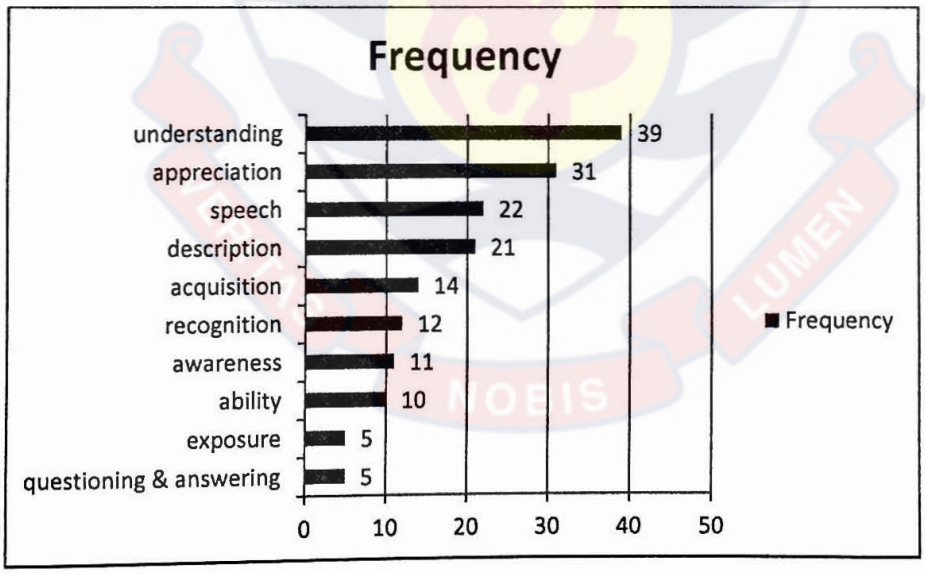

Figure 12. Frequency of Skills of the General Arts Programme

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Generic Skills of the Visual Arts Programme

The analysis of the skills of the Visual Arts programme revealed a total of 11 skills with a total frequency of 188 (100%). Out of the 11 skills, the most common among them included the skills of understanding 55 (29.26%); skills of development 36 (19.15%); appreciation 32 (17.02%); awareness 21 (11.17%); acquisition 16 (8.51%) and recognisance 14 (7.45%). The remaining skills of application, identification, ability, exposure and reflection fell below 3%. These skills are represented in Table 14.

Table 14 - *Generic Skills of the Visual Arts Programme*

Skills	frequency of skills per subject				
	Gen. Know. in Arts	Economics	Basketry	Textiles	**Total**
Understanding	07	35	08	05	**55**
Development	12	00	15	09	**36**
Appreciation	05	22	00	05	**32**
Awareness	05	06	03	07	**21**
Acquisition	04	00	07	05	**16**
Recognition	00	09	03	02	**14**
Application	01	00	02	01	**04**
Ability	02	00	00	01	**03**
Exposure	02	00	00	01	**03**
Identification	02	01	00	00	**03**
Reflection	01	00	00	00	**01**
Total	**41**	**73**	**38**	**36**	**188**

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The skills, as presented in Table 14, are graphically represented in Figure 13 below. Among the first ten skills, acquisition is the highest. In this Figure, the skills of affective domain such as appreciation, understanding, awareness and recognition do not stand out as the highest skills. The skill of identification is the least among the first ten skills with the highest frequencies.

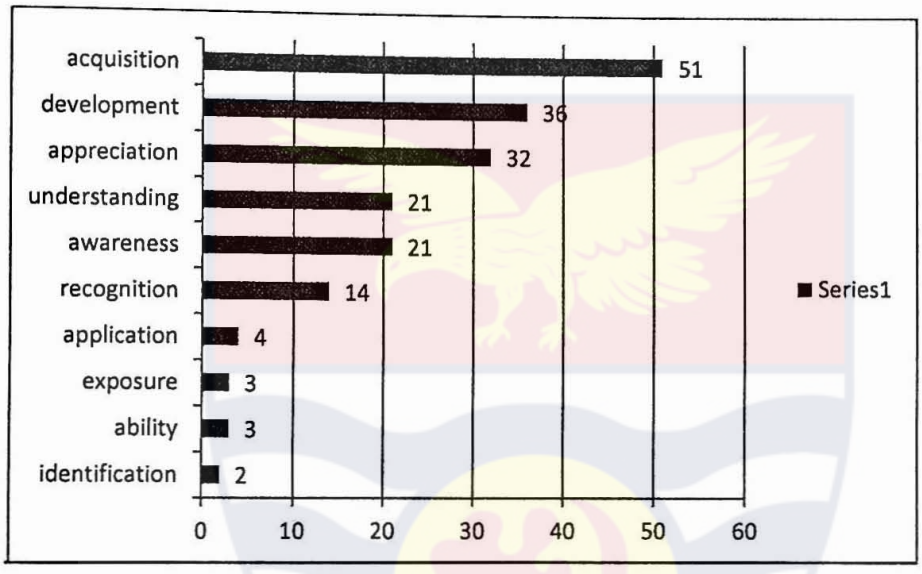

Figure 13. Frequency of Skills of the Visual Arts Programme

Generic Skills of the Home Economics Programme

When the skills for the Home Economic programme were analysed, 34 of them were identified. These 34 skills had the frequency of 217 (100%). The frequency of each skill was very low because the highest among them included the skills of recognition which comprised 28 frequencies with an equivalent percentage of 12.9; this was followed by the skills of description, understanding and restructuring or reconstitution with the same value of frequency of 22 (10.14%) each; appreciation and awareness with the same value of frequency of 15 (6.91%) each; development 13 (5.99%) and skills for

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

explanation 10 (4.61%). The rest of the skills, as may be seen in Table 15 fell below 3%.

Table 15 - *Generic skills of the Home Economics programme*

Skills	frequency of skills per subject				
	Management in Living	Food & Nutrition	Chemistry	French	**Total**
Recognition	08	05	15	00	**28**
Description	00	00	01	21	**22**
Speech	00	00	00	22	**22**
Understanding	06	03	13	00	**22**
Appreciation	08	06	01	00	**15**
Awareness	02	08	05	00	**15**
Development	04	09	00	00	**13**
Ability	00	00	00	10	**10**
Acquisition	02	04	00	00	**06**
Communication	00	00	01	05	**06**
Application	02	01	02	00	**05**
Questioning & answ.	00	00	00	05	**05**
Exposure	00	00	00	05	**05**
Expression	00	00	00	05	**05**
Summary	00	00	00	05	**05**
Explanation	00	00	00	04	**04**
Demonstration	00	00	03	00	**03**
Restructuring	00	00	00	03	**03**
Showing	00	00	03	00	**03**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 15 (Continued)

Utilisation/using	00	01	02	00	**03**
Argument	00	00	00	02	**02**
Locating & analysing	00	00	00	02	**02**
Planning	01	01	00	00	**02**
Conservation	01	00	00	00	**01**
Designing	00	00	01	00	**01**
Determining	00	00	01	00	**01**
Examination	01	00	00	00	**01**
Exploration	00	00	01	00	**01**
Identification	00	00	01	00	**01**
Interpretation	00	00	01	00	**01**
Judgement	01	00	00	00	**01**
Performance	00	00	01	00	**01**
Practice	01	00	00	00	**01**
Prediction	00	00	01	00	**01**
Total	**37**	**38**	**53**	**89**	**217**

(Source: Researcher's construct)

The frequency of skills, as presented in Table 15, is graphically represented in Figure 14. Three of the skills after the highest skill of recognition have the same value of frequency. These skills are the skills of speech, description and understanding. The least among the skills are the skills of communication and acquisition.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

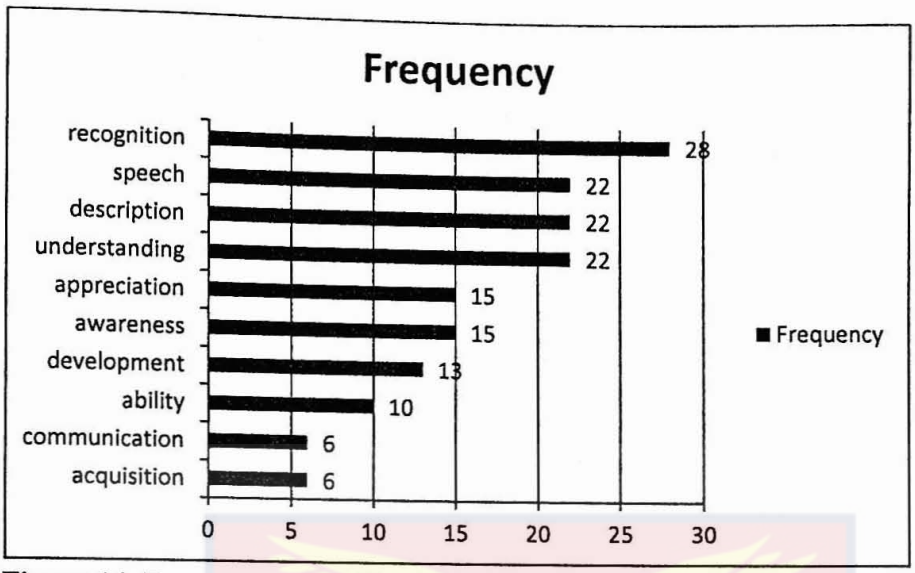

Figure 14. Frequency of Skills of the Home Economics Programme

Generic Skills of all the Seven Programmes

The next stage of the analysis of the skills was to put together all the seven programmes. In all, 58 skills were identified with a total frequency of 1,447 representing 100%. Nine of the skills ranged between 3.04% and 18.52% and these served as the most common skills. These skills included, from the highest to the lowest, appreciation 268 (18.52%); skills of understanding 230 (15.89%); skills of recognising 186 (12.85%); skills of awareness 158 (10.92%); skills of acquisition 103 (7.12%); skills of development 94 (6.50%); skills of application 51 (3.52%); skills of description 3.18%) and the skills of speech/communication 44 (3.045%). These nine common skills represent 75.33% skills. The remaining 49 (24.67%) skills fell below 3%. The frequency of the skills per programme are in Table 16.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 16 - *Generic Skills of all the Seven Programmes*

Skills	frequency of skills per programme							
	Agric.	Science	Techni.	Busi	General Arts	Visual Arts	Home Econs	**Total**
Appreciation	51	47	31	61	31	32	15	**268**
Understanding	22	36	13	43	39	55	22	**230**
Recognisance	50	36	24	22	12	14	28	**186**
Awareness	42	19	17	33	11	21	15	**158**
Acquisition	12	01	26	28	14	16	06	**103**
Development	05	02	07	30	01	36	13	**094**
Application	07	17	18	00	03	04	05	**054**
Description	02	01	00	00	21	00	22	**046**
Speech	00	00	00	00	22	00	22	**044**
Utilisation/using	05	13	10	00	00	00	03	**031**
Ability	00	02	01	01	10	03	10	**027**
Exposure	00	00	00	00	05	03	05	**013**
Communication	01	01	00	00	05	00	06	**013**
Explanation	00	02	02	00	04	00	04	**012**
Finding	00	06	06	00	00	00	00	**012**
Identification	02	02	00	03	01	03	01	**012**
Expression	00	00	00	00	05	00	05	**010**
Summary	00	00	00	00	05	00	05	**010**
Asking & ans.	00	00	00	00	05	00	05	**010**
Showing	03	03	00	00	00	00	03	**009**
Demonstration	04	00	00	00	00	00	03	**007**
Distinguishing	00	04	03	00	00	00	00	**007**
Calculation	00	03	03	00	00	00	00	**006**
Determining	01	02	02	00	00	00	01	**006**
Resolution	00	03	03	00	00	00	00	**006**
Restructure	00	00	00	00	03	00	03	**006**
Relation	01	03	01	00	00	00	00	**005**
Argument	00	00	00	00	02	00	02	**004**
Representation	00	02	02	00	00	00	00	**004**
Designing	01	01	00	00	00	00	01	**003**

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 16 (Continued)

Exploration	01	01	00	00	00	00	01	**003**
Performance	01	01	00	00	00	00	01	**003**
Planning	01	00	00	00	00	00	02	**003**
Prediction	01	01	00	00	00	00	01	**003**
Interpretation	01	01	00	00	00	00	01	**003**
Adoption	02	00	00	00	00	00	00	**002**
Carrying out	00	01	01	00	00	00	00	**002**
Drawing	00	01	01	00	00	00	00	**002**
Familiarity	02	00	00	00	00	00	00	**002**
Listing	00	01	01	00	00	00	00	**002**
Solution	00	01	01	00	00	00	00	**002**
Writing	00	01	01	00	00	00	00	**002**
Differentiation	00	01	01	00	00	00	00	**002**
Locat. & analy.	00	00	00	00	00	00	02	**002**
Predisposition	00	00	00	02	00	00	00	**002**
Assigning	00	01	00	00	00	00	00	**001**
Computing	00	00	00	01	00	00	00	**001**
Conservation	00	00	00	00	00	00	01	**001**
Examination	00	00	00	00	00	00	01	**001**
Following	00	00	00	00	01	00	00	**001**
Handling	01	00	00	00	00	00	00	**001**
Judgement	00	00	00	00	00	00	01	**001**
Knowing	00	00	00	01	00	00	00	**001**
Maintenance	01	00	00	00	00	00	00	**001**
Management	01	00	00	00	00	00	00	**001**
Practice	00	00	00	00	00	00	01	**001**
Reflection	00	00	00	00	00	01	00	**001**
Measurement	01	00	00	00	00	00	00	**001**
Total	**222**	**217**	**175**	**225**	**200**	**188**	**217**	**1444**

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The frequency of all the skills of the seven programmes, as presented in Table 16, is graphically represented in Figure 15. The figure shows the first ten skills. The skills in their order of value in terms of frequency are the skills of appreciation, understanding, recognition, awareness, acquisition and development, with application, description, speech and utilisation being the lowest in frequency.

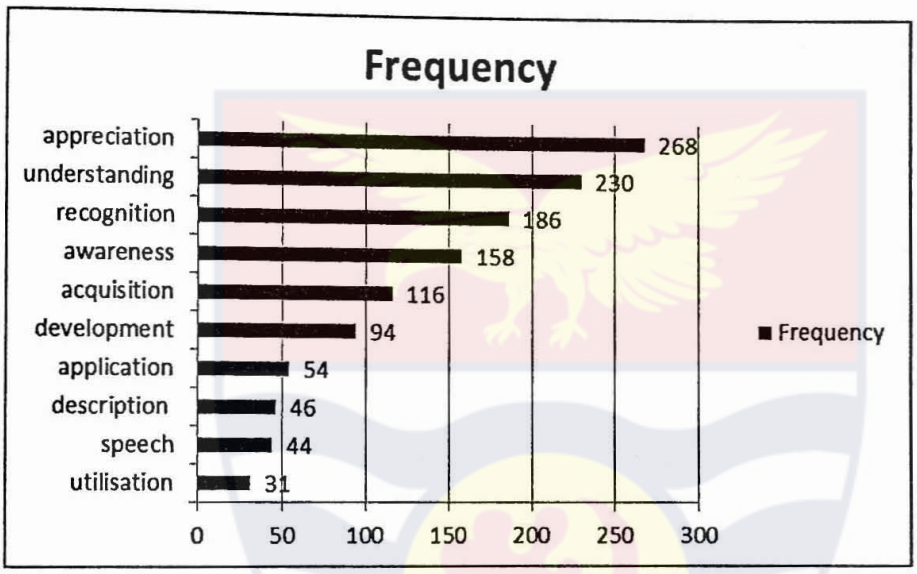

Figure 15. The First Ten Skills with the Highest Frequency of all the Seven Programmes

Discussion of the Generic Skills

From Table 16, it could be realised that the most common skills that have the highest frequency and that cut across all the programmes are the skills of appreciation 268 (18.52%); skills of recognition 186 (12.85%) and the skills of awareness 158 (10.92%). These same skills appeared as the highest in frequency in the Agricultural programme. For instance, skills of appreciation had frequency of 51 (22.97%) with the skills of recognisance having the frequency of 50 (22.52%) and that of the skills of awareness being

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

42 (18.92%). Apart from the skills of understanding that had a frequency of 22 (9.91%) the rest of the skills fell below 6%.

In the Science programme, the three skills – appreciation, recognition and awareness – as observed in the Agricultural programme – were still high as compared to the other skills in the Science programme. For instance, skills of appreciation had a frequency of 47 (21.66%) with the skills of recognition having a frequency of 36 (16.59%) while the skills of awareness 19 (8.76%) fell below those of Agricultural programme.

In the case of the generic skills for the Technical Drawing programme, the skills of appreciation still stood out with the frequency of 31 (17.71); the skills of acquisition 26 (14.86%), however, supersede those of the skills of recognition 24 (13.71%). Again, the skills of application 18 (10.29%) are higher than those of awareness 17 (9.71%). There is therefore a little shift of emphasis on the skills perhaps due to the technical nature of the Technical Drawing programme.

An observation of the Business programme also revealed that the skills of appreciation 61 (27.11%) were outstanding. There was a shift from the emphasis on the skills of awareness 33 (14.67%) and recognition 22 (9.78%) to the skills of understanding 43 (19.11%). Even the skills of development 30 (13.32%) and the skills of acquisition 28 (12.44%) superseded those skills of recognition 22 (12.44%).

In the General Arts programme, it was rather the skills of understanding 39 (19.60%) that stood out. These skills were followed by those skills of appreciation 31 (15.58%). Communication skills 22 (11.06%) were next of the continuum with skills of description 21 (10.55%) following. Those

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

skills of recognisance 12 (6.03%) and awareness 11 (5.52%) playing significant roles in the Agricultural, Science and Technical Drawing programmes were less recognised in the General Arts programme.

There is a significant shift of emphasis on skills in the Visual Arts programme. The most outstanding skills are those of the skills of understanding 55 (29.26%). These were followed by the skills of development 36 (19.15%). The skills of appreciation 32 (17.02%) and those of awareness 21 (11.17) still had a major role to play in the Visual Arts programme though not as recognised as in the Agricultural, Technical and Science programmes. The two other recognisable skills were those of acquisition 16 (8.51%) and recognition 14 (7.45%).

A critical observation of the Home Economic programme revealed yet another drastic shift in the emphasis of skills. The skills of recognition 28 (12.90%), though among the prevalence of skills noticed in the Agricultural, Science and Technical programmes, was outstanding. Instead of the skills of awareness 15 (6.91%) and appreciation 15 (6.91%) coming next to the skills of recognisance, those skills of description 22 (10.14%), acquisition 22 (10.14%) and speech/communication 22 (10.14%) of the same values came next.

Frequency of Skills of the Core Subjects

The frequency of skills of the core subjects was added to the frequency of skills of all the seven programmes. The total number of skills of the core subjects (English Language, Mathematics, Integrated Science, Social Studies and Information and Communication Technology) was 56 with a total frequency of 178. The outcome of the totality of skills of all the seven

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

programmes and those of the core subjects, with regard to the first ten skills with the highest frequency, is visually represented in Figure 16 below.

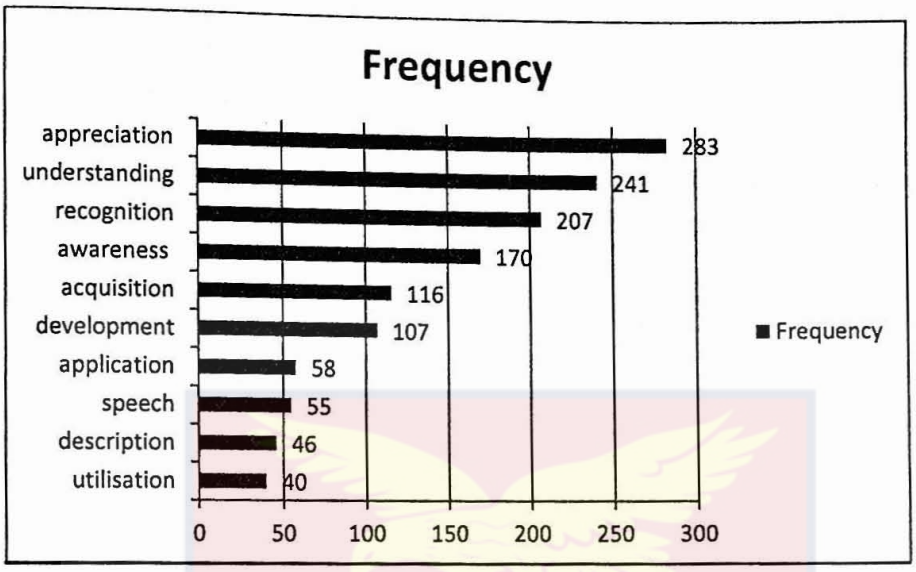

Figure 16. Skills with the highest frequencies in the SHS curriculum.

Figure 16 contains the first ten skills with the highest frequencies of the overall skills of both the seven programmes and the five core subjects. The order of value of the frequencies as they featured in all the seven programmes has not changed with the addition of the skills from the core subjects.

From the above discussion it could be realised that the 10 most common skills from the senior high school curriculum, the skills with more than 30 frequencies, from their order of value, were the skills of appreciation 283 (17.4%); skills of understanding 241 (14.8%); skills of recognition 207 (12.7%); skills of awareness 170 (10.4%); skills of acquisition 116 (7.1%); skills of development 107 (6.5%); skills of application 58(3.6%); skills of speech/communication 55 (3.4%); skills of description 46 (2.8%) and skills of utilisation/using 40 (2.5%).

The senior high school curriculum, in sum, contains 56 skills of the core subjects with a total frequency of 178; it also reveals a total of 59 skills of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

all the seven programmes with a total frequency of 1,458. The overall number of skills contained in the senior high school curriculum reads 115 with an overall frequency of 1,631.

Theoretical Propositions 1, 2 and 3

1. The skills in the curriculum with the highest frequencies are an embodiment of the application of knowledge.
2. The skills in the curriculum with the highest frequencies are basically within the affective domain.
3. The skills in the curriculum with the highest frequencies are basically within the psychomotor domain.

At the lower level of the educational ladder, for example, at the junior high and senior high school levels, the cognitive, affective and psychomotor domains, depending on the programme one pursues, are highly considered. A vocational oriented programme, for example, will use a lot of practical work with a psychomotor domain standing out. Non-vocational programmes will focus on cognitive domain as against the psychomotor domain. Taking the cognitive domain, as an example, this is how, in Table 17, Valley View University (2005-2009) suggests a format for setting up examination questions which indirectly shows the focus of teaching and learning:

Table 17 - *Level of Emphasis on Cognitive Levels for Examination*

Cognitive domain	Suggested percentage of levels			
	100	200	300	400
Knowledge	40	20	10	10
Comprehension	30	20	10	10
Application	20	30	30	20
Analysis/synthesis	10	20	30	30
Evaluation	00	10	20	30

(Source: Valley View University (2005-2009). Academic Bulletin, p. 45)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

From Table 17, emphasis is laid on the lower levels of the cognitive domain. As one advances, application of the knowledge is the area of focus. The first ten skills of the senior high school curriculum with the highest frequencies are appreciation, understanding, recognition, awareness, acquisition, development, application, speech/communication, description and utilisation.

