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Support Systems: Essential Pivots of Textiles Education in Senior High Schools in Ghana

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Abstract:

The sole aim of any Visual Art programme of which Textiles is of no exception is to foster creativity and equip learners with skills to be self-employed. Skill acquisition comes with a task, thus putting the right resources in place to ensure that a desirable result is achieved. Also, there must be key stakeholders to ensure that resources are utilized effectively because the sustenance of every institution largely depends on the availability and accessibility of support systems in the teaching and learning environment. This study sought to identify and assess availability of Support Systems for Textiles education and their impact on students' skills acquisition. The study employed the mixed method approach of qualitative and quantitative methods with the focus on descriptive case study research design. It made use of interview, questionnaire and observation as the main data collection instruments with a sample size of seventy-two respondents obtained from 5 selected SHS within Kumasi metropolis. The study revealed there are evidential skills gaps and shortages in the training of textiles students at the SHS which render them unemployable after school. Lack of tangible and intangible support systems such as tools, equipment, materials, lack of stakeholders' engagement, lack of innovation on the part of teachers, limited instructional period and neglect of co-curricular activities to complement teaching were found to be the major causes. Establishment of District Practical Teaching Facilities by government with well-equipped textiles support systems, is recommended to provide the needed supports to the schools within the metropolis. Policymakers; MoE, GES and NaCCA should put in place proper monitoring mechanism to ensure compliance by the SHS to the objectives of the Textiles programme.

Keywords: Support systems, textiles education, essential pivots, senior high schools, visual Art

1. Introduction

The survival and success of any Visual Art program largely depend on the Support systems available. Support systems are a broad variety of instructional approaches, educational services, or facilities delivered to learners in an attempt to assist them to speed up their learning progress, become at par with their peers, meet learning goals, or basically to be successful in school (Edglossary 2013). Support Systems in Textiles Education are a network of resources that provide Textiles students with practical support for the acquisition of skills to enable them to practice a vocation after school. The network of resources may include physical and human resources which must be available and accessible to the Textiles learner to have a holistic education. Ifeanyichuku (2013) is of the view that when teaching and learning facilities, tools and equipment as well as logistics and expertise are available, learners are motivated and the productivity and efficiency of teachers are enhanced. On the contrary, when these afore-mentioned resources are lacking or inadequate, students are likely to perform abysmally. The availability of these basic items in education boosts the productiveness of schools with regard to academic performance in the students (Atieno 2014).

Visual Art education has been introduced into schools in Ghana to encourage students to be creative and position them to solve problems in the country with less difficulty (Edusei, 2004). This means that students offering Visual Art would be equipped with the prerequisite skills that would empower them to secure livelihood for themselves and their families as well as serve the society in diverse ways. The objective of the program is to foster creativity, appreciation and criticism of artefacts, mass production, and promotion of artefacts (Sintim, 2008). The curriculum of the Visual Art programme outlines eight subjects including, Textiles, Leatherwork, Graphic Design, Picture Making, Jewellery, Sculpture,

Ceramics and Basketry and each student is required to narrow down in two subjects for three instructional years of Senior High Education together with General Knowledge in Arts which is the core (Opoku-Asare, Agbenatoe, & Degraft-Johnson 2014). These Visual art subjects according to Siaw and Nortey (2011), can be grouped into two categories that are two-dimensional and three-dimensional categories.

Textiles, a major component of the Visual Art programme is considered as an element of Visual Art that encircle all activities in art which constitute two and three-dimensional forms (Textiles Teaching Syllabus, 2008). Taking the local industry into consideration, the Textiles syllabus is designed to expand the furtherance of indigenous Textiles industry due to the global competitions which have caused the overriding and falling apart of the Textiles industry in Ghana. Senior High School Textiles programme is very broad and for that matter expected to offer enough knowledge and skills to students ending their education at the Senior High School who would practice the vocation for industrial and national development (Howard 2013). Meanwhile, many graduates of the SHS Visual Art programmes like textiles do not have the prerequisite skills to be self-employed (Antwi-Boadi, 2002). Usman (2016) holds the view that to enhance the output of the education system which includes Textiles, there must be the availability and accessibility of educational resources.

Additionally, the SHS teaching syllabus for Textiles suggests tools, equipment and materials that should be made available for the instructional activities in Textiles, and the manner in which Textiles teachers should carry out practical lessons in the school environment. To enhance the output of Textiles students to create employment, these questions boggle the mind of the researchers; who are the stakeholders involved? What are the available materials, equipment and tools needed to augment the instructional process? and how is the instructional process conducted? To find answers to these questions, the study was conducted with the main aim of assessing Support Systems available for teaching and learning of Textiles and how they impact on students' skills acquisition in selected Senior High Schools in the Kumasi metropolis.