The first five skills with the highest frequencies constitute skills of affective domain, particularly skills of valuing. These five skills have a frequency value of 1,017 as against a frequency value of 306 of the cognitive skills of development, application, speech, description and utilisation. It can be concluded that the senior high school curriculum focuses on the skills of the affective domain, particularly skills of valuing. None of the skills falls under the psychomotor domain. The implication is that even the skills in the vocational oriented subjects do not have much emphasis. Also, the skills in the cognitive domain which focus on knowledge, comprehension, application, analysis, synthesis and evaluation do not have any major place in the curriculum.

Students' Acquisition of Skills from the Senior High School Curriculum

A curriculum is designed to contain the skills that students are to learn. The senior high school curriculum contains certain skills that each student is to acquire for the three year span. By the third year, it is assumed that every student might have learnt those skills. In view of this three final year students from each of the seven programmes were interviewed in order to determine the skills they have already acquired. A total of twenty-one (21) students, ten males and eleven females, participated in this interview. The high, average and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

low performance of students were considered before choosing the three students from each programme. This helped the researcher to get a representative of the calibre of students who go into the world of work or into furtherance of their education. These students had already gone through the senior high school curriculum and they were ready to sit for the West African Secondary School Certificate Examinations (WASSCE).

Research Question Two: What skills do the senior high school students acquire to enable them to secure employment or go into self-employment? In response to research question two, an interview of twenty one graduating students of Mawuli Senior High School in the Volta Region of Ghana was conducted.

Interview of Students

The interview was based on Seidman's (1998) methodology. In this methodology, the students' experience at the beginning of the programme was put into context; their detail experience with the curriculum for the three years was explored and the reflection on their experience in terms of employment was also looked at.

Focused Life History of Students

The first part of the students' interview focused on their life history in terms of their experience at the inception of the senior high school programme. Seidman (1998) opines that the focused life history of the interviewee explores the contexts and experiences that preceded the participant's experience with the phenomenon. In view of this, the first part of the interview sought to find out students' experiences and expectations at the beginning of the programme in terms of employment, self-employment or

SAM JONAH LIBRARY
UNIVERSITY OF CAPE COAST
CAPE COAST
Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

furtherance of their education and also to find out whether they had still held onto that decision.

Interview question 1: What were your experiences and expectations in terms of employment, self-employment or furtherance of your education when you started the senior high school programme?

In response to this question, all the twenty one students, except those students of the Business programme, said they wanted to further their education. All the three students of the Business programme said they wanted to do their own business. One emphasised on self-employment, another on marketing (whether self-employed or employed) and the other on his own business.

Interview question 2: Do you still hold onto that decision?

When the students were asked whether they were still holding onto their decision of going into the world of work or into furthering of their education, those who said that they wanted to further their education responded positively while the students of the Business programme answered negatively. In a nutshell, all the twenty one students concluded that they wanted to further their education. This led to the third interview question.

Interview question 3: Assuming you are right away going to work after the programme, what work will you like to do?

In response to this question, the students of the Agricultural programme said they would like to enter into manufacturing company, economics and agricultural industry respectively. Those of the Science programme said they would like to enter into the field of engineering; film (acting) industry and any job at all in any industry. In the field of Technical

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Drawing, the students said they preferred Electricity Company, electrical engineering and any assistance in any work place, as the lady said, *as a girl I can't start my own work.* Surprisingly, one Business student said she would like to go into nursing. Another informant preferred working in a vocational institution and the other helping her mom in carrying out her business in a provision store. The students of the General Arts programme said they would like to work in the Media House, the Movie Industry and also at the Movie Industry respectively. Thus, two of them wished they could work at the Movie Industry. The students in the Visual Arts programme would like to enter into Graphic Design, Interior Designing and Decoration while those of the Home Economics programme would prefer catering, self-employment in catering and finally assistance to the parent in his hospital business.

Details of Students' Experiences with the Curriculum

The second part of the interview focused on the details of students' experiences with the curriculum. Seidman (1998) says this second phase of the interview helps reconstruct facets of the participants' experience. In this section of the interview, the researcher wanted to find out the skills of the curriculum that the students have acquired to enable them to go into the world of work. It also involved practical related work skills in terms of visits to industries, industry personnel's visits to the school, school related practical skills, etc.

The researcher wanted to find out initially the skills the students had acquired from the curriculum that could help them to go into the employment of their interest that they had already indicated above. This scenario led to the next question for the interview:

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Interview question 4: What are the skills that you have acquired for these past three years that will enable you to do the job that you have chosen?

In response to this question, it was realised that the students found it very difficult to identify the specific skills they had acquired in order to go into the job of their interest. The following responses in the respective programmes attest to this. Students of the Science programme, for instance, said they had acquired skills of public speaking, knowledge about tools and knowledge in reading. Those students in the Technical Drawing programme also said they had acquired many skills. One student said, *I am very good in it [electrical], repairing of things like iron, phones, etc.* Another student said, *for me I am good at installation work; I am good in terms of lighting system.* The other student also said, *for me I know only the theory, I don't know the practical; I am not good at the practical like how to fix things.*

In the Business programme, one student claimed that *in business world we have learnt about factors of production; I take decision on my own.* Another student said that the skills he has acquired include *good reading, financial report, management in terms of the resources we have; also I have an idea of the field I want to go to, what is involved in marketing, the channel in marketing and production and my planning; I have a good planning.* The other student said a good customer relation and planning were the skills that she had acquired.

With regard to the General Arts programme, one student put it this way, *for me personally, I don't have any personal skills but I am depending on my talent.* Another student said that she had been taught, in economics, how to think critically, how to analyse certain things, "*yes and it has helped me to*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

think; it has helped me to communicate very well and to handle issues other people cannot do. The third student said she could also think critically. Again, in the area of Home Economics, the first said she had done a lot of practical work in terms of table setting. She had also learnt a lot in planning. The second student said she had learnt about decoration, thus garnishing, planning and how to customise and to know the number of quantity one person may need. Finally, the third person claimed that he would like to help his dad in a hospital and that *the hospital aspect is about the knowledge I have in my academic and by the help of my dad I will be able to come out with success.*

Closed Quantitative Interviews

The researcher observed from the interview that the students found it very difficult to identify the skills that they had acquired. None of the students could identify more than five of the skills as indicated in the syllabus. In view of this, the researcher used a closed quantitative interview. In this interview, responses were fixed and respondents chose from among these fixed responses (Patton, 1980). Specifically, the 'scale' was used. In this procedure, the skills in each of the programmes were rated and each respondent was to respond to them by indicating his or her familiarity with such skills. The individual's response was thus located on a scale of fixed alternatives. According to Cohen, Manion and Morrison (2007), the use of this technique along with open-ended questions is a comparatively recent development and means that scale scores can be checked against data elicited by the open-ended questions. This led to the next interview question.

Interview question 5: What is your familiarity with the skills in the curriculum? Now take the following pieces of sheet that contain the skills in

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

the curriculum of the senior high school programme. You are going to select from 0 – 4 in terms of your familiarity with the skill: [0 = not familiar at all; 1 = less familiar; 2 = familiar; 3 = more familiar; 4 = most familiar].

A detailed explanation of the skills was given to the students before they made any selection. The selection was also based on their familiarity or otherwise. The interview interaction with the students was recorded and subsequently transcribed. The coding of the responses followed and this helped in the counting of the frequency of occurrence of each skill.

In order to determine the frequencies of skills with which they were familiar or otherwise, a simple numerical or statistical analysis using Microsoft Office Excel was used. This process gave the total number of skills that the students were familiar with as against the total numbers of skills identified through the content analysis. The summary of the main features of each programme was given together with the visual representation in the form of graphs.

Students' Acquisition of Skills in the Agricultural Programme

There were a lot of skills identified in the syllabus of the Agricultural programme. There were, in all, twenty seven (27) of them. This figure was based on the result of the content analysis. The total number of frequency in terms of students' familiarity with the skills was sixteen (16). Thus, the four subjects of the programme with the highest ranking figure of four gave the figure sixteen. This figure of sixteen was then multiplied by the total number of skills that students were familiar with in order to arrive at four hundred and thirty two (432) skills. So, in all, there were four hundred and thirty two (432) skills in the Agricultural programme representing hundred percent (100%).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Out of the 432 (100%) skills in the Agricultural programme, student 'A' had acquired two hundred and eighty eight (288) skills representing 66.7%. Student 'B' also acquired two hundred and ninety seven (297) skills representing 68.8%. The third student, student 'C,' acquired two hundred and thirty five (235) skills which represent 54.4%. It can be concluded that the students have acquired a lot of the skills embedded in the Agricultural programme. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 18 below.

Table 18 - *Frequency of Skills Students Acquire in the Agricultural Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	432	288	66.7
B	432	297	68.8
C	432	235	54.4

(Source: Researcher's construct)

The figures in Table 18 suggest that the students in the Agricultural programme have acquired most of the skills enshrined in the curriculum. If the curriculum is finally established as relevant then the students have learnt most of the relevant skills in the Agricultural programme. The first ten of the most frequently learnt skills are presented in Figure 17.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

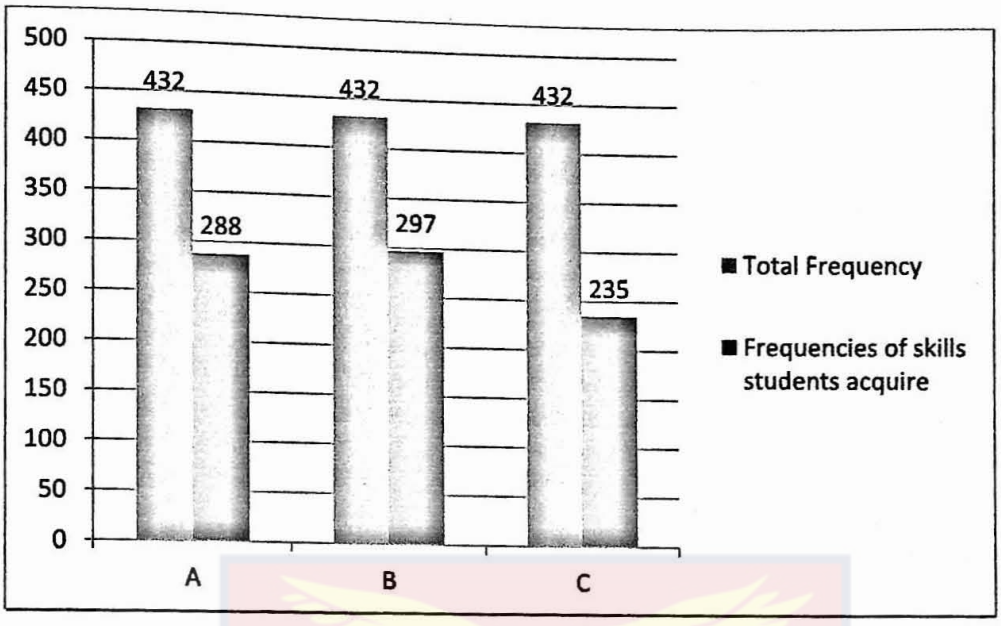

Figure 17. Skills Students Acquired in the Agricultural Programme

The first ten skills in the order of magnitude that the students in the Agricultural programme have acquired are the following: Student 'A': Skills of communication (5.6), demonstration (5.6), understanding (5.2), planning (4.5), measurement (4.5), development 4.2), familiarity (4.2), adoption (4.2), recognition (4.2) and awareness (4.2). Student 'B': the skills of maintenance (5.1), identification (4.7), showing, familiarity, management, demonstration and recognition all together as (4.4), communication (4.0), etc. Student 'C': skills of measurement (6.8), communication (6.4), prediction and familiarity (5.5), planning and interpretation (5.1), demonstration (4.7), etc.

Students' Acquisition of Skills in the Science Programme

In all, there were thirty four (34) skills in the science programme. The total number of frequency in terms of students' familiarity with the skills was sixteen (16). Thus, the four subjects of the programme with the highest ranking figure of four gave the figure sixteen. This figure of sixteen was then multiplied by the total number of skills to arrive at five hundred and forty four (544) skills representing hundred percent (100%).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Out of the 544 (100%) skills in the Science programme, student 'A' had acquired three hundred and forty one (341) skills representing 62.7%. Student 'B' also acquired two hundred and forty eight (248) skills representing 45.6%. The third student, student 'C,' acquired four hundred and ten (410) skills which represent 75.4%. It can be concluded that students 'A' and 'C' have acquired a lot of the skills embedded in the Science programme. However, student 'B' acquired below 50% of the skills. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 19 below.

Table 19 - *Frequency of Skills Students Acquire in the Science Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	544	341	62.7
B	544	248	45.6
C	544	410	75.4

(Source: Researcher's construct)

The figures in Table 19 suggest that two of the students have acquired most of the skills in the Science programme. However, one of the students acquired the skills that are below average. The figures in the table above are presented visually in Figure 18.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

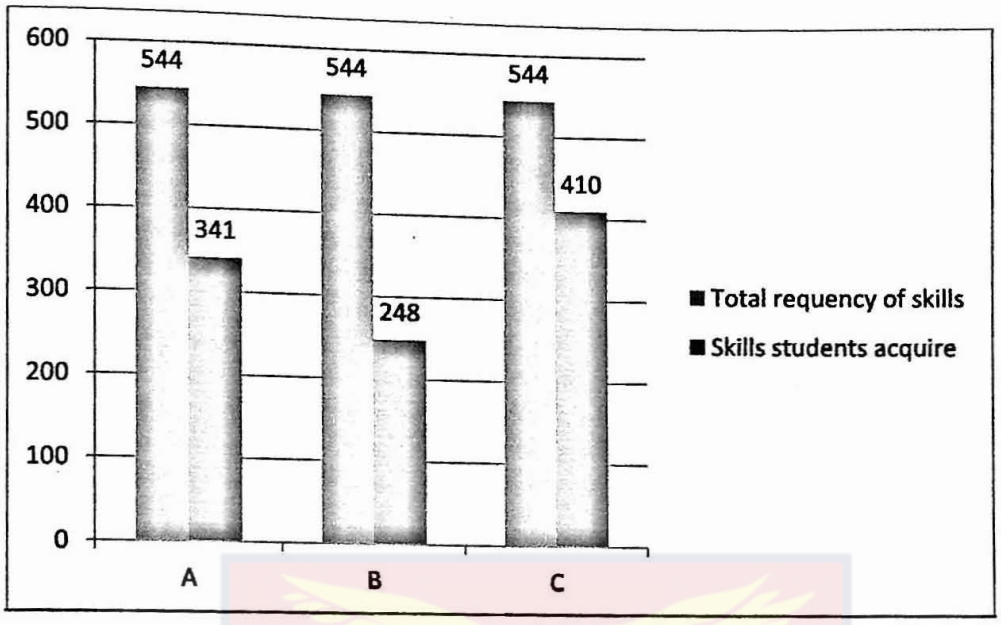

Figure 18. Skills Students Acquired in the Science Programme

The first ten skills in the order of magnitude that the students have acquired in the Science programme include: Student 'A': Skills of drawing (4.7), finding (4.1), ability (3.8) and the skills of identification (3.8). The remaining skills, thus, calculation, resolution, distinguishing, description, acquisition and application have equal value of 3.5. Student 'B': the skills of distinguishing (5.2), demonstration (4.4), drawing (4.0), recognition (4.0), awareness (4.0), solution (3.6), carrying out issues (3.2), writing (3.2), prediction (3.2) and identification (3.2). With student 'C,' the first eight skills have the same value of 3.4; these are calculation, distinguishing, ability, description, identification, understanding, relation and appreciation. The remaining two – differentiation and solution – have frequency value of 3.2.

Students' Acquisition of Skills in the Technical Drawing Programme

The Technical Drawing programme contains twenty three (23) skills. The total number of frequency in terms of students' familiarity with the skills was sixteen (16). This figure of sixteen is then multiplied by the total number

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

of skills to arrive at three hundred and sixty eight (368) skills representing hundred percent (100%).

The skills that student 'A' acquired for the three years were one hundred and thirty two (132) and this represents a percentage of 35.9. Student 'B' also acquired two hundred and seventy one (271) skills representing 73.6%. The third student, student 'C,' acquired one hundred and ninety seven (197) skills which represent 53.5%. It can be concluded that students 'B' and 'C' have acquired a lot of the skills embedded in the Technical Drawing programme. However, student 'A' acquired below 50% of the skills. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 20 below.

Table 20 - *Frequency of Skills Students Acquire in the Technical Drawing Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	368	132	35.9
B	368	271	73.6
C	368	197	53.5

(Source: Researcher's construct)

The figures in Table 20 suggest that two of the students have acquired most of the skills in the Technical Drawing programme. However, one of the students acquired the skills that are below average. The figures in the table above are presented visually in Figure 19 below.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

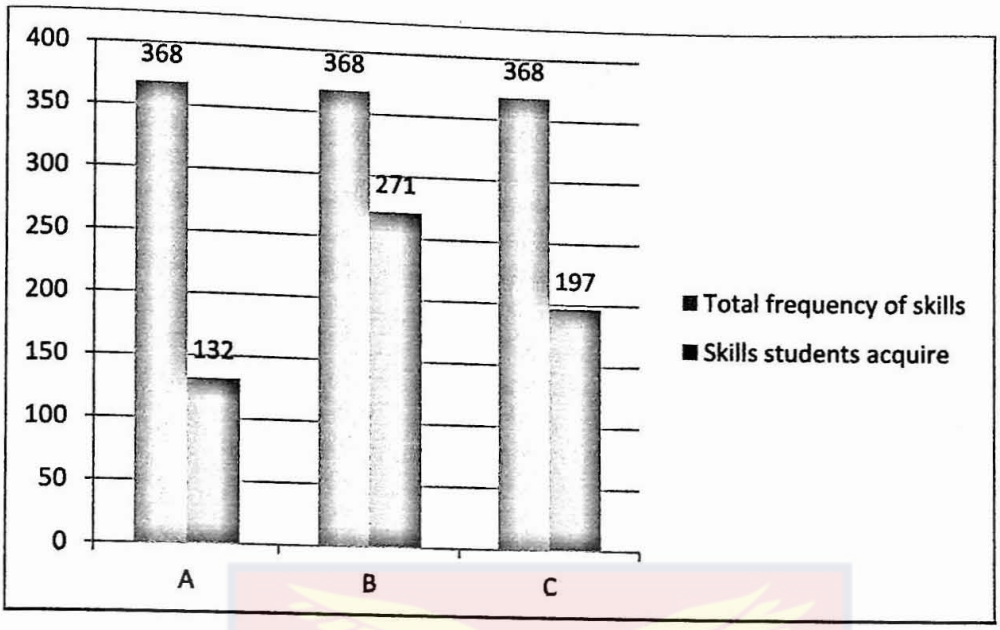

Figure 19. Students' acquisition of skills in the Technical Drawing programme

The first ten of the skills that the students have acquired in the Technical Drawing programme have been selected in order of magnitude. They are presented for the three students interviewed. Student 'A' has acquired the skills of representation (8.3), drawing (6.8) and the skills of differentiation (6.8). The next four skills, those of solution, listing, resolution and awareness, have the same value of 5.3 and the remaining three, the skills of writing, explanation and application, have the frequency values of 4.5. Student 'B,' on the other hand, has the skills of drawing, calculation, resolution, distinguishing and understanding with the same frequency value of 5.2. Three of the remaining five, application, relation and awareness, have a frequency value of 4.8. The following three skills, resolution, appreciation and awareness, have the same frequency value of 5.6. Again, the next three skills, namely, writing, explanation and determining, have the frequency value of 5.1 with the tenth skill, 'finding' with the rate of 4.6.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Students' Acquisition of Skills in the Business Programme

The total number of skills in the Business programme is eleven (11). This gives a total of one hundred and seventy six (176) frequencies of skills in the Business programme. This figure represents hundred percent (100%).

The first student, student 'A,' acquired a total of seventy (70) frequencies of skills and this represents a percentage of 39.8. Student 'B' also acquired one hundred and thirty (130) skills representing 73.9%. The third student, student 'C,' acquired ninety nine (99) skills which represent 56.3%. It can be concluded that students 'B' and 'C' have acquired a lot of the skills embedded in the Business programme. However, student 'A' acquired below 50% of the skills. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 21.

Table 21 - *Frequency of Skills Students Acquire in the Business Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	176	70	39.8
B	176	130	73.9
C	176	99	56.3

(Source: Researcher's construct)

The figures in Table 21 suggest that students 'B' and 'C' have acquired most of the skills in the Business programme. However, student 'A' has acquired the skills that are below average. The figures in the table above are presented visually in Figure 20 below.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

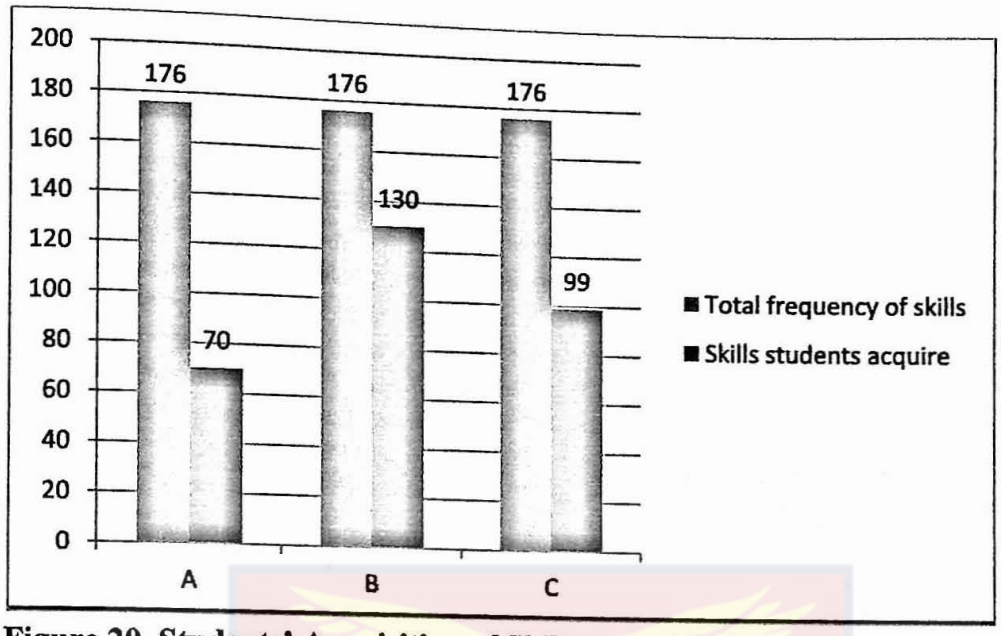

Figure 20. Students' Acquisition of Skills in the Business Programme

The total of the skills in the Business programme are eleven. Student 'A' has acquired, in a form of magnitude, the skills of acquisition (12.9), recognition and awareness (11.4), identification and appreciation (10.0), computing, knowing and understanding (6.8), development (7.1) and predisposition and ability (5.7). Student 'B,' on the other hand, acquired, in a hierarchical order, skills of knowing (12.3), understanding (11.5), development, identification and acquisition (10.0), computing (9.2), ability (8.5), predisposition, recognition, and appreciation (7.7) and finally, awareness (5.4). Student 'C' also acquired the following, in a magnitude form, skills of understanding (16.2), appreciation (13.1), recognition (11.1), knowing, acquisition and awareness (10.1), computing, ability and identification (8.1), development (5.1) and finally, predisposition (0.0).

Students' Acquisition of Skills in the General Arts Programme

The General Arts programme has twenty skills and this gives us a total frequency of three hundred and twenty skills and this represents 100%. Out of this number, Student 'A' acquired two hundred and nine skills (209)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

representing 65.31%. Student 'B' also acquired one hundred and eighty nine (189) and this gives a percentage value of 59.1. Student 'C,' on the other hand, acquired one hundred and eighty eight (188) skills with a percentage value of 58.8). These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 22.

Table 22 - *Frequency of Skills Students Acquire in the General Arts Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	320	209	65.3
B	320	189	59.1
C	320	188	58.8

(Source: Researcher's construct)

The figures in Table 22 suggest that all the students have acquired most of the skills in the General Arts programme as they all have acquired above 50% of the skills in the syllabus. The figures in Table 22 above are presented visually in Figure 21 below.

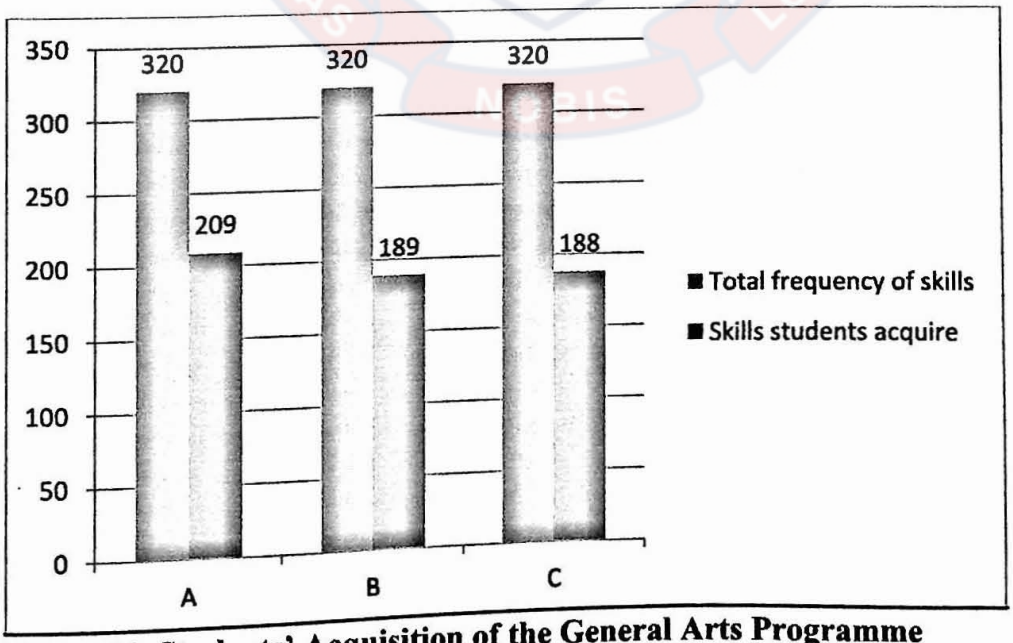

Figure 21. Students' Acquisition of the General Arts Programme

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The first ten skills of the General Arts programme acquired by each of the three students interviewed are as follows: Student 'A' acquired the skills of description (6.7), exposure and speech (6.2), questioning/answering, expression and ability (5.7), summary, restructuring, explanation and communication (5.3). Student 'B,' has three groups of skills, the first been only one, thus recognition (6.3), and the second group is made of two skills, restructuring and appreciation (5.8) while the remaining group contains the skills of exposure, questioning and answering, expression, summary, showing, description and identification (5.3). The first ten skills that Student 'C' acquired, in a hierarchical order, restructuring (6.9), summary and understanding (6.4), speech and appreciation (5.9), questioning and answering, locating and analysing, explanation, ability and showing (5.3).

Students' Acquisition of Skills in the Visual Arts Programme

The total number of skills identified in the Visual Arts programme was eleven. In terms of frequency for the four subjects, there was a total frequency of one hundred and seventy six (176) skills representing 100%. The first student interviewed, student 'A,' acquired ninety seven out of the total and this represents 55.1%. Student 'B' also acquired ninety two (92) out of the total and this represents 52.3%. Student 'C,' on the other hand, acquired one hundred and seven (107) skills with a percentage value of 60.8. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 23.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 23 - *Frequency of Skills Students Acquire in the Visual Arts Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	176	97	55.1
B	176	92	52.3
C	176	107	60.8

(Source: Researcher's construct)

The figures in Table 23 suggest that all the students have acquired most of the skills in the Visual Arts programme as they all have acquired above 50% of the skills in the syllabus. The figures in Table 23 above are presented visually in Figure 22.

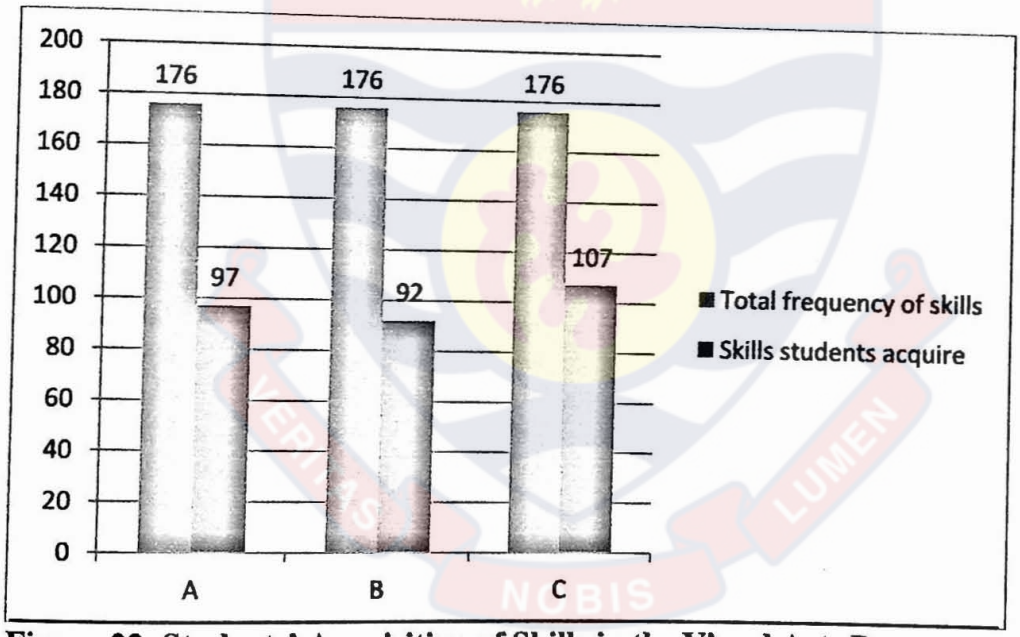

Figure 22. Students' Acquisition of Skills in the Visual Arts Programme

Since all the skills identified in the Visual Arts programme are eleven, all of them are arranged in an order of magnitude in reference to students' acquisition of such skills. Student 'A' acquired the skills of application (13.4), acquisition (12.4), understanding, recognition, appreciation, and awareness (10.3), identification (8.2), reflection (7.2), exposure and ability (6.2) and finally, development (5.2). Student 'B' has also acquired the skills of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

acquisition, application and appreciation (12.0), awareness (10.9), exposure, identification and understanding (8.7), development (7.6), and reflection, ability and recognition (6.5). Student 'C' also acquired, in a hierarchical order, understanding (12.1), acquisition (11.2), identification and recognition (10.3), application, appreciation and awareness (9.3), ability and development (8.4), exposure (6.5) and finally, reflection (4.7).

Students' Acquisition of Skills in the Home Economics Programme

There are as many as thirty four skills in the Home Economic programme. Taking each of the four programmes into consideration, there is a total of frequency of five hundred and forty four (544) skills which represent 100%. Three students were interviewed. The first student, Student 'A' acquired a total of three hundred and ninety (390) skills and this represents 71.7%. The second student, Student 'B,' also acquired four hundred and seventy two (472) skills representing 86.8%. Student 'C,' acquired four hundred and eight (408) skills and this gives a percentage value of 75. These frequencies and students' acquisition of the skills together with the percentage weight are illustrated in Table 24 below.

Table 24 - *Frequency of Skills Students Acquire in the Home Economic Programme*

Students	Total Frequency	Frequency of Students' acquisition of skills	Percentage
A	544	390	71.7
B	544	92	86.8
C	544	107	75.0

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The figures in Table 24 show the highest acquisition of skills so far as the percentage values demonstrate. The Table shows that all the three students were able to acquire above average hence most of the skills have been acquired. The figures in Table 24 above are presented visually in Figure 23.

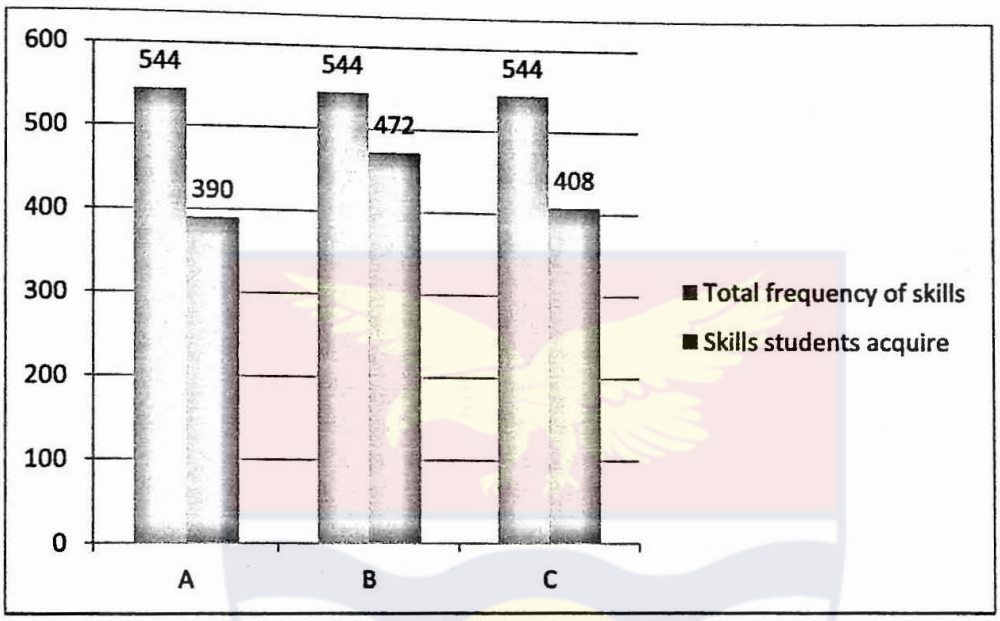

Figure 23. Students' Acquisition of Skills in the Home Economics Programme

An observation of the skills that students have acquired in the Home Economic programme shows a certain pattern. For example, in establishing the first ten skills, Student 'A' acquired a value of 4.1 for five of the skills and a value of 3.6 for the remaining five of the skills. The first five are judgement, restructuring, exploration, planning, and identification. The following five others are practice, conservation, examination, ability and acquisition. A similar pattern is seen with Student 'B.' The first skill, awareness contains a value of 3.4 and the next five skills have the same value of 3.2 and these are practice, judgement, ability, exploration and application. Those with a frequency value of 3.0 include the following: conservation, examination, exposure and locating and analysing.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Discussion of the Skills Students have Acquired

One of the major research questions the study sought to address was, "*What skills do the senior high school students acquire to enable them to secure employment or go into self-employment?*"

In all, there were twenty one (21) students who were interviewed and out of this number, eighteen (18) of them had acquired a frequency of skills above 50% of the skills contained thereof in the curriculum. Only three students in Science, Business and the Technical Drawing programmes acquired a frequency of skills below 50%. This picture of the total skills in the curriculum and the total frequency of students' acquisition of skills (based on the rank scale) are visually presented in Figure 24.

Table 25 - *Total Skills Students Acquired Against Total Skills in the Curriculum*

Programmes	Total frequency of skills in the curriculum	Total frequency of skills students acquire
Agriculture	1296	820
Science	1632	999
Technical Drawing	1104	600
Business	528	299
General Arts	960	586
Visual Arts	528	296
Home Economics	1632	1270
Total	**7680**	**4870**

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Another major concern that the study sought to look at was to compare the empirical data with the theoretical propositions 4 to 12 (Table 8). Yin (1994) is strongly in support of the use of theoretical propositions because their usage, according to him, provides a framework against which to compare and contrast the empirical data.

Theoretical Proposition 4

The first ten highest frequencies of skills in the curriculum are the same first ten highest frequencies of skills the students have acquired

In order to respond to the theoretical proposition 4, the first ten skills with the highest frequencies from each of the students interviewed were used. There were 21 interviewees, three each of the seven programmes. There were in all 210 skills from all the seven programmes. Out of the 210 skills, the first ten skills with the highest frequencies are presented in Table 26.

Table 26 - *The First Ten Skills with the Highest Frequency Students have Acquired*

Skills	Frequencies
Drawing	439
Understanding	143
Identification	135
Ability	131
Awareness	116
Recognition	110
Appreciation	108
Acquisition	93
Application	80
Description	73

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

From Table 26, one can deduce that the highest frequency of skill is drawing and the least of them is description. The skills in Table 26 together with their corresponding frequencies are presented in Figure 25.

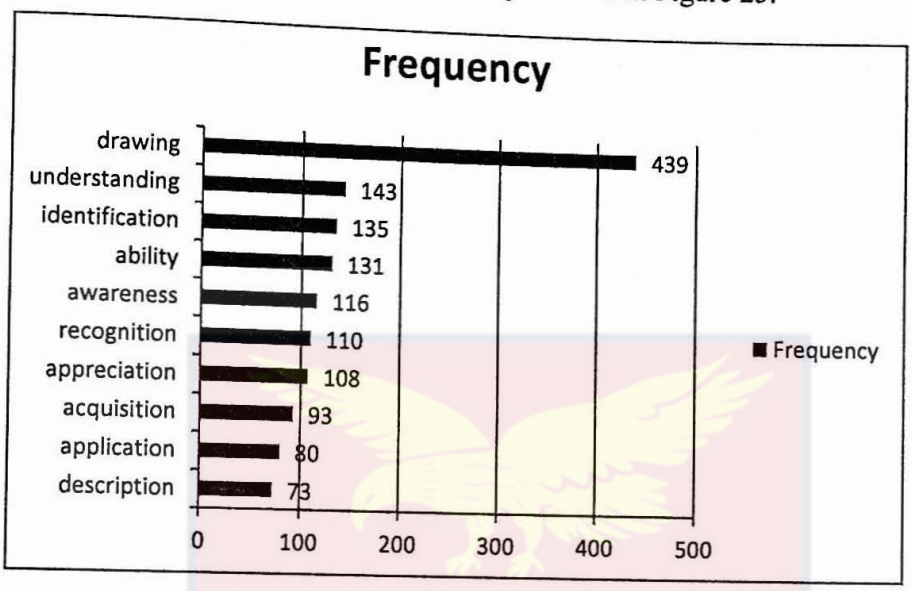

Figure 25. The First Ten Skills with the Highest Frequency Students have Acquired

The first ten skills with the highest frequencies that the students have acquired are compared with the first ten skills with the highest frequencies in the curriculum. The first ten skills with the highest frequency in the curriculum are presented here again in Figure 26 for comparison.

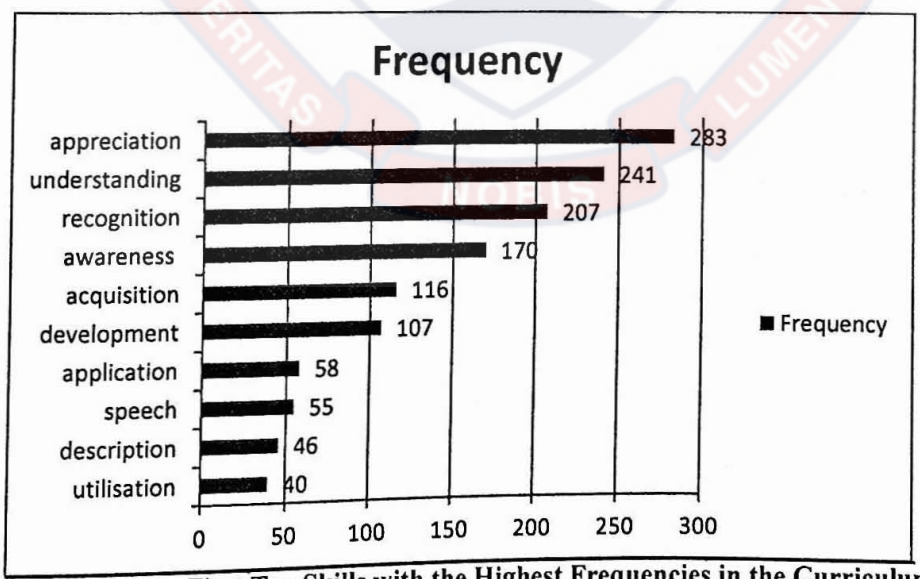

Figure 26. The First Ten Skills with the Highest Frequencies in the Curriculum.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

It was found out from the senior high school curriculum that the first ten skills with the highest frequencies fell under the affective domain, particularly the level of valuing. It was also realised that none of the skills with the highest frequencies fell under the psychomotor domain. The implication is that even the skills in the vocational oriented subjects do not have much emphasis. Also, the skills in the cognitive domain which focus on knowledge, comprehension, application, analysis, synthesis and evaluation do not have any major place in the curriculum.

The first ten skills with the highest frequencies that the students have acquired are not the same as the first ten skills with the highest frequencies in the curriculum. Six of the skills (understanding, recognition, awareness, acquisition, application and description) are the same. Three of them (ability, identification and drawing) can be found among the first ten skills with the highest frequencies that the students have acquired but they are not among those first ten skills with the highest frequencies in the curriculum. Also, there are three of the skills (development, speech and utilisation) among the skills in the curriculum but not among those the students have acquired. Psychomotor domain featured most in the skills that the students have acquired. The skills that constitute cognitive domain include identification (135), application (80) and description (73), giving a total frequency of 288. Those that constitute affective domain are understanding (143), ability (131), awareness (116), recognition (110), appreciation (108) acquisition (93) which together give a total frequency of 701. Even though the psychomotor domain with its skills of drawing featuring as the highest, it was the only skill with a frequency of 439. It can, therefore, be concluded that the skills with the highest frequencies that

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

the students acquired fell under the affective domain just as those of the curriculum.

Theoretical Propositions 5 and 6

Students acquire 'job training' skills. Students acquire 'job readiness' skills.

Anderson and Gantz (2013) distinguish between 'job training' and 'job readiness' skills. According to them 'job readiness' skills and competences that support a well-developed, civically competent students are the skills that will be widely in demand by employers in 2020. These are the skills that equip the student with the necessary skills for employment and self-employment. The 'job training' skills, on the other hand, deal with on-the-job training before one qualifies to be taken on.

The analysis of the senior high school curriculum revealed that the skills the students were supposed to learn were 'job readiness' skills. They are broad based skills; however, the emphasis is on non-application of knowledge because most of the skills with the highest frequencies fall under the affective domain. It can, therefore, be concluded that though the curriculum contains 'job readiness' skills, the students graduate with 'job training' skills because they have not adequately applied their knowledge to situational contexts.

Theoretical Proposition 7

Students acquire both theoretical and practical skills embedded in the curriculum.

The senior high school curriculum, through the various syllabi, more especially the practical ones such as Science, Agriculture, Technical Drawing, Home Economics, etc. recommend almost equal teaching of theory and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

practical periods. Table 27 below illustrates an example of this concept with the Agricultural programme:

Table 27 - *Teaching and Practical periods in the Agricultural Programme*

Subjects	No of periods	time/each	theory	practical
General Agriculture	6/week	40mns	3 periods	3 periods
Animal Husbandry	6/week	40mns	3 periods	3 periods
Chemistry	6/week	40mns	4 periods	2 periods
Physics	6/week	40mns	4 periods	2 periods

(Source: GE , 2010 . The syllabus for the Agricultural programme).

Table 27 reveals similarities among the subjects of the Agricultural programme in terms of the number of periods, time, theory and practical. Apart from Chemistry and Physics which have the periods for theory more than the practical, the rest are the same. The interview with students has, however, revealed that apart from Home Economics, theory supersedes that of practical work. This is how three students in the Agricultural programme responded to the following interview questions (*Interview Question 6*):

Interviewer: *Which one, the theory or the practical, supersedes the other?*

Interviewee 1:*The theory supersedes the practical.*

Interviewee 2: *Yes, the theory supersedes the practical.*

Interviewer: *But in the syllabus theory is supposed to have the same number of periods, e.g. three periods each. From what you have gone through, what percentage will you give to both theory and practical?*

Interviewee 1: *70% theory, 30% practical.*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Interviewee 3: *95% theory.*

Interviewee 2: *85% theory.*

Three Science students also gave similar responses without figures:

Interviewer: *In terms of theory and practical, do you think you have equal number of periods as suggested by the syllabus?*

Interviewees 4, 5, 6: *No*

Interviewer: *Which one supersedes the other?*

Interviewee 4: *Theory supersedes practical*

Interviewer: *But which one do you want?*

Interviewee 5: *We want equal balance*

Interviewees 4, 6: *Yes.*

The interaction with the students through the interview and considering what is clearly stated in the syllabus one can conclude that there is no match between what is in the syllabus and what is being performed through teacher-learner interaction. It is therefore established that students acquire more theoretical skills than practical skills.

Theoretical Propositions 8 and 9

8. Students acquire cross-functional skills.

9. Students acquire specific occupational skills.

Cross-functional skills, also known as soft skills, are skills for all types of jobs (Anderson & Gantz, 2013). They are the skills that can help one to get any job in any occupation. Occupation specific skills, according to Anderson and Gantz, are those skills that are specific to individual positions such as programming skills, skills for health care or professionals and skills required for trade such as electrician and plumber.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The content analysis of the senior high school curriculum has revealed both cross-functional and occupation specific skills. The interview conducted with employers confirmed that the skills in the curriculum are mostly required by employers. Anderson and Gantz (2013:2) reiterate that, "Those skills, widely considered as 'soft' skills are commonly reflected in nearly all occupations but will be in particular demand in jobs that are both high growth and well above the median in salary potential." Some of these soft skills, in terms of oral and written communication skills, are enshrined in the core courses such as the English Language, Mathematics, Integrated Science, Information and Communication Technology and Social Studies. When these skills combine with a more flexible occupation specific elective programmes, students' versatility is very high.

Theoretical Propositions 10, 11 and 12

10. Students acquire the skills of the world of work through direct involvement in the workplace.

11. Students acquire the skills of the world of work through visits to industry experts, employers, employees and self-employed to the school.

12. Students acquire the skills of the world of work through visits to private and public enterprises and community organisations.