2. Theoretical Review and Conceptual Framework of the Study

2.1. Support Systems-Concept and Structure

Support systems involve diverse instructional strategies, educational services, and school resources that offer assistance to students for the acceleration of skill acquisition and learning progress, meet anticipated school prerequisites and learning standards, and succeed in their education (GSP 2016). Husson (2018) asserts that support systems are group of services that are distant from the conventional educating devices that the project administration program supplies to its students. Edglossary (2013) views support system as a broad assortment of instructional strategies, educational services, or school assets conveyed to students to help them speed up their learning progress, become at par with their peers, meet learning measures, or fundamentally to be fruitful in school. Businessdictionary (2019) describes Support Systems as a formal and informal network of merchandise, administrations, staff, and organizations that buttress an entity in its survival and development. The Support Systems sustains the Textiles program in its survival and growth. Vocabulary (2018) puts it this way, a network of people, facilities, experts who interconnect and remain in informal communication for reciprocal support, hence a network that permit you to live in a characterized way. In Textiles education, Support Systems can be defined as a network of resources that provide Textiles students with practical support for the acquisition of skills to enable them practice a vocation after school. Support Systems in Textiles Education at the Senior High School can be categorised into two, namely; tangible and intangible support systems.

2.2. Tangible Support System

Tangible Support Systems are those with physical form which are quantifiable and are utilized in the company's operations (Harness 2018; Murphy 2019). Grant (2002) opines that Tangible Support Systems comprises workers, stakeholders, monetary resources, formal organizational structures and physical assets such as infrastructure. From Grant's definition, it can be deduced that, the tangible support systems are the physical and human resources needed in Textiles education to safeguard and foster efficient teaching and learning.

2.2.1. Physical Resources in Textiles Education

Teaching and learning can be effective when resources are sufficient and accessible. Atieno (2014) posits that schools that have inadequate physical resources such as classrooms, workshops, laboratories (studios in the case of Textiles), teaching-learning materials are likely to perform poorly. In other words, the accessibility of instructional materials enhances the productiveness of schools as these are essential needs that can ensure great performance in students learning (Atieno 2014). Ifeanyichuku (2013) posits that, when facilities, equipment, tools and materials as well as adequate personnel are available, students are motivated which enhances teacher's efficiency and productivity. CRDD (2010) confirms that practical works can be successfully executed when schools are given a workspace which contains at least a set of Textiles equipment, tools and materials capturing all the areas comprising equipment for printing/dyeing, embroidery/appliqué and weaving. Physical facilities in effect are an important variable in both attendance and achievement (Jonathan, Nzeadibe, & Nzeadibe, 2014; Kapinga 2017). It can be established therefore that physical resources encompass all the school facilities and materials that ensure effectual teaching and learning of Textiles. These physical resources are indispensable in textile education and they include; tools/equipment, materials, studios/sheds, library, syllabus, textbooks, Textiles industry both indigenous and contemporary and the department of Textiles in the higher institutions.

2.2.2. Human Resources in Textiles Education

Human resources are defined by Heathfield(2018) as a single person or employee within an organization. Therefore, the human resources in Textiles Education involve all the stakeholders responsible for ensuring that Textiles Education achieves its sole aim of equipping students with skills to practice a vocation. In other words, the individuals who provide students with the opportunity to develop their skills. Human resources include stakeholders in Textiles education. These stakeholders in Textiles education include the Textiles teacher, head of department, Ghana Education Service, National Council for Curriculum and Assessment (NaCCA), the district assembly, heads of schools, parents, Parent-Teacher Association and Textiles lecturers.

2.3. Intangible Support System

Intangible Support System refers to the non-physical resources of an institution that cannot be measured due to its ambiguity and complexity (Adero, 2012). According to Barney (2007), as cited by Adero, (2012) intangible resources include both organizational and human capital. Human capital includes expertise and the way workers are organized. Intangible support system focuses on the theoretical knowledge students need to be taught with the help of the tangible support system in order to have a holistic education in terms of skill acquisition. The teaching syllabus emphasizes that students must be taken through practical topics which include printing, weaving, dyeing, knitting, crocheting, embroidery and applique because these topics are capable of equipping students with the requisite skills for the creation of jobs to alleviate poverty.

2.4. Textiles Education in the Senior High School in Ghana

For an extended time, Textiles has remained a very significant area in Ghana's educational system, both the formal and informal sectors and has served as the upholder for managing and projecting the nation's image (Bruce-Amartey, 2012). Textiles education is obtainable at each secondary and tertiary levels in Ghana, and has collectively helped to scale back impoverishment, increase employment opportunities and average incomes, and to boost the overall welfare and also the material well-being of each young Ghanaian who has shown interest in the area of Textiles (Bruce-Amartey, 2012; Howard 2013). Textiles as a subject under the 2D category is offered in addition to at least one elective of the 3D category (Sculpture, Ceramics, Leatherwork, Basketry, Jewellery) plus GKA which is compulsory. According to Sintim(2008), Textiles students combine their electives to four core courses namely Mathematics, English language, Integrated Science and Social Studies. He added that the combination of the elective and core subjects prepares students for further education.