These three theoretical propositions aim at one thing: bringing the industry into the classroom and taking the classroom to the industry (ACARA, 2013). The outcome of the interview with the students indicates that the recommendation in the curriculum to invite employers, employees, self-employed and experts in industries to the schools was really dysfunctional. Again, recommendations for students' visits to work places, industries, private

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

and public enterprises and community organisations were not being implemented. The following interaction with the students through an interview confirms this (*Interview 7, 8 and 9*).

Business programme:

Interviewer: *Now do you remember any time in your life since you started this programme to have had the opportunity to work under the supervision of an employer i.e. from Form One to this level, Form three?*

Interviewee 10: *No*

Interviewee 11: *No*

Interviewee 12: *Yes*

Interviewer: *If yes, describe the scenario.*

Interviewee 12: *Yes, my Auntie, she goes outside to buy goods. On vacation I work in her shop. Sometimes I go to the house and anytime I am there I work. She teaches me how to relate to customers; customer relation and how to relate to customers. I allow them to sit down*

Interviewer: *Ok. The next question will be this: Did you ever have experts from industries, or employers coming here to visit to give a talk or to talk on a topic?*

Interviewee 10: *Eh no. Eh, we ever had our past students who have held positions.*

Interviewer: *Ok, let's take for example a banker coming to talk about the skills involved in banking?*

Interviewees 10, 11, 12: *Oh, no.*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Interviewer: *So officially the school has not invited any expert to give a talk?*

Interviewees 10, 11, 12: *No*

Interviewer: *But have you also had the opportunity to go to the industries to know how they are working?*

Interviewees 10, 11, 12: *No.*

This procedure of interview to find out whether we "bring the industry into the classroom and take the classroom to the industry" went through all the seven programmes but the responses were negative. It can therefore be concluded that the recommendation in the curriculum of linking schools and industries, in effect, does not work.

Reflection on the Meaning of Students' Experience

Reflection on the meaning of students' experience is the third and final structure of Seidman's (2006) phenomenological interview methodology. It serves, Seidman posits, as an opportunity for the individual to put the experience into the proper personal context. This study sought to find out from the students whether those three years' experience in school would enable them to go into employment and self-employment. This therefore led to a major interview question.

Interview question 10: *What have your three years' experience taught you about employment opportunities after senior high school programme? Do you think after senior high school those students who will not be able to continue can get jobs to do or start their own jobs?*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Responses from Home Economics Students:

Interviewee 20: *Yes, it will be very difficult to get job to do and the job also they will get will not pay well because these days everything is IT, IT, so you have to continue so that you get a well-paid job.*

Interviewer: *Your explanation shows that your answer is No.*

Interviewee 20: *Yes, it is 'No' because they will find it difficult to get jobs.*

Interviewer: *Are you not also thinking about initiating your own job after SHS, or you think when you continue that is when you can initiate your own job?*

Interviewee 20: *You can initiate your job; you have to start with a little capital before it becomes a big capital.*

Interviewer: *Ok, that's good. What about you? Can you start with your own business?*

Interviewee 21: *Yes, I can start*

Interviewer: *If yes, do you see it cut across that anyone who completes SHS can enter into the world of work to work?*

Interviewee 21:*Yes, it is highly possible. It depends on the work the person is going to do. Students in the other programmes cannot do a work that is highly paid compared to Home Economics because this course will make you, eh the skills we have acquired will make you set up your own enterprise/restaurant and the proceeds you will be getting will be more than the others in the other programmes because ... but the best thing is to further your education and be stable so with that education they can go into many places.*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Interview with Science students

Interviewer: *Now that you have almost finished your programme, what have your three years' experience taught you about employment opportunities after senior high school programme? Not you per se but those who complete SHS but may not want to continue?*

Interviewee 4: *They will gain employment but the salary will be small.*

Interviewee 5: *I will teach.*

Interviewer: *When you complete SHS can you teach?*

Interviewee: 4, 5. 6: *Yes*

It was revealed from the interview that it is possible for every senior high school graduate to gain employment and/or initiate his or her own job. However, the sort of job will mostly not pay. The experience for the three years of the senior high school shows that if it becomes necessary that the graduating students can no longer continue their education, it is possible for them to get something doing though the remuneration would be minimal.

Research Question Three: What are the views of employers on the skills contained in the senior high school curriculum? In order to ascertain the views of employers about the relevance of the senior high school curriculum, the selected employers were asked to rate the skills in the curriculum. They were also asked to establish the similarities between the first ten skills with the highest frequency in the curriculum and those first ten skills with the highest frequency that employers have rated of the curriculum. In each of these two processes two personnel or companies for each of the seven programmes of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

the senior high school curriculum were interviewed. Fourteen personnel were therefore interviewed.

Employers' Rating of the Skills in the Curriculum

The researcher, through the content analysis, was able to identify the skills in the curriculum. In order to determine the relevance of such skills, the employers were asked to rate them. An interview schedule was used. In this interview schedule, a closed quantitative interview was adopted. In a closed quantitative interview, "questions and response categories are determined in advance. Responses are fixed; respondent chooses from among these fixed responses." (Patton, 1980: 206). A rating scale of skills not required [0], skills less required [1], skills required [2], skills mostly required [3] and skills highly required [4], at work places was used. Cohen, Manion and Morrison (2007) opine that the use of this technique along with open-ended questions is a comparatively recent development and means that scale scores can be checked against data elicited by the open-ended questions. The use of the rank scale was to help in responding to the theoretical proposition 13:

Theoretical proposition 13: Employers rate all the skills in the curriculum as relevant.

A transcription of the data from the interview was made and sorted out into themes or key headings or areas and coded, through the use of Nvivo 8. Through the use of 'Tree Nodes,' each category of the responses was coded. This was followed by the counting of frequencies of the occurrence of each skill. Patterns and themes were then noted together with the total frequencies of the skills. A simple numerical data for analysis was obtained and analysed in the form of tables as may be seen from Table 28.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 28 - *Employers' Views on the Relevance of the Skills in the Curriculum*

Programmes	Companies	No. of Skills	Overall Total Frequencies	Total freq.	% of employers
Agriculture	a) Fishing industry, Cape Coast	27	108	72	67
	b) Estate Farm, Valley View University	27	108	77	71
Science	a) Centre for Scientific Medical Research, Mampong,	34	136	122	90
	b) Science Department, Valley View University	34	136	80	59
Technical Draw	a) Agorwu Furniture, Accra	23	92	56	61
	b) Alizoo Entreprise, Accra	23	92	67	72
Business	a) Business Department, Valley View University	11	44	28	64
	b) Centre for Scientific Medical Research - Mampong	11	44	31	70
General Arts	a) Pentecost Press, Accra	20	80	58	73
	b) Physical Plant Department Valley View University	20	80	36	45
Visual Arts	a) Pentecost Press, Accra	11	44	31	70
	b) Pentecost Press, Accra	11	44	29	66
Home Economics	a) Catering Service, Valley View University	34	136	65	48
	b) Forest Hotel, Dodowa	34	136	67	49

(Source: Researcher's construct)

Table 28 reveals the frequency of skills that employers rate as required or otherwise at their work environment. The rating scale, as indicated above, was used and the analysis of the data revealed that there was none of the skills that was rated as 'Not Required.' All the skills in the curriculum were either less required, required, mostly required or highly required. Apart from three out of the fourteen organisations which rated the skills with a frequency of 36

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

(45%), 65 (48%) and 67 (49%) for General Arts, Visual Arts and Home Economics respectively, the remaining eleven organisations rated the skills beyond 50%. The higher the frequency, the higher the skills are required. For instance, one Doctor at the Centre for Scientific Research into Plant Medicine rated the skills in the Science programme as high as 122 (90%) out of 136 (100%). This is what the Doctor said when he was asked whether the skills in the curriculum might be required or considered for employment:

You see, anything science is high. Any, you see our scientific disciplines are varied and many so anything science is high. I said because we do different scientific disciplines – we have biological related, agricultural related, chemistry related – so all these science related skills, we rate them very high. To be frank with you even junior high school syllabus, the kind of things that is there, their science syllabus, the sort of skills or content that is there, if they take time to teach and understand it very well, they are very very valuable; you see but it's just a rush. The students pass through and come out as if they have not learnt anything. You see, but the kind of things that is with the junior high school science syllabus is a lot.

On the question of unemployment of senior high school graduates, the Doctor lamented bitterly as:

We need to put politics out of education and leave education for educationists and technocrats. You see, when we do that it will help a lot. It is the rush. It is the rush. It is rush and then also, you know a lot of people pass the senior high school examination and only a few get the opportunity to go to the university. A lot of people who go to the university, only a few of them get the courses they want to pursue and because of that the major emphasis of the senior high school programme is just to pass the exam in order to get the course you want to pursue at the university. If we have a lot of universities, especially public universities where we don't pay as much as the private ones so that students have a lot of options, there wouldn't be so much emphasis on getting certain grades in order to get certain course; that will relieve the pressure. You see, what is happening is that even if you make the senior high school four years and you introduce even more practical courses, the students will emphasise the theory because they are targeting certain courses at the university.

Some of the employers also rated the skills as 'less required.' According to them, it was not because of the irrelevance of the skills but because the skills seem to be above the students' level so they would not be

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

able to apply them. For example, an Accountant at the Centre for Scientific Research into Plant Medicine noted:

You see, they rush them through the course. For example, I know for those who do accounting, costing, it is almost like the A'level or O'level. Some of these skills may be less required because the skills seem to be beyond their capabilities. For example, "recognition of the social, ethical and legal responsibilities" is beyond their capabilities.The syllabus is detailed and the child cannot get the knitty gritty of all these so it is like chew, pour and forget. So, when they finish and come out they don't know practically anything as compared to those who were offering the O'level and A'level. But these senior high graduates when they come they are given every explanation yet they don't understand.

The Human Resources Manager at the Pentecost Press commented on the curriculum as follows:

Generally, the skills are very important because they can be applied at the work place. If only they have time to learn all these. But the students come out as if they have not learnt enough. These skills seem to be more detailed than the previous ones, for example, during our times. So in short I will say that the skills are okay, they are relevant.

Similar comments about the detailed nature of the curriculum were made by many of the employers. The major problem they observed was that the students are usually rushed through the curriculum; hence, they are not able to grasp those detailed skills embedded in the curriculum. It can therefore be concluded that the skills in the curriculum are relevant hence the senior high school curriculum is relevant. Thus, the employers rate the skills in the curriculum as relevant.

The second major aspect of employers' rating of the skills in the curriculum was to find out the similarities between the skills that have the highest frequencies in the curriculum and those that employers have rated as the highest. This led to the fourteenth theoretical proposition.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Theoretical Proposition 13 and 14

13: Employers rate the skills in the curriculum as relevant

14: The first ten highest frequencies of skills that employers rate of the skills in the curriculum are the same first ten highest frequencies of skills that emerge in the curriculum

The content analysis of the curriculum in order to determine the skills with the highest frequencies revealed the following skills in their order of value: skills of appreciation, understanding, recognition, awareness, acquisition, development, application, description, communication and utilisation (Refer to Figure 15 of page 124).

The employers who were interviewed also indicated the skills that they required 'less, most or high.' The first ten highest skills of each programme were rated and the following were the frequencies employers highly require and they are in their order of value: Skills of application, identification, appreciation, drawing, ability, acquisition, awareness, development, understanding and communication. These skills in the curriculum that employers rate as the highest and those with the highest frequencies in the curriculum are compared in Table 29.

Table 29 - *Comparing the Highest Skills in the Curriculum with those Employers Rate as the Highest*

First ten skills of highest frequency in the curriculum	First ten skills of highest frequency in the curriculum that employers require
appreciation	application
understanding	identification
recognition	appreciation
awareness	drawing
acquisition	ability

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 29 (Continued)

development	acquisition
application	awareness
description	development
communication	understanding
utilisation	communication

(Source: Researcher's construct)

It can be observed from Table 29 that three of the skills with the highest frequencies in the curriculum – skills of recognition, description and utilisation – cannot be found in the skills that the employers have rated as the highest. Again, three of the skills that the employers have rated as the highest – skills of identification, drawing and ability – cannot also be found in the skills that have the highest frequencies in the curriculum. The rest of the skills in Table 30 for both those skills in the curriculum and those that employers have rated as the highest can be identified.

One interesting revelation, however, is that the order of importance of the skills in the curriculum is not the same order of importance for employers. For instance, the skill with the highest frequency in the curriculum, the skill of appreciation, appears as the third highest in the rank order by employers. Again, the second skill with the highest frequency, the skill of understanding, appears as the ninth highest in the rank order; the rest are as follows: the skill of awareness at the fourth position appears at the seventh position; the skill of acquisition at the fifth position appears at the sixth position, etc. (Refer to Table 29).

Another revelation from Table 29 is that while the skills with the highest frequencies in the curriculum, especially the first four, - appreciation, understanding, recognition and awareness – are non-practical in nature, those

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

that the employers rate as the highest, especially the first two and the third one, - application, identification and drawing – are more of practical in nature. Taking into consideration the differences in the order of importance of the skills with the highest frequencies, those with non-practical direction and those with practical orientation, it can be concluded that, though the employers have rated all the skills in the curriculum as important, those skills in the curriculum in terms of the order of importance are not in the same order of importance as rated by the employers. In sum, the skills in the curriculum with the highest frequencies are not the same skills with the highest frequencies that employers require.

Research Question Four: What do human resource experts in industries perceive to be the ideal work related skills that graduates of the senior high school require to enable them to gain employment or go into self-employment? In response to this research question, the fourteen selected employers were interviewed to ascertain the skills that employers require of employees.

Skills Employers Demand of Employees

The researcher wanted to find out the skills that employers usually demand of employees. The study sought to find out if those skills that employers usually demand of employees could be found in the senior high school curriculum in order to determine the relevance or otherwise of the curriculum. In order to execute this, two organisations from both formal and informal sectors of the economy were selected for the interview. The selection of the organisations was based on the prospective related careers of each programme (Refer to Table 6) and it is purposive. As Paul, Kleinhamner and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Fowler (2009, p. 62) put it that, "purposive sampling logic is used in qualitative research so far as the object of study (a person, school, or school system) is a good example of the phenomenon being studied as it will provide relevant data." The organisations, as indicated in Table 30, provided relevant data for the study.

Table 30 - *Selection of Employers from Organisations*

Programmes	Organisation	Specific Organ.	Town/Region
Agriculture	a) Fishing industry	Live Fishing Activity	Central
	b) Valley View University	Estate Farm	Accra
Science	a) Herbal Medicine product	Cent for Sc Med	Eastern
	b) Valley View University	Depart of Science	Accra
Technical	a) Furniture making	Agorwu Furniture	Accra
	b) Building construction	Alizoo Enterprise	Accra
Business	a) Centre for Medicine	Finance	Eastern
	b) Valley View Univ.	Business Dept	Accra
General Arts	a) The Press	Pent. Press (HRD)	Accra
	b) Valley View University	Physical Plant Dept	Accra
Visual Arts	a) Graphic design	Pent. Press (design)	Accra
	b) Fashion design	Pentecost Press	Accra
Home Econs	a) Catering	Valley View. Univ.	Accra
	b) Restaurants	Forest Hotel	Dodowa

(Source: Researcher's construct)

Data were gathered from the above informants. The data were then transcribed, sorted out to determine themes and coded through the use of Nvivo 8. The counting of the frequency of occurrence of skills, identifying

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

patterns and themes together with the total number of frequency of skills followed. The skills that were identified in the form of words, phrases and sentences constituted the units of analysis.

During the open coding of the skills into categories three major key themes were identified together with their sub-themes and these were based on Bloom's (1956) cognitive domain, Krathwohl, Bloom and Masia's (1964) affective domain and Harrow's (1972) psychomotor domain. These themes, together with their sub-themes, include: Cognitive [knowledge, comprehension, application, analysis, synthesis and evaluation], Affective [receiving, responding, valuing, organisation and characterisation], and Psychomotor [reflexive movement, fundamental movement, perceptual abilities, physical abilities, expressive movement and non-discrimination].

'Tree nodes' were used to represent the sub-themes of the various skills in the coding and this helped in the counting of the frequency of each code or skill. A simple numerical or statistical analysis using Microsoft Office Excel was used to determine the total number of frequencies. In all, there were one hundred and eighty two (182) skills: Agriculture (31), Science (33), Technical Drawing (21), Business (24), General Arts (29), Visual Arts (18) and Home Economics (26). The first ten highest of the skills are visually represented in Figure 27.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 31- *Skills Employers Demand of Employees*

Skills	Interview of employers in respective programmes							
	Agric	Sci	Tech.	Busi.	G. Arts	V. Arts	H. Econs	**Total**
Cognitive								
Knowledge	03	01	02	02	00	02	03	13
Comprehen.	06	06	03	03	04	02	07	31
Application	06	03	02	04	11	02	04	32
Analysis	02	01	00	00	04	00	01	08
Synthesis	01	04	04	04	01	00	03	17
Evaluation	02	00	02	03	00	00	00	07
Affective								
Receiving	00	01	00	00	00	00	00	01
Responding	01	02	02	01	02	00	01	09
Valuing	02	06	00	01	01	05	02	17
Organisation	00	01	00	00	00	00	02	03
Characterisat.	07	07	05	03	04	05	02	33
Psychomotor								
Reflexive	00	00	00	00	00	00	00	00
Fundamental	00	00	00	00	00	00	00	00
Percept, ability	00	00	00	00	00	00	00	00
Physic. abilities	01	01	00	00	00	00	01	03
Skilled mov't	00	00	01	03	02	02	00	08
Expressi. mov't	00	00	00	00	00	00	00	00
Non-discriminat	00	00	00	00	00	00	00	00
Total	**31**	**33**	**21**	**24**	**29**	**18**	**26**	**182**

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The total number of skills that the employers who were interviewed posited to be mostly required at work places was one hundred and eighty two (182). Each programme has its own number of frequencies as indicated in the above table. In order to make a clear comparison among these skills, a visual representation of the frequencies is represented in Figure 28.

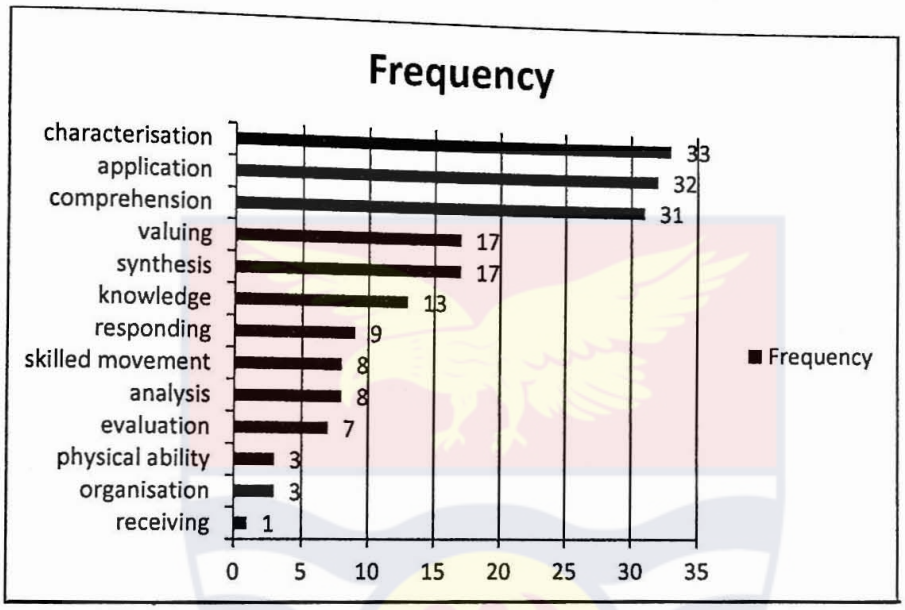

Figure 28. Frequency of Skills Employers Demand of Employees

The skills in Figure 28 are the highly required ones at the work place. Five of them constitute the skills of the Affective domain: Characterisation, valuing, responding, organisation and receiving. Six of the skills are subsumed under cognitive domain: application, comprehension, synthesis, knowledge, analysis and evaluation, in their order of value. The rest of the skills fall under psychomotor domain: skilled and physical movements. In all, the affective domain contains a frequency of 63 while the cognitive domain comprises a frequency of 108 with the psychomotor domain consisting of a frequency of eleven (11). It can therefore be concluded that employers demand more of the skills that relate to cognitive domain. In other words, employers require more of the skills that relate to the application of knowledge.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Discussion of the Skills Employers Demand of Employees

In the analysis of the skills that employers require of employees, it was revealed that the affective domain contained a frequency of 63 while the cognitive domain comprised a frequency of 108 and the psychomotor domain consisted of a frequency of eleven (11). The skills of the cognitive domain are more than those of the affective and psychomotor domain. Since the skills of the cognitive domain deal more with the application of knowledge, it can be concluded that employers demand more of the skills that relate to the application of knowledge.

A comparison was also made between what employers see as the appropriate skills and those skills embedded in the curriculum. This attempt of comparing these skills leads to a deliberation on the theoretical propositions 15 and 16.

Theoretical Proposition 15

The skills in the curriculum are the same skills that employers demand of employees for employment.

Two major approaches were made in an attempt to respond to the theoretical propositions; first, a content analysis of the senior high school curriculum was done in order to identify the skills that the curriculum contains. Secondly, a selected group of employers in fourteen organisations was interviewed in order to identify the skills they require of employees.

The content analysis of the curriculum revealed a lot of skills but the first eleven skills with the highest frequencies included appreciation, understanding, recognition, awareness, acquisition and ability (affective domain) (1,017 frequencies) and development, application, speech, description

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

and utilisation (cognitive domain) (306 frequencies). These skills are visually represented in Figure 29.

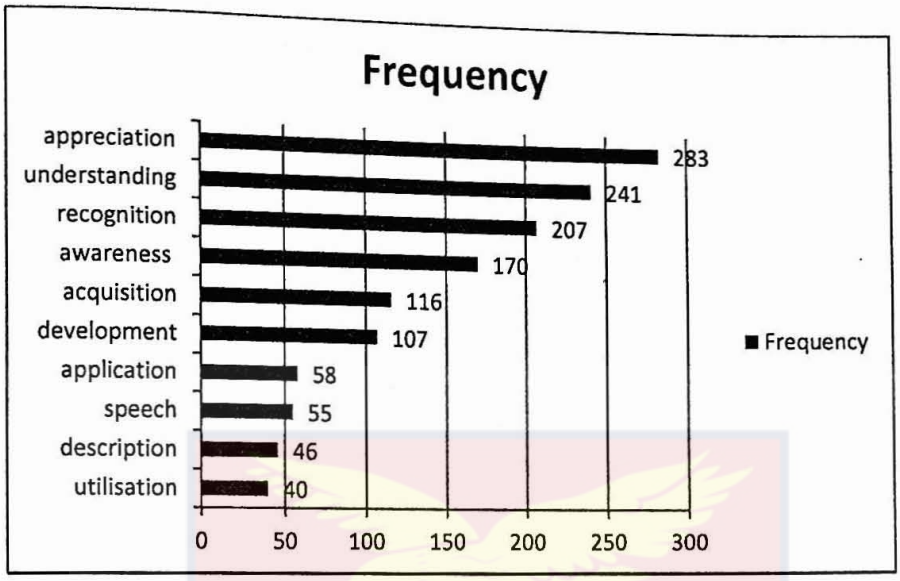

Figure 29. The Highest Frequencies of Skills in the Curriculum for Comparison

Figure 29 shows that the senior high school curriculum lays emphasis on the skills of appreciation, understanding, recognition, awareness, etc. which constitute the skills of the affective domain. It can be stated categorically that the curriculum emphasises skills of the affective domain since the first five highest skills fall under the affective domain and in all, 1,017 frequencies of affective domain as against 306 frequencies of the cognitive domain.

The skills in the curriculum, as illustrated in Figure 29 above, were being compared with those that the employers considered as mostly required at the work place, Figure 30.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

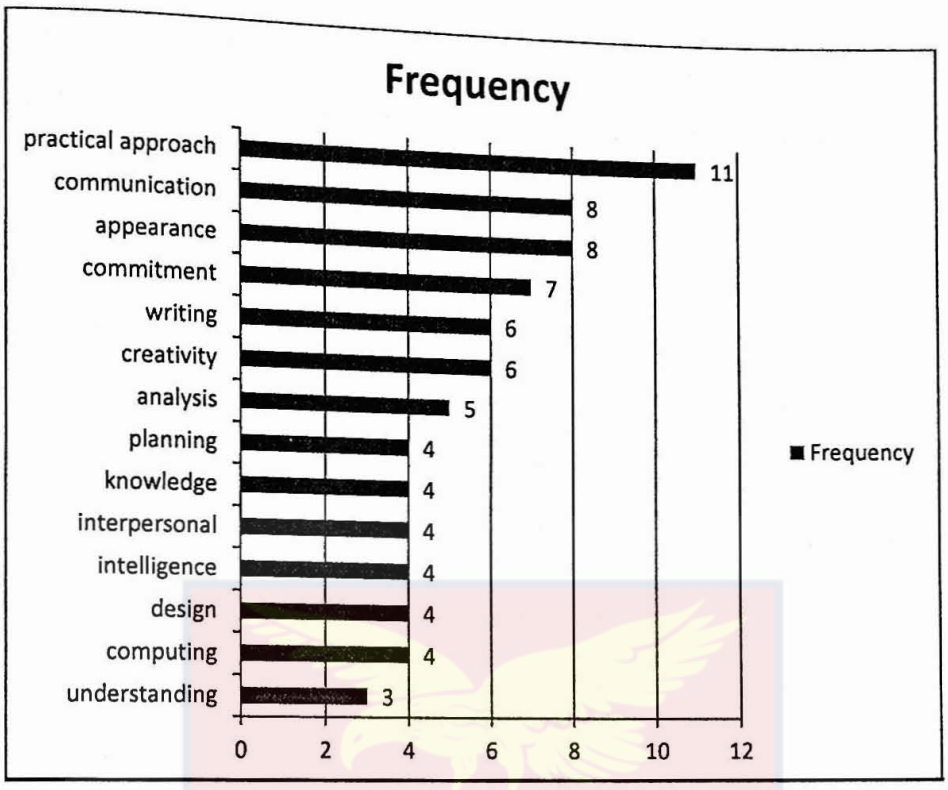

Figure 30. Skills Employers Demand of Employees for Comparison

Eight of the skills in Figure 30 are basically cognitive in nature. These are practical approach, creativity, planning and computing (application of knowledge), communication (comprehensive), analysis (analysis) and knowledge and intelligence (knowledge). Commitment, interpersonal relations and understanding are affective in nature. The rest – writing and design – are psychomotor skills, and specifically skilled abilities.

It can be deduced from Figures 29 and 30 that while the senior high school curriculum recommends skills of the affective domain, mostly skills relating to valuing, employers require cognitive skills and mostly skills of application of knowledge. Some of the skills that employers recommend cannot be found in the senior high school curriculum. For example, the skills of practical approach and creativity, both of which constitute skills of application, cannot be found in the senior high school curriculum. It can be

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

concluded that the skills in the curriculum are not the same skills that employers require of graduating senior high school students, even though the skills in the curriculum have been rated as relevant.

Theoretical Proposition 16

The first ten highest skills that employers demand of employees are the same first ten highest frequencies of skills in the curriculum

The comparison between the kills in the curriculum and those that employers require of employees was made with regard to Bloom's (1962) taxonomy, Krawthwohl, Bloom and Masia's (1964) taxonomy and Harrow's (1972) taxonomy. These taxonomies are cognitive, affective and psychomotor domains respectively.

The first data used for the comparison are those employers demand of employees as may be seen from Figure 31 below. In the figure, six of the first ten highest frequencies of skills fall under cognitive domain. These include application, comprehension, synthesis, knowledge, analysis and evaluation. Characterisation, valuing and responding skills constitute affective domain. The rest of the first ten skills is skilled movement which is basically psychomotor skill. Even though characterisation (affective) has the highest of all, when all the skills in the cognitive domain (108) are put together, they outweigh those of the skills in the affective domain (64) and the psychomotor domain (8). It can therefore be concluded that employers demand most of the skills in the cognitive domain. These skills under each domain may be seen from Figure 31.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

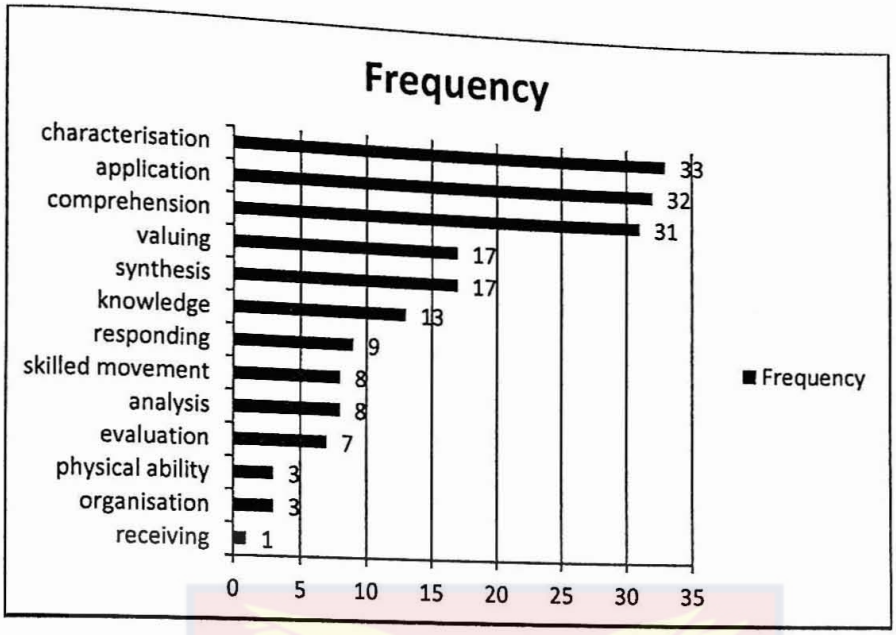

Figure 31. Skills Employers Require Most

The second data used in the comparison were the skills deduced from the curriculum through content analysis and the comparison was also based on the cognitive, affective and psychomotor skills. Out of the first eleven highest frequencies of the skills, three of them – valuing (715), characterisation (257) and responding (8) – fall under the affective domain with a total frequency of 980. Six of the skills – comprehension (198), application (182), evaluation (35), analysis (16), synthesis (12) and knowledge (11) – also fall under cognitive domain and that gives a total frequency of 451. The rest of the skills – skilled movement (7) and physical ability (3) – are skills of psychomotor domain and this gives a total frequency of 10. It can therefore be concluded that while the major focus of skills in the curriculum is on those of valuing and characterisation in the affective domain, employers demand skills of application which are in the cognitive domain. The frequency of skills in the curriculum is visually presented in Figure 32.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

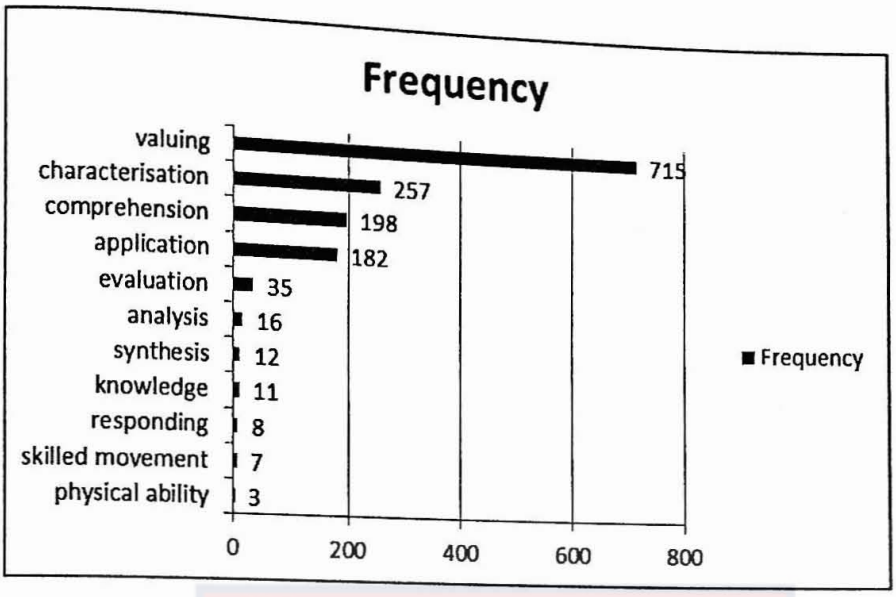

Figure 32. Skills in the Curriculum in Terms of Cognitive, Affective and Psychomotor Domains

It can be deduced from Figures 31 and 32 that the senior high school curriculum lays emphasis on the skills of valuing and characterisation while employers require skills of application. It can therefore be concluded that the first ten highest skills in the curriculum are not the same first ten skills with the highest frequencies that employers demand of employees.

One surprising revelation in the comparison is that the first ten highest skills in the curriculum are the same first ten highest skills that employers require though the order of value varies. This order of value could be viewed from Table 32.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Table 32 - *Skills in the Curriculum Compared with the Skills Employers Require*

The first ten highest Skills in the curriculum	The first ten highest skills employers require
valuing	characterisation
characterisation	application
comprehension	comprehension
application	valuing
evaluation	synthesis
analysis	knowledge
synthesis	responding
knowledge	skilled movement
responding	analysis
skilled movement	evaluation

(Source: Researcher's construct)

It can be deduced from Table 32 that the first ten skills with the highest frequency in the curriculum can be found in those that employers demand of employees. However, the order of value in terms of frequency is not the same. The order of the frequencies is very important because it shows the level of each skill. It can therefore be concluded that, in terms of order of value, the first ten skills with the highest frequencies in the curriculum are not the same as those that employers demand of employees.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Skills Students have Acquired and those Employers Demand of Employees

Another area of considering the relevance of senior high school curriculum was to make a comparison between the skills the students have acquired and those that employers demand of employees. This process led to the theoretical proposition seventeen.

Theoretical proposition 17

The skills that students acquire from the curriculum are among the skills that employers demand of employees.

All the skills that the students admitted to have acquired from all the seven programmes during the interview were put together. In all, 57 of the skills were being acquired by the students. The frequencies of the skills were identified. These skills were tabulated against the 88 skills that employers said they required from employees. Out of these skills, the first ten with the highest frequencies were selected and compared. This is presented in Table 33.

Table 33 - *Comparison of Skills Students Acquire and those Employers Want*

The first ten highest skills from the Curriculum that students have acquired	The first ten highest skills employers demand of employees
understanding	practical approach
recognition	communication
appreciation	appearance
awareness	commitment
acquisition	writing
identification	creativity
ability	analysis
development	planning
application	knowledge
description	interpersonal

(Source: Researcher's construct)

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

It can be revealed from Table 33 that the skills that the students have acquired are quite different from the skills that employers demand of employees. None of the skills that the students have acquired is similar to those that employers demand of employees.

Theoretical proposition 18

The first ten highest skills that the students have acquired are the same first ten highest skills employers demand of Students

The analysis of both the data for students and employers revealed a vast difference in both the skills that the students have acquired and those that employers usually demand of employees. The first twelve skills with the highest frequencies as illustrated in Table 33 above are visually represented in Figures 33 and 34 below.

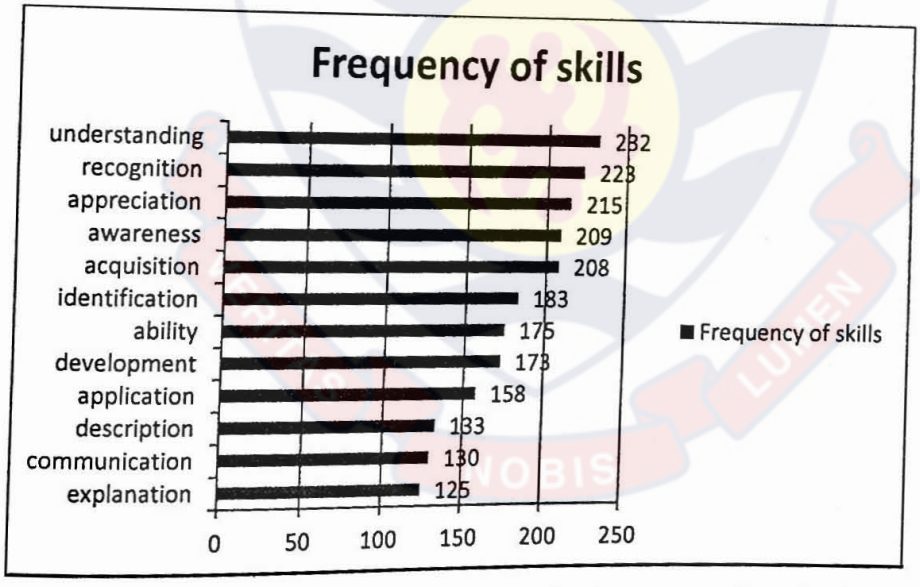

Figure 33. The First Twelve Highest Skills Students have Acquired

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

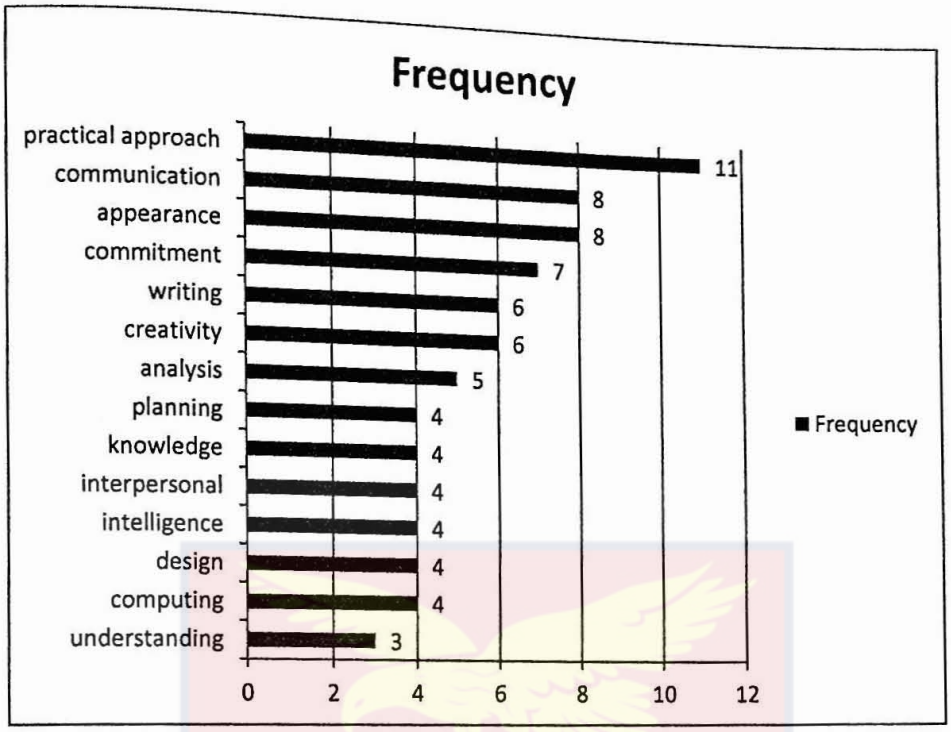

Figure 34. The First fourteen highest skills employers demand of employees

It can be revealed from both Figures 33 and 34 that the first ten skills with the highest frequencies are quite different. What the employers highly recommend are not the same as those the students have acquired. None of the first ten skills with the highest frequencies can be located among the first ten skills with the highest frequencies on the side of the employers.

One interesting revelation about those skills is that the employers have so far rated all the skills in the curriculum as relevant so the skills that the students have acquired are not out of context. However, the emphasis, in terms of teaching and learning in both what the senior high school curriculum contains and what the employers recommend are different from what the students have acquired. For instance, the fourteenth highest (or the ninth highest because of those skills with the same frequencies) that the employers require is the skill of understanding. This skill of understanding is the first highest of all the skills that the students have acquired.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Overview

This final chapter presents the summary of the study, the conclusions drawn from it and the recommendations for consideration, application and implementation.

Summary

The summary of the study encompasses two major parts namely an overview of the study and the key findings. The overview of the study touches on the purpose of the study, the rationale behind the study, the research questions and the theoretical propositions that guided the study, and the methodology used in terms of instruments. The key findings also give a summary of the major findings of the study.

An Overview of the Study.

The study was carried out with the purpose of finding out the relevance of the senior high school curriculum in relation to the contextual reality of the world of work. The study was informed by the problems of unemployment against the premises that all the subjects of the senior high school programme have been designed to offer enough knowledge and skills to students terminating their education at the end of senior high school to gain employment or go into self-employment (Ghana Education Service (GES), 2010). The senior high school system is "organised both as terminal education for entry into the world of work and as a preparatory stage for entry into tertiary education." (Ministry of Education, Youth and Sports, 2004, p. 21).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Research, however, shows that only about 10% of school children passing through junior high school to senior high school gain admission to the universities with the remaining 90% "erroneously referred to as dropouts." (Ministry of Education, 2002, p. 148). What then happens to those who are considered as "dropouts?" Is it because the skills that they have acquired in school are not work related? What skills are then embedded in the school curriculum such that the graduating students of the curriculum can gain employment or go into self-employment?

These series of questions warranted the search into the relevance of the senior high school curriculum in relation to contextual reality of the world of work. In order to embark on this research, four major research questions were formulated to guide the study: (a) What skills does the curriculum contain that could be imparted to the students to enable them to gain employment or to go into self-employment? (b) What skills do the senior high school students acquire to enable them to secure employment or go into self-employment? (c) What are the views of employers on the skills contained in the senior high school curriculum? (d) What do employers perceive to be the ideal work related skills that graduates of the senior high school require to enable them to gain employment or go into self-employment?

These research questions were buttressed by eighteen (18) theoretical propositions, as Yin (1994) strongly supported and practically used them (Paul, Kleinhamer & Fowler, 2009). The theoretical propositions were grouped under the skills embedded in the curriculum, the skills students acquire, skills employers require of employees, similarities between the skills in the curriculum and the skills that employers demand of employees and

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

finally, similarities between the skills students acquire and the skills employers demand of employees.

In order to address the four major research questions and the theoretical propositions, three main approaches were adopted. The first was the content analysis of the senior high school curriculum. The second was an interview of some selected students and the third was an interview of some selected employers in some organisations.

In the content analysis of the senior high school curriculum, the whole curriculum was identified as the population with the seven programmes constituting the sample size. The units of analysis identified were the words, phrases or sentences which constituted the skills in the curriculum. An open coding of the skills into categories, through the use of Nvivo 8, in order to identify the main themes and sub-themes, was made. Also, through the use of 'Tree Nodes' the individual skills were identified. The identification of the skills led to the counting of frequency of appearance of each skill. Having arrived at the total number of frequency of each skill, a simple numerical or statistical analysis with Microsoft Office Excel was used in order to generate visual representation in the form of graphs and figures.

A critical case selection procedure was used in selecting a single school that fulfilled all the requirements of the Ghana Education Service (Ministry of Education) in order to be considered as an excellent school (Flyvbjerg, 2004). A sample size of twenty one (21) students, three each for the seven programmes, was selected from the school for an interview. This served as a model example of "most likely" case that could test the universality of the research thesis that: *If those selected sampling frames that*

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

appear to have all that they need to demonstrate the relevance of the senior high school curriculum in relation to the contextual reality of the world of work turn round to show irrelevance of the curriculum, then it is "most likely" that it will be irrelevant anywhere in the country.

The interview of students followed the interview structure of Seidman's (1998) methodology. In this methodology, the focused life history of the informants, the details of their experiences and the reflection on the meaning of their life history and experiences were captured.

The third major element after the content analysis and the interview of students was an interview of employers from various organisations. Fourteen employers were interviewed with the purpose of identifying the skills that employers usually demand of employees. These skills were to be used to cross check the skills in the curriculum and those that the students have acquired.

An interview schedule was used to gather the information and specifically, a closed quantitative interview was adopted. As Patton (1980, p. 206) puts it, in a closed quantitative interview, "questions and response categories are determined in advance. Responses are fixed; respondent chooses from among these fixed responses." A rating scale was therefore developed from the lowest [0] to the highest [4] as skills not required; skills less required; skills required; skills mostly required and skills highly required respectively.

In addition to the closed quantitative interview, the employers were also interviewed on the skills that they required at their work places if they were to employ individuals to work. The data from the interview were transcribed, sorted out to identify the themes and coded. Through the use of

Digitized by Sam Jonah Library

SAM JONAH LIBRARY

University of Cape Coast https://ir.ucc.edu.gh/xmlui

the 'Tree Nodes,' each category of the responses was coded. The frequency of the appearance of the skills was counted and through a simple numerical analysis using Microsoft Office Excel, tables and figures were generated. The key findings of the study were then presented.

Key Findings

The key findings of the research were in response to the four major research questions and the theoretical propositions. The first major research question was to find out the skills that the curriculum contained and which were to be imparted to the senior high school students to enable them to gain employment or go into self-employment. The second was on the skills that the senior high school students had acquired to enable then to secure employment or go into self-employment. The third research question was on the views of employers on the skills contained in the senior high school curriculum. The final research question was on the skills that employers usually consider as the ideal work related skills. The key findings are outlined below.

The Skills in the Senior High School Curriculum

Through the content analysis of the senior high school curriculum, it was found out that there were 56 skills in the core subjects [English Language, Mathematics, Integrated Science, Social Studies and Information and Communications Technology] with a total frequency of 178. All the seven programmes contained 62 skills with a total frequency of one thousand, four hundred and forty-one (1444). In all therefore, there were one hundred and fifteen (118) skills in the senior high school curriculum and this figure

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

represented a total frequency of one thousand six hundred and nineteen (1,622).

Emphasis on the Skills of Attitudes and Values in the Curriculum

The study revealed that the skills in the curriculum did not lay much emphasis on the application of knowledge, as most of the skills with the highest frequencies were within the affective domain as against the cognitive and psychomotor domains. The cognitive domain was concerned with the skills of application while the affective domain was concerned with valuing system. The psychomotor domain, on the other hand, dealt with skilled and physical activities.