Currently, Textiles has influenced communication, health, education and the overall lifestyle of communities. The progress of art and technology rely for the most part on Textiles. Consequently, the socio-economic development of nations has seen progress due to Textiles and boosted the standard of living in various components across the globe. In the same vein, the energy of Textiles, combined with Science and Technology reinforces the survival and growth of Ghana. To this effect, it is necessary to assist the youth of Ghana to develop creative skills and competence in Textiles not solely to contribute to the development and significance of science and technology. In addition, these will enhance industry, economics, social studies and definitely, the proud history as a nation (CRDD 2010). Based on these theoretical grounds, the conceptual framework (Figure 1) was adapted from CIPP Model for evaluation propounded by Stufflebeam (1966) to establish a clear direction and focus for the study

2.5. The CIPP Model for Evaluation

The CIPP Model is a thorough framework for assisting formative and summative evaluations of programs, projects, personnel, products, institutions, and systems. This model was established by Daniel Stufflebeam in 1966 to guide mandated evaluations of U.S. federally funded projects because these emergent projects could not meet requirements for controlled, variable-manipulating experiments, which they were considered the gold standard for program evaluations (Stufflebeam 2011).

The CIPP Model (Context, Input, Process, and Product) is relevant for both summative and formative evaluation (Aziz, Mahmood, & Rehman 2018).

Zhang et al. (2011) establish that, the CIPP evaluation model is designed to systematically guide both evaluators and stakeholders in posing relevant questions and conducting assessments at the beginning of a project (context and input evaluation), while it is in progress (input and process evaluation), and at its end (product evaluation).

In a nutshell, the goal of evaluation is to gather information to be compared with the criteria that have been made and conclude afterwards (Warju Warju 2016).

The CIPP model comes in four elements which are context, input, process and product (Figure 1);

Figure 1: Conceptual Framework Adapted from Stufflebeam (1966)

3. Methodology

The study employed a mixed-methods approach using case study and descriptive research methods with questionnaire, interview and observation as the main data collection instruments. The mixed-method was applied in this study to identify the support systems available for Textiles Education and also to assess their impact on students' skill acquisition in selected Senior High Schools. The qualitative approach was employed in this study to collect information from teachers and other stakeholders on their contribution to Textiles education in selected Senior High Schools in Kumasi Metropolis to ensure that students have holistic education that is geared towards skill acquisition. Also, to gather information on physical resources which enhance the teaching and learning in selected senior high schools in the Kumasi Metropolis, as the study area.

Quantitative approach enabled the researchers to administer questionnaire to a large group of students to gain insight into the way the teaching of Textiles is being conducted, the availability of tools, equipment and materials, the skill they have acquired through the three-year instructional periods and also to assess whether the skills they have acquired are enough to be self-employed. The descriptive research employed in this study was appropriate as it enabled the researchers to triangulate the research questions and instruments which allowed for critical observation of the support systems in place in the various Textiles department and describe their impact on students' skill acquisition. The case study method helped in careful examination of the five selected Senior High Schools in the Kumasi Metropolis offering Textiles. It also enabled the research team to ascertain physical and human resources available for Textiles Education in the selected Schools and how these resources ensure a holistic Textiles education.

The study focused on Textiles students and teachers in five selected schools in the Kumasi metropolis. The participating schools are coded for the reason for secrecy. The sampled schools were encoded as School A, School B, School C, School D, School E for anonymity and confidentiality. The study targeted all Textiles students in the five selected Schools with a total of 281, five Headmasters, five Visual Art HOD's, five assemblymen, ten Textiles teachers, one NaCCA coordinator, and three Textiles lecturers, making a total of 310 respondents.

The accessible population was fifty final year Textiles students of the sampled schools, three heads of the sampled schools, five Visual Art HOD's in the sampled schools, three assemblymen, seven Textiles teachers in the sampled schools, one NaCCA coordinator, and three Textiles lecturers. The total number of the accessible population was seventy-two. Using purposive sampling, the fifty final year Textiles students were administered with questionnaire by the research team to solicit information on how instructional process in textiles is conducted, the availability of workspace, tools, equipment, and the skill students have acquired in textiles. A one-on-one interview was conducted with seven Textiles teachers, five HOD's, three heads of the sampled SHS, three assemblymen, one NaCCA coordinator, three Textiles lecturers were all interviewed through the administration of a structured interview guide to gain insight into their contribution to Textiles education.

Convenience sampling technique was used to select fifty final year students who were available and ready to provide the needed information from the selected Textiles SHS in the Kumasi metropolis. Observation was employed to collect data on the availability of workspace, tools, equipment, materials and other instructional materials. Again, the manner in which practical lessons are conducted in the selected schools was made possible through observation.

4. Results and Discussion

4.1. Availability of Tools, Equipment and Materials

Curriculum Research Development Division (2010) suggests that practical works can be effective in Textiles education when schools have a studio furnished with a minimum of a set of textile equipment from all the groups which comprise of weaving equipment, printing /dyeing equipment, embroidery/appliqué equipment as outlined in Table 1.

Scope	Tools/Equipment	Materials
Weaving	Traditional Kente looms, Table and broadlooms Weaving accessories (reed, heddle hook, reed hook, warping mill, skeiner, bobbin winder, shuttle, and warping/shedding sticks.	Yarns (hanks/cones/cheeses)
Printing and Dyeing	Printing tables (padded), wooden frames /screens, squeegees, spoons, bowls/buckets Large coal pots, stoves (kerosene/gas/electric) Hand gloves and face masks	Chemicals: Photo-emulsion, dichromate, hydrosulphite, caustic soda, common salt, fine mesh or silk organdie, plain fabrics (poplin/calico/linen) Waxes, raffia threads, 'kokonte' powder. Dyes (Vat, procion, etc.)
Applique, Embroidery, Crocheting, Knitting	Knitting pins/needles, Crocheting pins Hand-sewing needles (assorted sizes)	Stranded cotton/cotton-a-boarder /metallic threads Sequins/beads Fabrics (decorated / undecorated / coloured).

Table 1: Suggested Tools, Equipment and Materials from the SHS Textiles Syllabus

Source: CRDD, 2010

The results from the schools studied through observation on the availability of work space, tools, equipment and materials are however presented in Table 2. This was done to establish availability of tools, equipment and materials that are indispensable in the teaching of textiles at the high school level.

School	Workspace, Tools, Equipment, Material
School A	Common studio, broken broadloom without accessories
School B	No studio, two broadlooms, one damaged and without accessories
School C	Large studio, one broadloom, one traditional loom, loom accessories, darkroom with a lightbox, five unpadded tables, small quantities of dyes, hydrosulphite, caustic soda, printing paste, a large bowl, three squeegees, buckets, coal pot, spoons, a container holding pins, needles, pieces of fabric, fine mesh
School D	No studio, equipment and materials.
School E	Large studio, two broadlooms with accessories, darkroom with a lightbox, padded tables, two coal pots, two big pots, Adinkra stamps, small quantities of printing paste, dyes, wax, container holding pins, needle, pieces of fabrics.

Table 2: Work Space, Tools, Equipment and Materials in the Selected Schools

Source: Field Survey, 2019

Using CRDD (2010) standards in Table 1 as the basis for assessment, it could be established that the facilities and logistics with respect to workspace, tools, equipment and materials found in the selected schools are woefully inadequate for effective textiles education. Also, other schools have no studio, tools, equipment and materials which impact negatively on the Textiles programme. This affirms Antwi-Boadi (2002) and Okai-Mensah (2015), findings that unavailability of resources impedes practical activities and results in student's incapability of practising Textiles as a profession after school. Danso (2008) attests to the fact that students are able to acquire the needed skills when the necessary tools and equipment are utilised effectively and consistently. This means that without tools, equipment and materials, students offering Textiles will lack basic skills to enable them perform simple tasks for self-employment or work for a textile firm.

4.2. Availability of Instructional Material

Responding to administered questionnaire, majority the respondents, 70% indicated that they have no handouts or textbooks for further reading or reference material on the subject. This category of students posit that they rely heavily on notes provided by their teachers whiles 30% pointed out that they have textbooks in addition to the notes given to them by their teachers.

Instructional materials found in the schools include Art for Schools and Colleges, Textiles notes gathered from the university, Fibre to Fabric, Textiles Technology for Schools, compiled notes from the internet, and Introduction to Textiles for SHS. These are unapproved teaching materials published by printing press by individual authors are into commercialisation of book production. Evidently, there is lack of approved government text books for textile education in

Ghana. Interview with NaCCA co-ordinator confirmed that government has stopped publishing textbooks and has given the teachers the mandate to write for their approval to enhance teaching and learning. The study found that due to the delays and meticulous approval mechanism by NaCCA, some teachers who manage to write failed to seek approval and go ahead to publish as pamphlet of unedited books. Such materials come with standardization issues, grammatical typographical errors, clarity and misleading of facts.

4.3. Teachers Inability to Complete the Syllabus within the 3-Year Period

The SHS textiles syllabus is organised to cover a period of three years. Each year consists of a number of sections and units (CRDD 2010). Teachers believe that the Textiles syllabus is broad as confirmed by Howard (2013) that Senior High School Textiles program is very broad and for that matter expected to offer enough knowledge and skills to students terminating their education at the end of Senior High School who would practice the vocation for industrial and national development. Agreeing with the findings of Okai-Mensah (2015), students who are taken through all the topics in the syllabus are likely to gain the requisite skills to practise a vocation.

This notwithstanding, textile teachers interviewed indicated that the contact hours allocated on the time table for the teaching of textiles are woefully inadequate considering how the syllabus is loaded. However, the NaCCA co-ordinator debunked this claim attributing it to the lackadaisical attitudes and laziness on the part of the teachers. The study found knowledge and skill gaps in the training of textiles students as result of teachers' inability to complete the syllabus within the stipulated three years of the SHS textiles programme.