The skills in the curriculum needed to provide well-rounded, civically competent students as suggested by Anderson and Gantz (2013) in their research findings. According to them there was the need to impart the skills that would be required for jobs now and in the future.

Students' Acquisition of Skills of the Affective Domain

The study also found out that out of a total frequency of seven thousand six hundred and eight (7,680) skills, based on the rank scale used, the students who were interviewed had acquired four thousand eight hundred and seventy (4,870) skills and this represented 63.4%. The students had therefore acquired quite above average of the skills contained in the curriculum. Another revelation was that most of the skills with the highest frequencies that the students had acquired fell under the affective domain just as those in the curriculum.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Order of Value of Skills in the Curriculum and those Students Acquired

The findings revealed that, even though the skills with the highest frequencies of both the curriculum and those that the students had acquired fell under the affective domain, the order of value in terms of frequencies varied. For example, while three of the first ten skills with the highest frequencies could be found among the first ten skills that the students had acquired, they could not be found among those first ten skills with the highest frequencies in the curriculum. In addition, three of the skills among the first ten in the curriculum could not be found among the first ten skills with the highest frequencies that the students had acquired.

Graduation of Students with 'Job Training' Skills

The findings also showed that the curriculum contained 'job readiness' skills because the skills in the curriculum were broad-based. It was, however, revealed that though the curriculum contained 'job readiness' skills, the students usually graduated with 'job training' skills because they had not adequately applied their knowledge to situational contexts. Again, the students were usually rushed through the curriculum so after their graduation they seemed not to have learnt anything.

Acquisition of Theoretical Skills as Against Practical Skills

One of the research findings was that the students had acquired more theoretical skills than practical skills. This is in congruence with IMANI Ghana's (2013) findings that many stakeholders are not happy with the curriculum because it is still bookish and grammar type, though it is diversified. Again, GES (2002) found that the curriculum comprises a practical element but this practical element recommended in the curriculum is

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

not implemented due to lack of adequate teaching and learning facilities, poor infrastructural facilities, low number of well-motivated and committed teachers, poor management and supervision and inadequately prepared junior high school leavers.

Those practical oriented programmes such as Agriculture, Science, Home Economics, Technical Drawing, etc. were supposed to have a balance of both theory and practical as stated in the curriculum but theory superseded the practical. The three students interviewed rated, for example, the Agricultural programme as 70%, 85% and 95% against 30%, 25% and 15% for both theory and practical, respectively.

Relevance of the Skills in the Curriculum

The employers rated the skills in the curriculum and it was revealed that all the skills contained in the curriculum were required at the work place though with different degree of requirements. The broad-based nature of the skills and the employers' acceptance of the skills in the curriculum showed that the skills in the curriculum were more of cross-functional skills than occupation specific skills even though both cross-functional and occupation specific skills were contained in the curriculum. Apart from three organisations (out of the fourteen organisations) that rated the skills in the curriculum with a frequency of 36 (45%), 65 (48%) and 67 (49%) for General Arts, Visual Arts and Home Economics respectively, the remaining eleven organisations rated the skills in the curriculum beyond 50%. This showed that the skills in the curriculum were relevant hence the senior high school curriculum was relevant.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Lack of Connectivity between Schools and Industries

The study findings further revealed that the recommendations in the curriculum to invite employers, employees, self-employed and experts in industries to the schools as a way of bringing in skills into the classroom were dysfunctional. Again, the recommendations for students' visits to work places, industries, private and public enterprises and community organisations were not being implemented. These findings were contrary to ACARA's (2013) suggestions of bringing the industry into the classroom and taking the classroom into the industry.

Mismatch between Curriculum skills and Employers' Rating of Skills

Another revelation was that though the employers had rated all the skills in the curriculum as important, those skills in the curriculum with the highest frequencies in terms of the order of importance were not in the same order of importance as rated by the employers. In short, the skills in the curriculum with the highest frequencies were not the same skills with the highest frequencies that employers required.

Mismatch of Skills between Affective and Cognitive Domains

It was noted that while the senior high school curriculum recommended skills of the affective domain, mostly skills relating to valuing, employers required cognitive skills, mostly skills of the application of knowledge. Some of the skills that employers recommended could not be found in the senior high school curriculum. For example, the skills of practical approach and creativity, both of which constitute skills of application, could not be found in the senior high school curriculum. It was, therefore, revealed that the skills in the curriculum were not the same skills that employers

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

required of graduating senior high school students even though the skills in the curriculum had been rated as relevant.

Mismatch between Percentage Weight of Skills and Curriculum Skills.

The skills in the curriculum demonstrated a higher percentage weight of cognitive skills as against those of the affective and psychomotor domains. The frequency of skills in the curriculum, however, showed that the skills with the highest recurrences fell under the affective domain. These finding were contradictory because it was expected that the percentage weight value could coincide with the frequency of skills in the curriculum.

It was further found out that the first ten skills with the highest frequencies in the curriculum were not the same as the first ten skills with the highest frequencies that employers required of employees. While the curriculum emphasised the skills of the affective domain, particularly those of valuing and characterisation, employers laid emphasis on the skills of the application of knowledge.

Mismatch between Skills Requirements of Students and Employers.

With regard to the skills that students had acquired in the curriculum being among the skills that employers demanded of employees, it was found out that the skills that the students had acquired were quite different from the skills that employers demanded of employees. None of the first ten skills with the highest frequencies that the students had acquired could be located among the first ten skills with the highest frequencies that employers demanded of employees. It was, however, noteworthy that the employers had already rated all the skills in the curriculum as relevant so what the students had learnt were not out of context. However, the emphasis, in terms of teaching and learning,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

in both what the senior high school curriculum and the employers recommended were different from what the students had acquired.

Conclusions

A major conclusion drawn from the study was that the senior high school curriculum was relevant because the skills contained thereof were required at the work place. In all, the curriculum contained 118 skills with a total frequency of 1,622. This research finding provided a response to the Research Question One that required the establishment of the number of skills contained in the curriculum. However, most of the skills with the highest frequencies in the curriculum were more of the affective domain than the cognitive and psychomotor domains, an implication that the curriculum contained less of the application of knowledge skills. This implied that the students may graduate but they might not be able to apply their knowledge to contextual realities. Perhaps this explains why the rate of unemployment is increasing in Ghana (Amankrah, 2014). This might also explain why Ghana was ranked last in the global school rankings on Mathematics and Science.

In 2009, Ghana was ranked 47th out of 47 countries in the Mathematics competition and 48th and also out of 48 in the international Maths and Science competition (Wireko, 2009). In 2015, Ghana was ranked 76th out of 76 countries in the same global school rakings on Mathematics and Science. The report presented to the Ghana Education Service by the Science Academicians who were involved in assessing Ghana's performance said Ghana needed the right syllabi, right equipment, right structures and the right personnel to bring our level of Science, Maths, as well as English education to acceptable global standards. The 'right syllabi' might imply syllabi with the right application of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

skills. These research findings of the current study were compared to the theoretical propositions one, two and three. These theoretical propositions stated that (a) "The skills in the curriculum with the highest frequencies are an embodiment of the application of knowledge," (b) "The skills in the curriculum with the highest frequencies are basically within the affective domain" and (c) "The skills in the curriculum with the highest frequencies are basically within the psychomotor domain." The theoretical propositions one and three were rejected but we failed to reject the theoretical proposition two. This means the psychomotor domain contained most of the skills. In all, there were eighteen theoretical propositions and thirteen of them were rejected while five failed to reject. Each theoretical proposition, used in the conclusion, however, related to the findings.

The students had acquired about 63.4% of the skills in the curriculum and since the skills in the curriculum had been rated by the employers as relevant, it was concluded that the students had acquired relevant skills. It was, however, noted that most of the skills that the students had acquired were theoretical-oriented than practical. This finding corroborated with that of Jansen's (1988) and MacDonald and Rogan's (1985) research findings in South Africa. They found out that though practical work was prescribed in the syllabus, in general the closest pupils got to experimental work was reading about it in textbooks. The theoretical proposition seven that stated that, "Students acquire both theoretical and practical skills embedded in the curriculum," needed to be rejected because the acquisition of both theory and practical was not of the same value as indicated in the curriculum.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

The study revealed that the curriculum contained both cross-functional and occupation specific skills. The core subjects provided most of the cross-functional skills while the elective provided most of the occupation specific skills. The employers' rating of the skills in the curriculum also showed that they were required at the work place. These findings were in support of theoretical propositions eight, nine and thirteen, which read (a) "Students acquire cross-functional skills," (b) "Students acquire specific occupational skills," and (c) "Employers rate all the skills in the curriculum as relevant," respectively. We, therefore, failed to reject those theoretical propositions. This implied that the students acquired relevant skills that related to work related skills.

The study further revealed that there was lack of connectivity between schools and industries. This finding went contrary to the recommendations in the curriculum for the collaboration of both schools and industries purposely for imparting work related skills to students. The findings were also contrary to the theoretical propositions 10, 11 and 12, which read that (a) "Students acquire the skills of the world of work through direct involvement in the workplace," (b) "Students acquire the skills of the world of work through visits to industry experts, employers, employees and self-employed to the school" and (c) "Students acquire the skills of the world of work through visits to private and public enterprises and community organisations." These theoretical propositions were therefore rejected.

Even though the curriculum contained 'job readiness' skills, the students usually graduated with 'job training' skills. This was so because most of the skills that they had acquired related more to non-application of

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

knowledge. These findings related to job readiness and job training were contrary to Anderson and Gantz's (2013) findings that high school students required "job readiness" skills but not "job training" for success (p. 1). Again, the findings helped to fail to reject the theoretical proposition five that stated that "Students acquire 'job training' skills." The theoretical proposition six, "Students acquire 'job readiness' skills," has, therefore been rejected. The findings were also buttressed by the interview results from employers that, "You see, they [teachers] rush them [students] through the course," and "... it's just a rush. The students pass through and come out as if they have not learnt anything," as two of the interviewees reiterated.

One conclusion that was so alarming was the mismatches in the curriculum. There was a mismatch between the skills with the highest frequencies in the curriculum and the skills that the students had acquired. This mismatch could create a problem of unemployment because the students may acquire some specific skills that might not be required so much at the work place. This finding was in congruence with the research findings by Miller (1984) and Jansen (1988). Their research findings showed that one of the reasons why the Fort Hare Project in South Africa failed was that there was a fundamental mismatch between the theoretical preparation of students and the contextual realities of the school environment. In their recommendation, it was advised that the relevance of acquired cognitive skills must be examined in relation to contextual realities. The findings also showed that the theoretical proposition four, which stated that, "The first ten highest frequencies in the curriculum are the same first ten highest frequencies that students have acquired," has been rejected. This means that the skills in the

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

curriculum are not the same skills, in their order of value, which the students had acquired.

There was also a mismatch between the order of importance of the skills as rated by the employers and the order of importance of the skills in the curriculum. This research finding was contrary to the theoretical proposition 14. This theoretical proposition stated that "The first ten highest frequencies of skills that employers rate of the skills in the curriculum are the same first ten highest frequencies of skills that emerge in the curriculum." This theoretical proposition was therefore rejected since the order of importance of the skills varied with regard to what was in the curriculum and what the employers rated as frequently required.

Again, there was a mismatch between the skills of the affective domain in the curriculum in terms of skills relating to valuing and the skills relating to the application of knowledge that employers required of employees. This finding was contrary to theoretical proposition 15. This proposition stated that, "The skills in the curriculum are the same skills that employers demand of students for employment." Since the curriculum contained most of the skills from the affective domain and the employers demanded skills of the cognitive domain, the theoretical proposition 15 was rejected. This implied that employees would find it difficult to go through interview successfully.

In addition to the above mismatches, there was also a mismatch between the recommended high percentage weight of cognitive skills in the curriculum and the frequency of skills obtained under the affective domain during the content analysis. The skills with the highest frequencies were the skills of the affective domain but the highest percentage values recommended

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

in the curriculum constituted those of the cognitive domain. The first ten skills with the highest frequencies in the curriculum did not match with the first ten skills with the highest frequencies that employers required of employees. These findings went contrary to theoretical propositions 15 and 16. These propositions stated that, "The skills in the curriculum are the same skills that employers demand of students for employment," and "The first ten highest skills that employers demand of employees are the same first ten highest frequencies of skills in the curriculum." In view of the mismatches, the theoretical propositions 15 and 16 were rejected. The implication was that employees who had gone through the curriculum would not be able to satisfy the requirements for employment as they would short of some specific skills.

Furthermore, there was a mismatch between the skills that the students had acquired and those that employers demanded of employees. This finding went contrary to the last two theoretical propositions 17 and 18. These propositions stated that, "The skills that students acquire from the curriculum are among the skills that employers demand of employees," and "The first ten highest skills that the students have acquired are the same first ten highest skills employers demand of students." Since there were mismatches between the skills that the students had acquired and those skills that employers demanded of employees or graduating students, the two theoretical propositions were rejected. This has some implications as employees who had gone through the curriculum would not be able to satisfy employers' requirements expected at the work place.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Recommendations

The recommendations outlined here are based on the major findings of the study. The findings showed that the senior high school curriculum was relevant in relation to the contextual reality of the world of work. However, there are certain deficiencies that need a critical observation. It is, therefore, recommended that:

1. The senior high school curriculum should be reviewed to contain more practical oriented skills and the skills of the application of knowledge.
2. Since the curriculum contains 'job readiness' skills, teaching and learning should be given ample time so that each skill as stated in the curriculum is thoroughly developed. In other words, students should not be rushed through the curriculum.
3. The skills with the highest frequencies in the curriculum indicated the degree of importance, hence, the skills with the highest frequencies that were practical-oriented should be identified and emphasis placed on them.
4. The recommendations in the curriculum that the industry be brought to the school through the invitation of experts, employers, etc and the school taken to the industry through students' visits to work places, industries, etc. should be enforced.
5. There should be a match between the percentage values of the skills suggested in the curriculum and the frequency of skills in the curriculum. In other words, the curriculum should be reviewed to avoid all the mismatches in it. This could be done when percentage values are assigned to the various values in order to determine the significant

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

levels. When the mismatches are very significant, then the review must be a necessity.

Recommendations for Policy and Practice.

A policy direction on the implementation of the senior high school curriculum should be reviewed and practically monitored. Even though Ghana is practising a centralised system of education where the syllabus is centrally designed by the Curriculum Research and Development Division (CRDD) and handed over to the classroom teacher for implementation, the process of the implementation should be monitored to make sure that all the skills in the curriculum are taught according to the level of frequency of each skill. The review of the curriculum should take into consideration the application of skills to contextual realities of the world of work. In addition, the number of periods assigned for both theory and practical should be enforced. Furthermore, the suggestions for bringing industries into the classroom and taking the classroom to the industries should also be intensified.

Suggestions for further Research.

The study was carried out at the senior high school level. Many of the graduating senior high school students may find it very difficult to be employed in certain organisations, more especially in the formal sector. For instance, during the research, many organisations did not allow for any interview to take place there with the simple reason that they did not employ senior high school graduates. The informal sector was used mostly. It is therefore suggested that a further research be carried out with the graduating students of the various universities in Ghana by looking at the relevance of the various academic bulletins of such universities to the world of work.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

REFERENCES

Agar, M. (1993). Speaking of ethnography. In L. Cohen, L. Manion, & K. Morrison. (2007), *Research methods in education* (6th Ed.). New York: Routledge.

Akyeampong, K. (2010). *Educational expansion in Ghana: A review of 50 years of challenge and progress.* Sussex: Falmer.

Amankrah, J. Y. (2014). *Youth unemployment in Ghana: Prospects and challenges*. Ghana Statistical Service. Retrieved from www.upa.org.gh/researchpapers/youth73

American Council on Education (1966). Youth tell their story. In F. M. Raubinger, F. M. Rowe, H. G. Piper, D. L. &. West, C. K. (1969), *The development of secondary education.* London: Collier-Macmillan Ltd.

Anamuah-Mensah, J., Asabere-Ameyaw, A. & Denis, S. (2007). Bridging the gap: Linking school and the world of work in Ghana. *Journal of Career and Technical Education, 23* (1), 133 – 152,

Anderson, C. & Gantz, J. F. (2013). *Skills requirements for tomorrow's best jobs: Helping educators provide students with skills and tools they* need (IDC White Paper). Retrieved from: http://news.microsoft.com/download/presskits/education/docs/idc/_ 101513

Anderson, G. & Arsenault, N. (1998) *Fundamentals of Educational Research* (second edition). London: Routledge Falmer.

Anderson-Levitt, M. K. (2010). Some propositions to include in a theory on the global/local nexus. A paper presented on the topic "Meaning configurations in the world society: Alternative approaches to the global/local nexus. *Comparative and International Education Society Annual Conference*, Chicago, (March 2, 2010).

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Apple, M. W. (1979). *Ideology and curriculum*. Boston, MA: Routledge & Iegan Paul.

Australian Curriculum, Assessment and Reporting Authority, ACARA (2013). *Australian curriculum: Work studies, years 9-10*. ACARA.

Balarin, M. & Benavides, M. (2010). Curriculum reform and the displacement of knowledge in Peruvian rural secondary schools: Exploring the unintended local consequences of global education policies. Bath: Routledge, *Compare*, *40* (3), 311 – 325.

Barton, P. E. (2006). *High school reform and work: facing labour market realities*. Princeton: Educational Testing Service.

Basson, R. B. & Walker, G. G. (1984). A model for curriculum development in Black Primary Schooling in South African University. *Journal of Curriculum Studies*. *16* (3), 297-310.

Berman, E. & Machin, S. (2004). "Globalization, skill-biased technological change and labour demand", in E. Lee and M. Vivarelli (eds.). *Understanding globalization, employment and poverty reduction.* New York: Palgrave, pp. 39-63.

Block, A. (1998). Curriculum as affichiste: Popular culture and identity. In W. Pinar (Ed.). *Curriculum toward new identities*. New York: Garland. pp. 325-341.

Bloom, B. S. (Ed.) (1956). *Taxonomy of educational objectives: The classification of educational goals, Handbook 1: Cognitive Domain.* New York: McKay.

Boadu, K. A. (2014, May 20). Employ fresh graduates: President challenges industry. *Daily Graphic*, No.19463, pp.32-33.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Bobbitt, J. E. (1918). The curriculum. Boson: Houghton Mifflin. In A, Glatthorn, F. Boschee, & B. M. Whitehead, (2006). *Curriculum leadership: development and implementation.* California: Sage Publications Ltd

Carnevale, A, (2005). *Connecting the dots between high school, college, and Careers*, Learning Point Associates, a paper given at the Institute of Education Science Conference on Research for Improving High Schools, May 5, 2005.

Caswell, H. L. & Campbell, D. S. (1935). *Curriculum development.* New York: American Book Co.

Centre for Continuing Education of the University of Cape Coast (CCEUCC) (2002). *Philosophical and social foundations of education.* Cape Coast: Catholic Mission Press.

Chabbott, C. & Ramirez, F. O. (2000). Development and education. In *Handbook of the Sociology of Education,* M. T. Hallinan (Ed.), New York: Kluwer.

Chandler, C. (1985). Curriculum and syllabus design. *ELT Journal 39*: 101-104.

Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education* (6th Ed.). New York: Routledge.

Commission on the reorganisation of secondary education (1918). *Cardinal Principles of Education.* Washington, D. C: U.S. Government Printing Office Education.

Cooper, D. C. & Schindler, P. S. (2001). *Business Research Methods* (7th Ed.). New York: McGraw-Hill.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Cornbleth, C. (1988). Curriculum in and out of context. *Journal of curriculum and supervision. 3* (2), 85-96.

Cornbleth, C. (1990). *Curriculum in context*. New York: Falmer.

Darke, P., Shanks, G. & Broadbent, M. (1998). Successful completing case study research: Combining rigour, relevance and pragmatism. *Information Systems Journal, 8*, 273-289.

Denscombe, M. (1995). Exploration in group interviews: an evaluation of a reflexive and partisan approach. *British Educational Research Journal, 21* (2), 131-48

Dewey, J. (1902). *The child and the curriculum*. Chicago: University of Chicago Press.

Dzobo (1987). Speech delivered at the National Workshop on Educational Reform. Accra, Ghana.

Eash, M. J. (1991). Syllabus. In A. Lewy (ed). *The international encyclopedia of curriculum*. Oxford: Pergamon Press.

Education for all global monitoring report (EFAGMR) (2011). *World education blog: Secondary school, a bridge to the world of work.* World Education Blog.

Eisenhart, M. A. & Howe, K. R. (1992). Validity in educational research. In M. D. LeCompte, W. L. Millroy and J. Preissle (Eds.), *The handbook of qualitative studies in education* (pp. 643-680). New York: Academic Press.

Eisner, E. W. & Vallance, E. (1974). *Conflicting conceptions of curriculum*. Berkeley, CA: McCutchan.

Eisner, E. W. (1979). *The educational imagination*. New York: Macmillan.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Ekwueme, L., Ofoha, O., Uchegbu, C. N., Anyikwa, B. & Nkemdirim, M. (2009). *A critical appraisal of the mode of implementation of Nigerian secondary school curriculum: towards socio-economic empowerment of youth*. Research financed by Education Research Network for West and Central Africa (ERNWAC).

Ellis, A. K. (2004). *Exemplars of curriculum theory*. Larchmont, NY: Eye on Education.

English, F. W. & Kaufman, R. A. (1975). *Needs assessment: A focus for curriculum development*. Alexandria, VA, ASCD.

Erber, S. (2012). *Education for all global monitoring report: putting education to work*. UNESCO

Feinberg, P. R. (1985). Four curriculum theorists: A critique in the light of Martin Buber's philosophy of education. *Journal of Curriculum Theorizing*, *6* (1), 5-164.

Fiala, R. & Lanford, A. G. (1987). Educational ideology and the world educational revolution, 1950-1970. *Comparative Education Review*, *31* (3), 315-332.

Flick, U. (1998). *An introduction to qualitative research*. London: Sage.

Flyvbjerg, B. (2004). Five misunderstandings about case study research. In C. Seale, G. Gobo, J. F. Gubrium & D. Silverman (Eds.). *Qualitative Research Practice* (pp. 420-434). London and Thousand Oaks, CA: Sage.

Gagne, R. W. (1967). Curriculum research and the promotion of learning. In R. W. Tyler, R. M. Gagne, & M. Scriven (Eds.), *Perspectives of curricular evaluation*. Chicago: Rand McNally.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Ghana Education Service (2010). *Teaching syllabi for senior high schools.* Accra: Publishers.

Ghana Education Service (2010). *Teaching syllabus for clerical office duties.* Accra: Publishers.

Ghana Education Service (2014). *Register of programmes and courses for public and private senior high schools, technical and vocational institutes*, Accra: Publishers.

Ghana Living Standard Survey (2000). *Ghana Statistical Service*. Accra: Publishers.

Ghana Poverty Reduction Strategy Plan, 2002 – 2004, (GOG, 2002). Accra: Publishers.

Ghana ranks bottom in latest Maths, Science survey (2015). Retrieved in 2016 from: http://www.myjoyonline.com/news/201513/ghana-ranks-bottom.