4.4. Competencies of the Textiles Teachers

Instructors are required to have sufficient professional and requisite knowledge that will help them to lead the learners in instruction (Yalo, Arshad, & Salleh, 2016). From the study, it was revealed that majority (6) of the teachers have classroom experience in terms of number of years of teaching. Opoku-Asare and Siaw (2016) posit that the number of years a teacher has served in the classroom indicates acquisition of much knowledge and expertise in coaching, sharing and mentoring colleagues. Okai-Mensah (2015) however opines that long years of teaching does not equate to competency if there is inadequate in-service training to improve on the teacher's instructional strategies. This implies that the long teaching experience coupled with adequate in-service training to improve the teacher's instructional strategies should be the benchmark for assessing competency of teachers especially in a practical oriented programme like textiles. The study revealed that competencies of the teachers are not visibly measurable due to lack of requisite resources for teaching though they claimed to have the expertise with requisite skills to train students when resources are made available to augment instructional activities.

4.5. Contribution of Heads of Department

Interview with heads of department of the various schools brought to light that requisitions of tools and equipment needed by the department are made by them. Teachers in all the five schools added that Heads of department do their possible best to get them all the needed resources to ensure effective teaching and learning. The responses of the various Heads of Department interviewed affirms this submission. Three of the teachers, however, indicated that the lack of resources for practical lessons does not mean that they are reluctant to ensure their availability but rather the failure of Heads of school to release funds to support the Textiles programme. The teachers lamented that some heads of schools are not in favour of the Visual Art program and for that matter channel all resources to other departments like science and business. The situation of lack of physical resources to support the Textiles programme has resulted in teachers over relying on theoretical teaching which will impact negatively on acquisition of skills by students. This finding confirms Opoku-Asare & Siaw (2016) that when there is no financial support for teachers and students to demonstrate their lessons, there is a negative impact on skill acquisition in the Visual Art program of which Textiles is inclusive.

4.6. Contribution of Academic Heads of Schools

In an interview with academic headmasters/mistresses of the five schools, they submitted that they provide tools, equipment and sometimes materials for the Visual Art Department adding that, the program is running due to their efforts. Meanwhile, some teachers and HOD's disagree with the assertion that they provide the requisite resources for the Visual Art Depart. It was found that there were inadequate tools, equipment and materials in almost all the schools sampled which means that most of the heads of the selected schools do not provide logistics to support the Textiles programme. This hinders effective delivery of instructions creating skill gaps in the training of textile students.

4.7. Parental Involvement

School is considered as a social entity and for that matter parents play an important role in their ward's education. In finding the extent to which parents support their wards studying textiles at the SHS, majority (80%) of the students sampled disclosed that their parents provide them with financial assistance for the purchase of materials for practical lessons due to lack of provision of materials by their respective schools. Teachers also confirmed that students buy their own materials for practical lessons. Studies have shown that students perform academically well when they have the support of their parents (Amponsah, Milledzi, Ampofo, & Gyambrah 2018). It could be deduced therefore that, if all parents make the effort to always provide materials for practical works and other stakeholders play their part of ensuring that tools and equipment are available and accessible, there will be high probability for students to gain the requisite skills

needed to be self-employed after school. Quality education in Textiles can only be attained through stakeholders' collective efforts (Moswela 2014) to play their roles as expected of them.

4.8. Contribution of PTA, NaCCA, Assemblymen, GES

Interviews conducted with PTA, NaCCA, GES and opinion leaders revealed that, these key stakeholders do not provide much support to the various schools to support effective running of the textile's education. Meanwhile, NaCCA coordinator in an interview revealed that the government has stopped publishing textbooks so their work is to approve of a book as and when it is written and submitted by teachers for inspection and approval. The three assemblymen interviewed are all oblivious to the challenges facing Textiles education in their assembly jurisdiction; therefore, they have not made any contribution in that respect. According to Laboneexpress(2015), assemblymen define and execute plans, programs and strategies for the successful mobilization of the resources fundamental for the overall development of the area. This could mean that assemblymen are not fully discharging their duties because ensuring the overall development of the area includes the schools that are also situated in the districts.

4.9. Contribution of Textiles Lecturers

The three lecturers; two from the Textiles and Fashion Dept. KNUST and one from Textiles and Fashion Dept. UEW-K, interviewed confirmed that Textiles students from the SHS have not been embarking on educational trip to their departments nowadays to have an experience of what they are learning. However, the lecturers revealed that Textiles teachers sometimes consult them to guide them through WASSCE practical examination questions. The lecturers submitted that even though they are aware of the difficulties confronting Textiles education at the SHS level, yet their inputs have been very minimal. However, they expressed their readiness to support Textiles Education in the SHS only if teachers and policymakers involve them in decisions regarding Textiles Education in the Senior High Schools.

4.10. Calibre and Interest of Students in the SHS Textiles Programme

Heads of departments in the sampled schools brought to light that most of the students admitted into the textiles programme are those with low grades. It was revealed that most of the students admitted into SHS do not have interest in the Visual Art programme and for that matter Textiles. They added that some students come there with their own specializations in mind, therefore, placing them in their respective specializations becomes a challenge. Questionnaire responses on admission of students into their respective specializations, 5% of the students reading textiles indicated that they were forced into the Textiles programme with no interest while 95% indicated their interest in Textiles and would want to pursue as their career in the future. The study observed that the boys' schools do not have many students offering Textiles because they believe that Textiles is a feminine course as reiterated by some teachers and HODs' of the selected schools.

4.11. Assessment of Teaching and Learning of Textiles

The questionnaire consisted of items under each scope which involved five alternative responses with respect to how teaching is done: strongly agree=5, agree=4, not sure=3, disagree=2, strongly disagree=1.

4.11.1. Teaching of Weaving

Tables 1, 2 and 3 show respondents views on teaching of weaving at the selected schools.

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	16	32.0	32.0	32.0
Strongly Agree	34	68.0	68.0	100.0
Total	50	100.0	100.0	

Table 1: Evidence of Teachers Teaching Broad/Traditional Looms Weaving Lessons

Source: Field Survey, 2019

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	42	84.0	84.0	84.0
Agree	8	16.0	16.0	100.0
Total	50	100.0	100.0	

Table 2: Demonstration by Teachers on Broad and Traditional Looms

Source: Field Survey, 2019

Inferring from Table 1, it is evident that, majority of the respondents (68%) disagree whereas 32% agree that teachers at the selected schools teach practical broad/traditional loom weaving. On the issue on demonstration, Table 2 shows that 82%, as against 16%, disagree that teachers in the selected schools demonstrate practical weaving to students. Two (2) teachers established in an interview that they demonstrate to students but due to time constraint the students are unable to demonstrate to prove their understanding and skills in weaving. Five (5) teachers indicated that notes are given to students due to the fact that there are no tools, equipment and materials to be used. Also, students buy their own materials but due to financial constraints most of them cannot afford to provide the needed materials for weaving lessons.

This, however, makes it impossible to effectively teach the practical weaving lessons. It was observed that teachers are compelled to employ lecturing method instead of demonstration in teaching weaving lessons due to the aforementioned circumstances.

4.11.2. Teaching of Dyeing

	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	3	6.0	6.0	6.0
strongly agree	47	94.0	94.0	100.0
Total	50	100.0	100.0	

Table 3: Evidence of Teachers Teaching of Dyeing Lessons

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	15	30.0	30.0	30.0
Strongly Agree	35	70.0	70.0	100.0
Total	50	100.0	100.0	

Table 4: Demonstration by Teachers During dyeing Lessons

Source: Field Survey, 2019

From Tables 3 and 4, it is obvious that a large majority of 94% and 70% of students strongly agree that the teaching of dyeing has always been coupled with a demonstration respectively. Teachers confirmed that dyeing has always been practically demonstrated because it does not require any sophisticated tools and equipment as compared to weaving. Others also expressed that dyeing does not require a lot of instructional time compared to weaving that can take the whole term. It was observed in two of the selected schools that practical lessons were done during Saturdays to provide ample time for the students to practise and also for teachers to meet their objectives for the lessons. It can, therefore, be deduced that teachers demonstrate dyeing lessons.

4.11.3. Teaching of Printing

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	50	100.0	100.0	100.0

Table 5: Evidence of Teachers Teaching Block/Direct Printing Lessons

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	11	22.0	22.0	22.0
Agree	14	28.0	28.0	50.0
Strongly Agree	25	50.0	50.0	100.0
Total	50	100.0	100.0	

Table 6: Demonstration by Teachers in Block/Direct Printing Lessons

Source: Field Survey, 2019

Generally, teachers in the selected schools teach and demonstrate printing lessons to students as evident in Tables 5 and 6. All the respondents (100%) admitted that teachers in the selected schools teach printing with 78% reiterating that teachers use demonstration to augment their teaching. However, interviews with teachers in school D, it was revealed that due to lack of workspace, tools, and equipment, students visit freelance artists for the production of their practical works. The danger is that some students might be tempted to hire someone to do their printing practical works for them for award of marks which will result in academic dishonesty.

4.11.4. Teaching of Embroidery and Applique

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Sure	4	8.0	8.0	8.0
Agree	4	8.0	8.0	16.0
Strongly Agree	42	84.0	84.0	100.0
Total	50	100.0	100.0	

Table 7: Evidence of Teachers Teaching Embroidery/Applique Lessons

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	9	18.0	18.0	18.0
Agree	16	32.0	32.0	50.0
Strongly Agree	25	50.0	50.0	100.0
Total	50	100.0	100.0	

Table 8: Demonstration by Teachers in Embroidery/Applique Lessons
Source: Field Survey, 2019

Responses from Tables 7 and 8 show clearly the teaching of embroidery and applique is coupled with demonstration. Teachers believe that teaching embroidery and applique do not require much resources since it can be done in the classroom with few materials and tools.