Giroux, H. (1983). *Theory and resistance in education.* South Hadley, MA: Bergin and Garvey Publishers.

Glatthorn, A. A., Boschee, F. & Whitehead, B. M. (2006). *Curriculum leadership: Development and implementation.* California: Sage Publications, Inc. Gold, R. L. (1958). Roles in sociological field observations. *Social Forces*, *36*, 217–23.

Global Employment Trends Model database (ILO)(Geneva, 2006). Retrieved from: http:/www.ilo.org/public/english/employment/strat/wrest.htm.

Graham, C. K. (1976). *The history of education in Ghana.* Tema: Ghana Publishing Corporation.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Hadley, A. T. (1902). The meaning and purpose of secondary education. *The School Review, 10* (10), pp. 729-741, Chicago: The University of Chicago Press (Accessed URL:http://www.jstor.org/stable/1075462.

Hallak, J. (2000). Globalisation and its impact on education. In *Globalisation, educational transformation and societies in transition,* T. Mebrhtu, M. Crossley & D. Johnson (Eds.).Oxford, UK: Symposium Books.

Harrow, A. J. (1972). *A taxonomy of the psychomotor domain: A guide for developing behavioural objectives*. New York: McKay.

Hass, G. (1987). *Curriculum planning: A new approach* (5th Ed.). Boston: Allyn & Bacon.

Hitchcock, G. & Hughes, D. (1989). *Research and the Teacher*. London: Routledge.

Hopkins, L. T. (1941). *Interaction: The democratic process*. Boston: D. C. Health.

Huenecke, D. (1982). What is curriculum theorising? What are its implications for practice? *Educational Leadership, 39*, 290 - 294.

IMANI-Ghana (2013). *The forum for education reform: State of education in Ghana*. Retrieved from http://myjoyonline.com/opinion/2013 /Dec20th

Jackson, P. (Ed.) (1992). *Handbook of research on curriculum*. New York: Macmillan.

Jackson, P. (1992). Conceptions of curriculum and curriculum specialists. In P. Jackson (Ed.), *Handbook of Research on Curriculum* (pp. 3-40). New York: Macmillan.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Jansen, D. J. (1988). Curriculum change and contextual realities: an analysis of recent trends in Black South African education. *International Review of Education, 34* (3), 378-387.

Jungck, S. & Boonreang, K. (2003). "Thai wisdom" and globalization: Negotiating the global and the local in Thailand's National Education Reform. In M. K. Anderson-Leitt (2003) (ed). *Local meaning, global schooling: Anthropology and world culture today*. New York: Palgrave MacMillan.

Jungck, S. & Kajornsin, B. (2003). 'Thai Wisdom' and globalisation:

Kanea, A. (2014). The practices of curriculum contextualisation in selected primary schools in rural Ethiopia. *Journal of Education and Practice. 5* (10), 49-56.

King, N. R. (1986). Recontextualizing the curriculum. *Theory into Practice, 25*(1), 36-40.

Kitwood, T. M. (1977). *Values in adolescent life: towards a critical description*, Unpublished PhD dissertation, School of Education, University of Bradford.

Klein, M. F. (2009). Pivotal events and people in my career. In E. C. Short & L. J. Waks (Eds.). *Leaders in Curriculum Studies: Intellectual Self-Pursuits* (pp. 117-127).

Kliebard, H. K. (1970). The Tyler rationale. *The School Review, 78* (2), 259-272.

Kobrin, S. J. (1977). *Foreign investment, industrialisation and social change*. Greenwich, CT: JAI Press.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Krathwohl, D. R., Bloom, B. S. & Masia, B. B. (1964). *Taxonomy of educational objectives: The classification of educational goals. Handbook 2: Affective Domain.* New York: McKay.

Kvale, S. (1996). *Interviews*. London: Sage.

LeCompte, M. & Preissle, J. (1993). *Ethnography and qualitative design in educational research* (2nd Ed.). London: Academic Press.

Lee, J. (2001). School reform initiatives as balancing acts: Policy variation and educational convergence among Japan, Korea, England and the United States. *Educational Policy Analysis Archives*, 9(13). Retrieved from http://www.epaa.asu.edu.

Lincoln, Y. S. & Guba, E. (1985). *Naturalistic inquiry*. Reverly Hills, CA: Sage.

Lincoln, Y. S. (1992). Curriculum studies and the traditions of inquiry. In P. Jackson (Ed.), *Handbook of Research on Curriculum*. New York: Macmillan.

Lofland, J. (1971). *Analysing Social Settings*. Belmont, CA: Wadsworth.

Macdonald, J. B. (Ed.) (1971). *Curriculum development in relation to social and intellectual systems: Seventh yearbook of the National Society for the Study of Education*. Chicago: University of Chicago.

Macdonald, M. A. & Rogan, J. M. (1985). The in-service teacher education component of an innovation: A case study in an African setting. *Journal of Curriculum Studies*. *17* (1), 63-85.

Maclure, S. (1999). *Education reformed: A guide to education reform Act* (3rd Ed.). London: Hodder & Stoughton.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Mankoe, J. O. (2002). *Educational administration and management in Ghana.* Madina- Accra: Progressive Stars Limited.

Mankoe, J. O. (2013). *Quality assessment of educational reforms in Ghana.* Retrieved from hhp://www.wikieducator.org/images/2/24/quality _assessment _of_educationalreforms_in_ghana)

Marsh, C. J. (1992). *Key concepts for understanding curriculum.* London: The Falmer Press.

Marie-Lou, H. C., Roos, W., Christiane, T. & Jorgen, C. (2011). *Instruments and guidelines for qualitative fieldwork.* EUMAGINE Project Paper 6B.

Marsh, C. J. (2004). *Key concepts for understanding curriculum* (3rd Edit.). London: The Falmer Press.

Marsh, C. J. & G. Willis, G. (2007). *Curriculum: alternative approaches, ongoing issues* (4th ed.). New Jersey: Pearson Prentice Hall.

McBrien, J. L., & Brandt, R. (Eds.). (1997). *The language of learning: A guide to educational terms.* Alexandria, VA: Association for Supervision and Curriculum Development.

McMillan, J. H. (1996). *Educational research: Fundamentals for the consumer* (2nd Ed.). New York: HarperCollins Publications Incs.

McNeely, C. L. (1995). *Constructing the nation-state: International organisation and prescriptive action.* Westport, CT: Greenwood.

McNeil, J. D. (1985). *Curriculum: A comprehensive introduction* (3rd ed.). Boston: Little, Brown.

McWilliam, H. O. A. & Kwamena-Poh, M. A. (1975). *The development of education in Ghana.* London: Longman.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Merriam, S. B. (1988). *Case study research in education*. San Francisco, CA: Jossey Bass.

Meyer, J. W. & Ramirez, F. O. (2000). The world institutionalisation of education. In J. Schriewer (Ed.). *Discourse formation in comparative education*. New York: Peter Lang.

Meyer, J. W., Boli, J., George, M. T. Ramirz, F. O. (1997). World society and the nation- State. *American Journal of Sociology*, 84-92.

Meyer, J. W., Kamens, D. & Benavot, A. (1992). *School knowledge for the masses: World models and national primary curricular categories in the twentieth century*. Washington DC: Falmer.

Milburn, G. (2000). Understanding curriculum. *Journal of Curriculum Studies, 32* (3), 445- 52.

Millar, C. (1984). Curriculum improvement or social innovation? A case study in teacher education at a Black South African University. *Journal of Curriculum Studies. 16* (3), 297-310.

Ministry of Education (2009). *Education Sector Report*. Accra: Publishes.

Ministry of Education (2002). *Report of the Education Review Committee*, Accra: Publishers.

Ministry of Education (2004). *Education Sector Report*. Accra: Publishers.

Ministry of Education (2005). *Education Sector Report*. Accra: Publishers.

Ministry of Education (2007). *Education Sector Report*. Accra: Publishers.

Ministry of Education (2008). *Education Sector Report*. Accra: Publishers.

Ministry of Education, Youth and Sports (2004). *White paper on the report of the education reform review committee*, Accra: Publishers.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Ministry of Manpower, Youth and Employment (2006). *The youth employment situation in Ghana.* Accra: Publishers.

National Youth Policy of Ghana (2010). *Towards an empowered youth, impacting positively on national development.* Accra: Publishers.

Negotiating the global and the local in Thailand's national education reform. In Anderson-Levitt, K. M. (ed.) (2003). *Local meaning, global schooling: Anthropology and world culture today.* New York: Palgrave Macmillan.

Niesbet, J. & Watt, J. (1984). Case study. In J. Bell, T. Bush, A. Fox, J. Goodey & S. Goulding (Eds.). *Conducting small-scale investigations in educational management.* (pp. 79-92).London: Harper & Row.

Odamtten, S. K. (1996). *Indigenous and western educational systems in Ghana.* Accra: Ghana University Press.

Ohene-Acquaye, A. (Ed.) (2011*). AB's guide to top 101 senior high schools in Ghana.* Baatsona: Smartline Publishing Ltd.

Okrah, A. K. (2002). *Fidelity approach to curriculum implementation: The case of transacting the core English curriculum at the secondary schools in the Brong Ahafo region of Ghana.* Unpublished MPhil Thesis.

Oliart, P. (2006). *State reform and resilient powers: Teachers, school culture and the neoliberal education reform in Peru.* PhD thesis, Newcastle University, Newcastle upon Tyne.

Oliva, P. F. (1988). *Developing the curriculum.* Glenview: Foresman & Co.

Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitude measurement.* London: Printer.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Otunga, R. H. & Nyandusi, C. (2013). *The context of curriculum development in Kenya.* Eldoret: Moi University Press.

Pacheco, J. A. (2012). Curriculum studies: What is the field today? *Journal of the American Association for the Advancement of Curriculum Studies, 8*, 1-18.

Partnership for 21st Century Skills (2009). *Curriculum and instruction: A 21st century skills implementation guide*. Retrieved: Dec. 2015 through http://www.21stcenturyskills.org

Paul, J., Kleinhamner-Tramill, J. & Fowler, K. (2009). *Qualitative research methods in special education.* Colorado: Love Publishing Company.

Pinar, W. E. (1978). Notes on the curriculum field. *Educational Researcher, 7* (8), 5-11.

Pinar, W. F. & Grumet, M. R. (1991). Theory and practice and the reconceptualization of curriculum studies. In M. Lawn & L. Barton (Eds.), *Rethinking Curriculum Studies: A Radical Approach* (pp. 20-42). New York: Croom Helm London.

Pinar, W. F. (1979). What is the reconceptualization? *Journal of Curriculum Theorizing, 1* (1), 93-104).

Pinar, W. F. (1999). Not burdens – Breakthroughs. *Curriculum Inquiry. 23* (3), 365-67

Pinar, W. F. (2008). Curriculum theory since 1950, crisis, reconcepualization, internationalization, In M. Connelly, H. Fang & J. Phillion. (Eds.), *Handbook of Curriculum and Instruction* (pp. 491-513), Los Angeles: Sage.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Pinar, W. F. (2010). The Eight-year study. *Curriculum Inquiry, 40* (2), 295-316.

Pinar, W. F., Reynolds, W. M., Slattery, P. & Taubman, P. M. (Eds.). (1995). *Understanding curriculum: An introduction to the study of historical and contemporary curriculum discourses*. New York: Peter Lang.

Popham, W. J., & Baker, E. I. (1970). *Systematic instruction*. Englewood Cliffs, NJ: Prentice Hall.

Punia, S. (2015). *A relations' approach to relevance in curriculum development in vocational education and training.*

Ragan, W. B. (1960). *Modern elementary curriculum*. New York: Henry Holt.

Ramirez, F. O. & Boli, J. (1987). The political construction of mass schooling: European origins and worldwide institutionalisation. *Sociology of Education, 60* (1): 12-17.

Rauginger, F. M., Rowe, H. G., Piper, D. L. & West, C. K. (1969) *The development of secondary education*. London: Collier-Macmillan Ltd.

Reeves, T. C. (2006), How do you know they are learning?: the importance of alignment in higher education. *Int. J. Learning Technology. 2*(4), 294-309

Reimer, B. (1980). *Building an aesthetic education curriculum: A model and its application*. Carolina: University of North Carolina Press.

Robson, C. (2002). *Real world research*. Oxford: Blackwell.

Rogan, J. M. & Luckowski, J. A. (1990). Curriculum tests: the portrayal of the field, Part 1, *Journal of Curriculum Studies, 22* (1), 17-39.

Rosenbaum, J. (2005). *Educational Opportunity in American Society: A Research Agenda for Studying Transitions*, Learning Point Associates,

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

a paper given at the Institute of Education Science Conference on Research for Improving High Schools.

Rugg, H. O. (ed.) (1927). The foundations of curriculum making. Twenty sixth yearbook of the National Society for the Study of Education Part II. Bloomington, IL: Public School Publishing Company. In A. Glatthorn, F. Boschee, & B. M. Whitehead (2006). *Curriculum leadership: development and implementation.* California: Sage Publications Ltd.

Saylor, J. G., Alexamder, W. M. & Lewis, A. J. (1981). *Curriculum planning for better teaching and learning* (4th ed.). New York: Holt, Rinehart & Winston.

Scheurich, J. J. (1995). A postmodernist critique of research interviewing. *Qualitative Studies in Education, 8* (3), 239-52

Schiro, M. (1978). *Curriculum for better schools: The great ideological debate*. Englewood Cliffs, NJ: Educational Technology Publications.

Schwab, J. J. (1970).The practical: A language for curriculum. *The School Review, 78* (1), 1- 23.

Seidman, I. (1998). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (3rd Ed.). New York: Teachers College Press

Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences* (3rd Ed.). New York: Teachers College Press

Silverman, D. (1993). *Interpreting qualitative data*. London: Sage.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Slattery, P. (2006). *Curriculum development in the postmodern era* (2nd edition.). New York: Routledge.

Smith, P. G. (Ed.). (1970). *Theories of value and problems of education: Readings in philosophy of education*. Chicago: University of Illinois Press.

Soliman, I., Dawes, L., Gough, J., & Maxwell, T. (1981). *A model for school-based curriculum development*. Camberra, CDC.

Somavia, J. (2006). *Changing patterns in the world of work: international labour conference* 95th session 2006. Retrieved from: http://www.ilo.org/public/english/standards/relm/ilc/ilc95/reports.htm

Soysal, Y. N. & Strang, D. (1989). Construction of first mass systems in nineteenth-century Europe. *Sociology of Education, 62*, 277-288.

Spradley, J. P. (1980) *Participant Observation*. NewYork: Holt, Rinehart & Winston.

Squire, K. D., Makinster, J. G., Barnett, M., Luehmann, A. L. & Barab, S. L. (2002, 2003). *Designed curriculum and local culture: Acknowledging the primacy of classroom culture*. New York: Wiley Periodicals, Inc.

Stambach, A. (2003). World-culture and anthropological interpretations of choice programming in Tanzanian education. In , K. Anderson-Levitt (Ed) *Local Meanings, Global Schooling* (pp. 141-160). New York: Macmillan Palgrave.

Stenhouse, L. (1975). *An introduction to curriculum research and development*. London: Heinemann Educational Books Ltd.

Taba, H. (1960). *Curriculum development: Theory and practice*. New York: Harcourt, Brace, & World.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Taba, H. (1962). *Curriculum development: Theory and practice*. New York: Harcourt, Brace, & World.

Tanner, D. & Tanner, L. (1981). Emancipation from research: The reconceptualists' prescription. *Educational Researcher, 8* (6), 8-12

Tanner, D. & Tanner, L. (2007). *Curriculum development: Theory into practice* (4th ed.). New Jersey: Pearson Publication, Inc.

Tonah, S. (2006). *The unending cycle of education reform in Ghana*: a revised and shortened version of a paper presented at the African Studies Association of Germany Conference, Goethe University, Frankfurt/Germany, July 24-27, 2006.

Tuckman, B. W. (1972) *Conducting Educational Research*. New York: Harcourt Brace Jovanovich

Tyler, W. R. (1957). The curriculum then and now. In *Proceedings of the 1956 Invitational Conference on Testing Problems*. Pinceton, NJ: Educational Testing Service.

Uchendu, V. C. (1979). *Education and politics in tropical Africa*. NY: Conch Magazine.

Vallence, E. (1982). The practical uses of curriculum theory. *Theory into Practice, 21* (1), 4-10.

Valley View University (2005-2009). *Academic bulletin*. Accra: Advent Press.

Van Manen, M. (1978). Reconceptualist curriculum thought: A review of recent literature. *Curriculum Inquiry, 8* (4), 365-71.

Waks, L. J. (2010). Afterword: Reflections on curriculum studies since 1960. In E. Malewski (Ed.). *Curriculum Studies Handbook: the Next Moment* (pp.231-235). New York: Routledge.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Walker, D. F. (1971). A naturalistic model for curriculum development. Chicago: The University of Chicago Press. *The School Review, 80*, (1) 51- 63.

White, J. (ed.) (2004). *Rethinking the school curriculum: Values, aims and purposes*. London: Routeledge Falmer.

Winter, G. (2000) A comparative discussion of the notion of 'validity' in qualitative and quantitative research. *The Qualitative Report, 4*, 3–4.

Wireko, V. (2009). *Ghana last in Science and Maths? How come?* Retrieved in 2016 from: http://opinion.myjoyonline.com/feature200911/37393.

Woolman, D. C. (2001). Educational reconstruction and post-colonial curriculum development: A comparative study of four African countries. *International Education Journal, 2*(5).

Wright, H. K. (2000). Nailing Jell-O to the wall: Pinpointing aspects of state-of-the-art curriculum theorizing. *Educational Researcher, 29* (5), 4-13.

Yin, R. K. (1984). *Case study research: Design and methods* (2nd Ed.). Sage Publications, Thousand Oaks.

Yin, R. K. (1994). *Case study research: Design and methods* (3rd Ed.). Sage Publications, Thousand Oaks.

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

APPENDICES

APPENDIX A

PERSONAL LETTER OF INTRODUCTION

FACULTY OF HUMANITIES AND SOCIAL SCIENCES
UNIVERSITY OF CAPE COAST, CAPE COAST

October 15, 2015

The Manager/Manageress/Director
.....
.....

Dear Sir/Mad.,

LETTER OF INTRODUCTION

I am Abraham Kwadwo Okrah, a PhD *Curriculum and Teaching* student of the Faculty of Humanities and Social Sciences Education, University of Cape Coast. I am seeking for primary information through interviews from key personnel of your esteemed organisation to enable me to write up and submit a paper in partial fulfilment of the requirements of a PhD programme. Please, kindly find attached a copy of an introductory letter from the Head of Department of Department of Arts and Social Sciences Education, University of Cape Coast.

The title of my thesis is "***Relevance of the senior high school curriculum in relation to contextual reality of the world of work.***" The senior high school level is a terminating point for a majority of students. This study, therefore, seeks to find out the relationship between the skills embedded in the curriculum and those employable skills that industries demand of employees. It would, therefore, be appreciated if you could take a little time out of your tight schedule for an interaction with you through an interview.

The overall aim is to contribute to the design of the senior high school curriculum taking into consideration the employable skills that industries and organisations demand of employees.

I would like to assure you that the information being sought out will be used for academic purposes only. The ethical rights of respondents in terms of anonymity and confidentiality will be respected.

Thank you in advance for your anticipated cooperation and assistance.

Yours faithfully,

Signed
ABRAHAM KWADWO OKRAH

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

APPENDIX B

UNIVERSITY OF CAPE COAST

COLLEGE OF EDUCATION STUDIES

Department of Arts & Social Sciences Education

TELEPHONE: +233 03321 35411/ +233 03321 32480/3.
EXT: (268); Direct: 35411.
Telegrams & Cables: University, Cape Coast
OUR REF: DASSE/ED/ECT/12/0003
YOUR REF:

University Post Office,
Cape Coast, Ghana.

Date: 11th March, 2015

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

The bearer of this letter **Mr. Abraham Okrah** is a PhD student of the Department of Arts and Social Sciences Education of the University of Cape Coast, Ghana.

He requires some information from your institution for the purpose of writing a thesis as a requirement for the pursuit of PhD Programme. His topic is **"Relevance of the Senior High School Curriculum in Relation to the Contextual Reality in the World of Work".**

I would be grateful if you would kindly allow him to collect the information from your institution. Kindly give the necessary assistance that Mr. **Abraham Okrah** requires from you.

I will appreciate any help that you may be able to give.

DR. KOFI TSIVANYO YIBOE
HEAD OF DEPARTMENT

ARTS & SOCIAL SCIENCES EDUCATION
UNIVERSITY OF CAPE COAST
CAPE COAST, GHANA

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

APPENDIX C
STRUCTURED INTERVIEW FOR EMPLOYERS

1. What is the category of employees, in terms of education, you have in your organisation?
2. What skills do you expect your employees to exhibit/demonstrate?
3. What skills and competences do your employees have that make them well developed and civically competent workers (What make them competent enough to do the work?)
4. What is the level of competence in their oral communication?
5. What is their level of competence in their written communication?
6. What skills do they have in order to seek for information?
7. What skills do they have in order to critically evaluate issues or information?
8. What skills do they have to enable them to analyse data?
9. What is the level of their ability to take positions or stance based on the examination of data?
10. What shows that they can advocate for taking a position/stance based on the findings of the search for information?
11. What initiatives, self-starting/self-motivated skills do they exhibit? (entrepreneurialism and entrepreneurial related skills)
12. To what extent do your employees demonstrate Microsoft, Microsoft Office and other software skills?
13. What is your overall assessment of your employees in terms of their ability to initiate their own business?