4.11.5. Teaching of Crocheting and Knitting

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	50	100.0	100.0	100.0

Table 9: Evidence of Teachers Teaching Knitting/Crocheting Lessons

	Frequency	Percent	Valid Percent	Cumulative Percent
Disagree	20	40.0	40.0	40.0
Agree	5	10.0	10.0	50.0
Strongly Agree	25	50.0	50.0	100.0
Total	50	100.0	100.0	

Table 10: Demonstration by Teachers in Knitting/Crocheting Lessons
Source: Field Survey, 2019

Students indicated that (Table 9 and 10), knitting and crocheting were practically taught and demonstrated. This was confirmed by teachers. Findings on the assessment of teaching and learning of textiles in the selected schools show clearly that students are taken through all the various components of the textile's syllabus; however, the manner in which the teaching is done is where the challenge is. Teachers are willing to demonstrate all lessons but time and availability of resources have become the major impediments which impact negatively on acquisition of practical knowledge and skills of the textile's students in the selected schools.

4.12. Assessment of Students' Skill Acquisition in Textiles

To establish the impact of the teaching of textiles by the teachers on students, the study also sought to assess students' acquisition of skills in Textiles. The questionnaire, aimed at revealing the skills acquired by students, consisted of items under each scope involving three alternative responses; very skilled=3, skilled=2, not skilled=1.

Weaving Skills	Not Skilled	Skilled	Very Skilled	Mean (m)	Standard Deviation (sd)
Warping	30	7	13	1.66	.872
Beaming	35	10	5	1.40	.670
Heddling	40	6	4	1.28	.607
Reeding	32	14	4	1.40	.644
Tying -up	32	12	6	1.48	.707
Weft preparation	10	20	20	2.20	.756
Actual weaving	35	12	3	1.36	.598
Total				M= 1.54	SD= 0.69

Table 11: Assessment of Students' Skill Acquisition in Weaving

In weaving, it is evident from the responses of the students in Table 11 that they lack adequate skills which are expected to make them employable. Tools and equipment are woefully inadequate for effective delivery of weaving lessons. This confirms an assertion made by (Antwi-Boadi, 2002) that lack of tools and equipment militate against practical activities and result in students running away from weaving question to dyeing or printing during WASSCE. This hinders teachers from demonstrating and rather compel them to handle weaving lessons theoretically. It was observed that even schools where tools and equipment are available, teachers are not demonstrating weaving due to limited contact hours. Students could not practise what they have learnt after school. This is an indication that students lack requisite skills in weaving in order to practise weaving as a vocation after school.

4.12.1. Assessment of Students Skill in Dyeing

Table 12 shows the skills assessment of textiles students of the selected schools.

Dyeing Skills	Not Skilled	Skilled	Very Skilled	Mean (m)	Standard Deviation (sd)
Preparation of fabric for dyeing	5	15	30	2.50	.678
Dye bath preparation	30	15	5	1.50	.678
Batik production	25	15	10	1.70	.789
Tie/dye production	5	15	30	2.50	.678
Total				M= 2.05	SD= 0.706

Table 12: Assessment of Students Skill in Dyeing
Source: Field Survey, 2019

From Table 12, it is evident that students have acquired enough skills in dyeing as compared to weaving. This confirms that teachers have done significant demonstration during dyeing practical lessons though some students still that what they have been taught is not enough to practice dyeing a vocation after school.

4.12.2. Assessment of Students' Skill in Printing

Table 13 indicates that majority (86%) of the students are skilful in screen. It also confirms that teachers have been demonstrating screen printing and involve students in the instructional period.

Printing Skills	Not Skilled	Skilled	Very Skilled	Mean (m)	Standard Deviation (sd)
Construction and preparation of screens	10	35	5	1.90	.544
Preparation of printing paste	41	5	4	1.26	.599
Printing with screens	8	29	13	2.10	.647
Preparation of badie printing ink, designing and printing a piece of adinkra cloth	50	-	-	1.00	.000
Printing with adinkra stamps and dyes	4	40	6	2.04	.449
Total				M =1.66	SD= 0.458

Table 13: Assessment of Students' Skill in Printing
Source: Field Survey, 2019

On the contrary, All the fifty students sampled possess inadequate expertise from the preparation of printing ink and badie dye, designing and printing a piece of Adinkra cloth. Majority (92) of the students are skilful in printing with Adinkra stamps and dye. This means that when the materials are made available them, they are able to apply the skills they have acquired in batik making in printing. It was revealed through interview that teachers themselves do not know how to prepare badie printing ink but they can also print when materials are made available just like the students. Hence, skill gap exists in material preparation as far as printing is concern.