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview of Employers

Agricultural Programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of the importance of agriculture to the national economy;					
2.	Appreciation	of the basic principles and role of animal improvement in agric					
3.	Recognition	of various occupations in agriculture for the youth					
4.	Measurement	in agribusiness					
5.	Demonstration	of an understanding of qualitative and quantitative properties of solutions					
6.	Relation	the physical and chemical properties of the soil to crop growth					
7.	Application	of good husbandry practices to control weeds, pests and diseases in crop production					
8.	Acquisition	of skills in the production and marketing of pets					
9.	Handling	of farm machines and implements					
10.	Understanding	the concept of heat, its relationship with temperature and its effects on substances					
11.	Determining	energy changes in chemical reactions					
12.	Interpretation	of energy changes in chemical reactions					
13.	Communication	of energy changes in chemical reactions					
14.	Identification	of energy changes in chemical reactions					
15.	Management	Skills in agribusiness					
16.	Maintenance	culture for machines and implements					
17.	Utilisation/using	basic economic principles in agribusiness					
18.	Description	of the features of forestry and the importance of forest products in national development					
19.	Adoption	of appropriate measures for ensuring soil and water conservation					
20.	Familiarity	with the procedures for proper handling and storage of animal feeds					
21.	Development	knowledge and skills to care for and manage poultry					
22.	Planning	to establish an enterprise based on Animal Husbandry					
23.	Showing	understanding of the preparation, uses and behaviour of some gases under different conditions					
24.	Prediction	of chemical formulas based on the number of valence electrons;					
25.	Designing	simple experiments to determine the effects of the various factors on rate of reactions and systems in equilibrium					
26.	Performance	of simple calculations based on rate and equilibrium laws					
27.	Exploration	of acidic and basic solutions qualitatively and quantitatively					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview of Employers

Science Programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	that fuel can be generated from biological sources					
2.	Appreciation	of the concept of straight lines and apply them in related problems					
3.	Recognition	of various types of motion					
4.	Demonstration	of knowledge of the characteristic tests to detect functional groups					
5.	Relation	of the structure of plant parts to their functions					
6.	Application	of the basic first aid methods to save life					
7.	Acquisition	of preparing wet-mounts and observing them under the microscope					
8.	Understanding	the concept of heat					
9.	Determining	energy changes in chemical reactions					
10.	Interpretation	of energy changes in chemical reactions					
11.	Communication	of energy changes in chemical reactions					
12.	Identification	of the significance of biological associations in ecosystems					
13.	Utilisation/using	the probability scale from 0 to 1					
14.	Description	acids and bases					
15.	Development	of an understanding of the structure of the atom					
16.	Showing	understanding of the preparation, uses and behaviour of some gases					
17.	Prediction	of chemical formulas based on the number of valence electrons					
18.	Designing	simple experiments					
19.	Performance	of simple calculations based on rate and equilibrium laws					
20.	Exploration	of acidic and basic solutions qualitatively and quantitatively					
21.	Ability	to manipulate the light microscope					
22.	Assigning	organisms to their various economic groups					
23.	Distinguishing	between various organisms, based on their characteristics					
24.	Resolution	of rational function into partial fractions					
25.	Finding	resultants of vectors					
26.	Explanation	of explain the probability scale from 0 to 1					
27.	Listing	sample space of an experiment					
28.	Calculation	of measures of location					
29.	Writing	vectors in components					
30.	Solution	of problems related to the parabola					
31.	Carrying out	differentiation and integration on polynomials					
32.	Differentiation	between permutation (dealing with arrangement) and combination (dealing with selection)					
33.	Representation	of data graphically and interpret the graph					
34.	Drawing	valid conclusions from truth tables					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview of Employers

Technical Drawing Programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of appropriate techniques in architectural drawings					
2.	Appreciation	of the concept of straight lines and apply them in related problems					
3.	Recognition	of types of roofs in building construction					
4.	Relation	of gradients of parallel, perpendicular and intersecting lines					
5.	Application	of building drawing to actual building processes					
6.	Acquisition	of knowledge of building materials					
7.	Understanding	the principles of intersections; the construction of arches					
8.	Determining	coefficient of friction					
9.	Utilisation/using	knowledge of conditional probability to solve real life problems					
10.	Development	of effective habits for safe use of drawing instruments					
11.	Ability	to convince others logically on the validity of statements made					
12.	Distinguishing	between mutually exclusive and independent events					
13.	Resolution	of rational function into partial fractions					
14.	Finding	resultants of vectors					
15.	Explanation	the probability scale from 0 to 1					
16.	Listing	the sample space of an experiment					
17.	Calculation	correlation coefficients between two sets of data					
18.	Writing	vectors in components forms					
19.	Solution	problems related to the parabola					
20.	Carrying out	differentiation and integration on polynomials					
21.	Differentiation	between permutation and combination					
22.	Representation	data graphically and interpret the graph					
23.	Drawing	valid conclusions from truth tables					

Closed Quantitative Interview of Employers

Business Programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of the forms of business organizations being operated in Ghana					
2.	Appreciation	of the world of business					
3.	Recognition	of the social, ethical and legal responsibilities of business					
4.	Acquisition	of knowledge of the major stages in the accounting process					
5.	Understanding	the basic principles of the management of scarce resources					
6.	Identification	the various types of elasticity of demand and their importance					
7.	Development	of skills in preparing payroll and pay slip					
8.	Ability	to prepare cost ledger accounts and extract a trial balance					
9.	Knowing	how to make out sales invoices including VAT					
10.	Computing	VAT on input and output					
11.	Predisposition	to the meaning and the role of Standard Costing in decision making					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview of Employers

General Arts Programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of the role of the media in shaping Public Opinion					
2.	Appreciation	of the use of statistical tools in economic analysis					
3.	Recognition	of the crucial importance of the electoral process					
4.	Acquisition	of skills in map interpretation and analysis					
5.	Understanding	the scope, concepts and principles of Government					
6.	Communication	In the media and the preparation of articles					
7.	Identification	the various types of elasticity of demand and their importance					
8.	Description	of new techniques needed in the world of work					
9.	Development	develop empathy for other environments with different resources					
10.	Showing	an understanding of the activities of the arms of Government					
11.	Ability	to differentiate the old and modern forms of communication					
12.	Explanation	of the effects of tourism on the economy of Ghana					
13.	Speech	about the various economies					
14.	Restructuring/rec onstitution	the plot of a story					
15.	Summary	of themes in a story					
16.	Locating & analysing	images and symbolism in texts					
17.	Expression	of opinion					
18.	Questioning and answering	on health, traditional medicine. r					
19.	Exposure	rights of individuals					
20.	Argument	by judging the values presented in a written work					

Closed Quantitative Interview of Employers

Visual Arts programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of the concepts of art and the role of visual arts in national development					
2.	Appreciation	of appreciate the need for sustaining the textile industry					
3.	Recognition	of fibres as a basic material for yarn making					
4.	Application	of knowledge and skills in entrepreneurial practices to develop a business plan					
5.	Acquisition	of knowledge and skills in handling and preparing basketry materials					
6.	Understanding	the elements and principles of design					
7.	Identification	of the career related professions/vocations under visual arts education					
8.	Development	of elements of design and organize them into a design					
9.	Ability	state the skills needed for practicing a visual arts profession/vocation					
10.	Exposure	to the computer as an aid or tool in designing and making in Art					
11.	Reflection	upon the artists of the period and their contribution to the development of Visual Arts					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview Employers
Home Economics programme

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of the role kitchens play in food preparation and food service					
2.	Appreciation	of the domestic and industrial uses of some solids and liquids					
3.	Recognition	of the career opportunities in Management in Living					
4.	Demonstration	of an understanding of qualitative and quantitative properties of solutions					
5.	Application	of the principles underlying food storage and preservation					
6.	Acquisition	of skills in preventing and managing accidents in the home					
7.	Understanding	basic cooking terms					
8.	Determining	energy changes in chemical reactions					
9.	Interpretation	energy changes in chemical reactions					
10.	Communication	energy changes in chemical reactions					
11.	Identification	of careers related to chemistry					
12.	Utilisation/using	appropriate strategies to boost the marketing of food products					
13.	Description	acids and bases					
14.	Development	of skills in dealing with crises and conflicts in the family					
15.	Planning	of optimum use of resources					
16.	Showing	understanding of the preparation, uses and behaviour of some gases under different conditions					
17.	Prediction	chemical formulas based on the number of valence electrons					
18.	Designing	simple experiments					
19.	Performance	simple calculations based on rate and equilibrium laws					
20.	Exploration	acidic and basic solutions qualitatively and quantitatively					
21.	Ability	to differentiate the old and modern forms of communication					
22.	Explanation	of the effects of tourism on the economy of Ghana					
23.	Speech	about the various economies					
24.	Restructuring/reconstitution	the plot of a story					
25.	Summary	of themes in a story					
26.	Locating & analysing	images and symbolism in texts					
27.	Expression	of opinion					
28.	Questioning and answering	on health, traditional medicine. r					
29.	Exposure	rights of individuals					
30.	Argument	by judging the values presented in a written work					
31.	Examination	of the role of decision making in family living					
32.	Conservation	of the use of utilities in the home					
33.	Judgement	of advertisement					
34.	Practice	basic table etiquette at mealtimes					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Closed Quantitative Interview of Employers

The Core Subjects

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	articulation	of various English speech sounds					
2.	speaking	of English as fluently as possible; accurately and fluently					
3.	awareness	of the importance of light and heat energy					
4.	developing	a scientific approach to problem solving; skills for writing grammatically correct essays					
5.	acquisition	of skills for creative writing; life- long positive attitudes and values; of life- long positive attitudes and values					
6.	identification	of arbitrary and standard units of measure					
7.	composition	of pieces of writing on a variety of topics					
8.	appreciation	of the impact of ICT on everyday life					
9.	derivation	of ethical values from literary works					
10.	cultivating	the habit of reading					
11.	application	the acquired ICT literacy skills in solving everyday challenges					
12.	enhancing	language skills					
13.	making	graphical representations of equations and inequalities					
14.	analysing	a problem to obtain it's solution					
15.	using	the acquired ICT literacy skills to enhance learning of other subjects					
16.	writing	composition pieces on a variety of topics					
17.	critical	reasoning in discourse					
18.	analytical	reasoning in discourse					
19.	logical	reasoning in discourse					
20.	observation	of the functions of the various grammatical forms in given contexts					
21.	practising	creative writing					
22.	understanding	the nature of matter in its various forms					
23.	computation	to perform calculations; carry out mental computations					
24.	recalling	mathematical knowledge in the context of everyday situations					
25.	interpretation	of mathematical knowledge in the context of everyday situations					
26.	organisation	of information accurately in written, graphical and diagrammatic forms					
27.	presentation	of information accurately in written, graphical and diagrammatic forms					
28.	measurement	of figures to an acceptable degree of accuracy; various quantities;					
29.	construction	of figures to an acceptable degree of accuracy					
30.	logical	thinking					
31.	abstract	thinking					
32.	selection	of a suitable strategy to obtain a solution					
33.	estimation	of degrees of accuracy appropriate to the context; various quantities;					
34.	approximation	of degrees of accuracy appropriate to the context					
35.	response	orally to questions about mathematics;					
36.	discussion	discuss mathematics ideas					
37.	practical work	to investigate extended pieces of work					
38.	co-operation	working with other students.					
39.	reading	reading numbers					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

40.	making	generalizations					
41.	recognition	of the benefits of science and technology for national development					
42.	relation	of solids and plane shapes					
43.	collection	of data					
44.	finding	probability of events					
45.	manipulation	of learning material to enhance understanding of concepts and skills					
46.	maintenance	of good health and good gender relations with friends and family					
47.	avoidance	of irresponsible behaviour					
48.	adoption	of culturally approved behaviours					
49.	living	a life of peace and harmony with fellow Ghanaians and with people of other cultures					
50.	planning	adequate programmes for the sustainability of the country's development					
51.	responsibility	of becoming a competent and productive worker when employed in industry					
52.	upholding	the constitution and the principles of democracy					
53.	Decision making	of taking measures to prevent autocratic rule					
54.	creation	of solutions for adapting the physical environment to the needs of society					
55.	performance	of responsibilities to state and country					
56.	typing	to improve typing speed and accuracy					
57.	delivery	of presentations					
58.	exhibition	of 21st century skills in academic and social life					
59.	formatting	document in a word processing document					
60.	editing	document in a word processing document					

Closed Quantitative Interview of Employers

All the Seven Programmes

Please, the following skills have been identified in the senior high school curriculum. I am going to read and explain them and based on your understanding rate them by ticking in the spaces provided. The scale is: *0= Not required [NR]; 1= Less required [LR]; 2 = Required [R]; 3= Mostly required [MR]; 4= Highly required [HR]*

No.	Skills	Examples	0	1	2	3	4
1.	Awareness	of importance of agriculture to the national economy; of forms of business organizations					
2.	Appreciation	of the world of business; of the need for sustaining the textile industry;					
3.	Recognition	of the career opportunities in Management in Living; of the social, ethical and legal responsibilities of business					
4.	Measurement	in agribusiness					
5.	Demonstration	of knowledge of the characteristic tests to detect functional groups;					
6.	Relation	of gradients of parallel, perpendicular and intersecting lines					
7.	Application	of knowledge and skills in entrepreneurial practices to develop a business plan					
8.	Acquisition	of knowledge of building materials; of knowledge of the major stages in the accounting process; of skills in map interpretation and analysis					
9.	Handling	of farm machines and implements;					
10.	Understanding	the basic principles of the management of scarce resources; the scope, concepts and principles of Government; the concept of heat					
11.	Determining	energy changes in chemical reactions; coefficient of friction					
12.	Interpretation	of energy changes in chemical reactions					
13.	Communication	of energy changes in chemical reactions					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

14.	Identification	of energy changes in chemical reactions					
15.	Management	Skills in agribusiness					
16.	Maintenance	culture for machines and implements					
17.	Utilisation/using	basic economic principles in agribusiness; the probability scale from 0 to 1					
18.	Description	of acids and bases; of new techniques needed in the world of work					
19.	Adoption	of appropriate measures for ensuring soil and water conservation;					
20.	Familiarity	with the procedures for proper handling and storage of animal feeds;					
21.	Development	of knowledge and skills to care for and manage poultry					
22.	Planning	to establish an enterprise based on Animal Husbandry					
23.	Showing	understanding of the preparation, uses and behaviour of some gases under different conditions					
24.	Prediction	of chemical formulas based on the number of valence electrons;					
25.	Designing	simple experiments to determine the effects of the various factors on rate of reactions and systems in equilibrium					
26.	Performance	of simple calculations based on rate and equilibrium laws					
27.	Exploration	of acidic and basic solutions qualitatively and quantitatively					
28.	Ability	to manipulate the light microscope					
29.	Assigning	organisms to their various economic groups					
30.	Distinguishing	between various organisms, based on their characteristics					
31.	Resolution	of rational function into partial fractions					
32.	Finding	resultants of vectors					
33.	Explanation	of explain the probability scale from 0 to 1					
34.	Listing	sample space of an experiment					
35.	Calculation	of measures of location					
36.	Writing	vectors in components					
37.	Solution	of problems related to the parabola					
38.	Carrying out	differentiation and integration on polynomials					
39.	Differentiation	between permutation (dealing with arrangement) and combination (dealing with selection)					
40.	Representation	of data graphically and interpret the graph					
41.	Drawing	valid conclusions from truth tables					
42.	Knowing	how to make out sales invoices including VAT					
43.	Computing	VAT on input and output					
44.	Predisposition	to the meaning and the role of Standard Costing in decision making					
45.	Following	the plot of a story					
46.	Speech	on the various economies					
47.	Restructure/reconstruct	the plot of a story					
48.	Summary	of themes in a story					
49.	Locating & analysing	images and symbolism in texts					
50.	Expression	of opinion					
51.	Questioning & answering	on health, traditional medicine. r					
52.	Exposure	rights of individuals					
53.	Argument	by judging the values presented in a written work					
54.	Examination	of the role of decision making in family living					
55.	Conservation	of the use of utilities in the home					
56.	Judgement	of advertisement					
57.	Practice	basic table etiquette at mealtimes					
58.	Reflection	upon the artists of the period and their contribution to the development of Visual Arts					

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

APPENDIX D

INTERVIEW SCHEDULE FOR STUDENTS

1. What decision did you preconceive when you started the programme with regard to employment, self-employment or further studies?
2. Do you still hold on to that decision?
3. Assuming you are right away going to work after the programme, what work will you like to do and why?
4. What are some of your experiences that will enable you to do the job?
5. What is your familiarity with the skills in the curriculum? Now take the following pieces of sheet that contain the skills in the curriculum of the senior high school programme. I will read and explain then you select from 0-4 in terms of your familiarity with the skill: [0 = not familiar at all; 1 = less familiar; 2 = familiar; 3 = more familiar; 4 = most familiar]
6. a) Please, do recollect the number of times you have had the opportunity to do practical at work places under the supervision of employers?
   b) What was the difference between the theory and the practical work?
7. Describe a scenario whereby you were directly involved at a work place supervised by an employer.
8. Mention to me the industry experts, employers, employees and self-employed who have ever visited you and given you talk on selected topics.
9. Which private and public enterprises and community organisations have you ever visited for the purpose of learning?
10. What have the three years' experience taught you about employment opportunities after senior high school programme?

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. Read them carefully and identify the skills that you are familiar with. Write 0 to 4 in the spaces provided according to your familiarity with them:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Agricultural programme

Skills	Agric	Animal Husbandry	Chemistry	Physics
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Measurement	[ ]	[ ]	[ ]	[ ]
Demonstration	[ ]	[ ]	[ ]	[ ]
Relation	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Handling	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Determining	[ ]	[ ]	[ ]	[ ]
Interpretation	[ ]	[ ]	[ ]	[ ]
Communication	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Management	[ ]	[ ]	[ ]	[ ]
Maintenance	[ ]	[ ]	[ ]	[ ]
Utilisation/using	[ ]	[ ]	[ ]	[ ]
Description	[ ]	[ ]	[ ]	[ ]
Adoption	[ ]	[ ]	[ ]	[ ]
Familiarity	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Planning	[ ]	[ ]	[ ]	[ ]
Showing	[ ]	[ ]	[ ]	[ ]
Prediction	[ ]	[ ]	[ ]	[ ]
Designing	[ ]	[ ]	[ ]	[ ]
Performance	[ ]	[ ]	[ ]	[ ]
Exploration	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. Read them carefully and identify the skills that you are familiar with. Write 0 to 4 in the spaces provided according to your familiarity with them:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Science programme

Skills	Biology	Elective Maths	Chemistry	Physics
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Demonstration	[ ]	[ ]	[ ]	[ ]
Relation	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Determining	[ ]	[ ]	[ ]	[ ]
Interpretation	[ ]	[ ]	[ ]	[ ]
Communication	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Utilisation/using	[ ]	[ ]	[ ]	[ ]
Description	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Showing	[ ]	[ ]	[ ]	[ ]
Prediction	[ ]	[ ]	[ ]	[ ]
Designing	[ ]	[ ]	[ ]	[ ]
Performance	[ ]	[ ]	[ ]	[ ]
Exploration	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Assigning	[ ]	[ ]	[ ]	[ ]
Distinguishing	[ ]	[ ]	[ ]	[ ]
Resolution	[ ]	[ ]	[ ]	[ ]
Finding	[ ]	[ ]	[ ]	[ ]
Explanation	[ ]	[ ]	[ ]	[ ]
Listing	[ ]	[ ]	[ ]	[ ]
Calculation	[ ]	[ ]	[ ]	[ ]
Writing	[ ]	[ ]	[ ]	[ ]
Solution	[ ]	[ ]	[ ]	[ ]
Carrying out	[ ]	[ ]	[ ]	[ ]
Differentiation	[ ]	[ ]	[ ]	[ ]
Representation	[ ]	[ ]	[ ]	[ ]
Drawing	[ ]			

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Technical Drawing programme

Skills	Tech. Drawing	Elective Maths	Build. Const.	Physics
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Relation	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Determining	[ ]	[ ]	[ ]	[ ]
Utilisation/using	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Distinguishing	[ ]	[ ]	[ ]	[ ]
Resolution	[ ]	[ ]	[ ]	[ ]
Finding	[ ]	[ ]	[ ]	[ ]
Explanation	[ ]	[ ]	[ ]	[ ]
Listing	[ ]	[ ]	[ ]	[ ]
Calculation	[ ]	[ ]	[ ]	[ ]
Writing	[ ]	[ ]	[ ]	[ ]
Solution	[ ]	[ ]	[ ]	[ ]
Carrying out	[ ]	[ ]	[ ]	[ ]
Differentiation	[ ]	[ ]	[ ]	[ ]
Representation	[ ]	[ ]	[ ]	[ ]
Drawing	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Business programme

	Business Management	Economics	Financial Accounts	Principles Costing
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Knowing	[ ]	[ ]	[ ]	[ ]
Computing	[ ]	[ ]	[ ]	[ ]
Predisposition	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

General Arts programme

Skills	Geography	Economics	Government	French
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Communication	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Description	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Showing	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Explanation	[ ]	[ ]	[ ]	[ ]
Speech	[ ]	[ ]	[ ]	[ ]
Restructuring/reconstitution	[ ]	[ ]	[ ]	[ ]
Summary	[ ]	[ ]	[ ]	[ ]
Locating & analysing	[ ]	[ ]	[ ]	[ ]
Expression	[ ]	[ ]	[ ]	[ ]
Asking and answering	[ ]	[ ]	[ ]	[ ]
Exposure	[ ]	[ ]	[ ]	[ ]
Argument	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Visual Arts programme

Skills	Gen. Know. in Arts	Economics	Basketry	Textiles
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Exposure	[ ]	[ ]	[ ]	[ ]
Reflection	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Home Economics programme

Skills	Magm't in Living	Food & Nutrition	Chemistry	French
Awareness	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]
Recognition	[ ]	[ ]	[ ]	[ ]
Demonstration	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]
Determining	[ ]	[ ]	[ ]	[ ]
Interpretation	[ ]	[ ]	[ ]	[ ]
Communication	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]
Utilisation/using	[ ]	[ ]	[ ]	[ ]
Description	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]
Planning	[ ]	[ ]	[ ]	[ ]
Showing	[ ]	[ ]	[ ]	[ ]
Prediction	[ ]	[ ]	[ ]	[ ]
Designing	[ ]	[ ]	[ ]	[ ]
Performance	[ ]	[ ]	[ ]	[ ]
Exploration	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]
Explanation	[ ]	[ ]	[ ]	[ ]
Speech	[ ]	[ ]	[ ]	[ ]
Restructuring/reconstitute	[ ]	[ ]	[ ]	[ ]
Summary	[ ]	[ ]	[ ]	[ ]
Locating & analysing	[ ]	[ ]	[ ]	[ ]
Expression	[ ]	[ ]	[ ]	[ ]
Asking and answering	[ ]	[ ]	[ ]	[ ]
Exposure	[ ]	[ ]	[ ]	[ ]
Argument	[ ]	[ ]	[ ]	[ ]
Examination	[ ]	[ ]	[ ]	[ ]
Conservation	[ ]	[ ]	[ ]	[ ]
Judgement	[ ]	[ ]	[ ]	[ ]
Practice	[ ]			

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

STATEMENTS FOR STUDENTS

Closed Quantitative Interview of Students

The following skills have been identified in the senior high school curriculum. I am going to read and explain each of them to you then write 0, 1, 2, 3 or 4 in the spaces provided according to your familiarity with them the scale is:

0 = not familiar at all
1 = less familiar
2 = familiar
3 = more familiar
4 = most familiar

Generic skills of all the seven programme

Skills	Agric.	Science	Technical	Business	General Arts	Visual Arts	Home Economics
Awareness	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Appreciation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Recognizance	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Measurement	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Demonstration	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Relation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Application	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Acquisition	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Handling	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Understanding	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Determining	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Interpretation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Communication	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Identification	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Management	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Maintenance	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Utilisation/using	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Description	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Adoption	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Familiarity	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Development	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Planning	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Showing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Prediction	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Designing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Performance	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Exploration	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Ability	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Assigning	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Distinguishing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Resolution	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Finding	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Explanation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Listing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Calculation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Writing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Solution	[ ]	[ ]	[[				

Digitized by Sam Jonah Library
SAM JONAH LIBRARY
UNIVERSITY OF CAPE COAST
CAPE COAST

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Carrying out	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Differentiation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Representation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Drawing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Knowing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Computing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Predisposition	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Following	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Speech	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Restructure/recon	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Summary	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Locating & analy	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Expression	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Asking & answer.	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Exposure	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Argument	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Examination	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Conservation	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Judgement	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Practice	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Reflection	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Digitized by Sam Jonah Library