4.12.3. Assessment of Students' Skill in Embroidery and Applique

Embroidery and applique skills	Not skilled	Skilled	Very skilled	Mean (m)	Standard deviation (sd)
Stitching on a fabric	3	17	30	2.54	.613
Demonstration of on-laying and in-laying techniques in applique	20	17	13	1.86	.808
Total				M= 2.2	Sd =0.711

Table 14: Assessment of Students' Skill in Embroidery and Applique
Source: Field Survey, 2019

There were varied submissions with respect to skills acquisition in embroidery and applique as shown in Table 14. Whereas some students were very skilful in embroidery, others were when it comes to demonstration of the applique technique. The teachers shared similar view that embroidery and applique are done manually due to absence of requisite machinery and therefore believe that the skills students have acquired do not match up to standards. They also added that students have the skill to make stitches on their torn dresses but not something that can establish them in terms of job creation.

4.12.4. Assessment of Students' Skill in Knitting and Crocheting

Knitting and Crocheting Skills	Not Skilled	Skilled	Very Skilled	Mean (m)	Standard Deviation (sd)
Construction of knitted and crocheted fabrics	20	25	5	1.70	0.647

Table 15: Assessment of Students' Skill in Knitting and Crocheting
Source: Field Survey, 2019

The results in Table 15 shows that majority of students are in the skilled bracket, i.e., 30 skilled as against 20 unskilled. Though the number of unskilled students is significant and should be addressed, the teachers indicated that crocheting requires only a crocheting pin and yarns to produce items so they believe what with a little effort, students will acquire the needed skills to enable them produce crocheting items such as purses and bags. The production of these items can help students generate income for living after school. In contrast, teachers revealed that proper knitting can only be done on a knitting machine and therefore what they teach students is not enough for the students to practice knitting as a vocation after school.

4.13. Co-curricular Activities

Textiles education requires co-curricular engagements for both teachers and students to get abreast with current practices in the industry to perform up to expectation. At the SHS level such activities that include educational trips and exhibitions are very vital. In light of this the study assessed the extent to which students are exposed to such co-curricular activities.

4.14. Participation in Educational Trips

The study found that educational trips have become impossible due to several reasons such as lack of funds, time constraint and ungranted permission from the heads. However, some of the teachers revealed that students are taken to field trips once a term. This submission was debunked through questionnaire responses by the students where 76%strongly disagreed that they have been going on educational visits every term, 20%disagreed with 4%declining. Even though field trip is an essential tool in teaching and learning since traditional methods are inadequate to challenge learners to explore freely or have first-hand experience on a specific subject (Sitali-Mubanga, Lukonga, & Denuga 2018), it is unfortunate4 out of 5 schools sampled for the study do not embark on educational trips.

4.15. Participation in Art Exhibition

Two of the sampled schools were found with exhibition rooms even though questionnaire responses show 90% majority of the respondents indicating that they have not taken part in any art exhibition. One of the schools uses the exhibition room as a classroom where Textiles lessons. The three other schools were found with no exhibition rooms with the confirmation that they do not participate in an exhibition. Some of the teachers explained that exhibition has become difficult due to lack of resources to enable students to produce works for display while others also attributed it to limited contact hours for the Textiles programme. When students go through a three-year course without participating in an exhibition it becomes a great loss because they are missing out on a whole chapter of the syllabus (Opoku-Asare et al. 2014). This implies that the students in such institutions lack the practicality in planning and organisation of art exhibition which serves as an indispensable tool for artists to showcase and project their works to the art market both locally and internationally.

5. Conclusion and Recommendations

The teaching syllabus for Textiles in the Senior High School is thorough enough to provide the prerequisite knowledge and skills to students who will terminate their education at the end of the three years and would want to practice a vocation. This has the capacity to create more jobs to reduce the unemployment rate in the country. The study revealed that the teaching of textiles at the SHS has been reduced to a theoretical knowledge due to lack of physical resources for effective practical lessons. Also, key stakeholders who are supposed to offer support to the programme have neglected their responsibilities adding to the challenges of the subject area. Co-curricular activities like field trips and artexhibitions that complement effective teaching of the programme have not been given the needed attention. These missing support systems among others issues are impacting negatively on effective delivery and training of textiles students with skills gaps and shortage being the major concerns that need immediate attention.

To ensure that students acquire the requisite skills to practise a vocation after school, it is recommended that, the government establishes centres within the municipalities to serve as teaching facilities to satisfy the schools within that district. The academic calendars of both the University and the Senior High School must be structured in a way that will provide access to the SHS to use the University's facilities during vacation. School authorities must collaborate with Textiles teachers to create E-libraries where students can access information in the absence of GES approved textbooks.

6. References

- i. Adero, J. A. (2012). The Influence of Tangible and Intangible Resources on the Performanceof Public Secondary School in Bondo District, Kenya. University of Nairobi.

- ii. Amponsah, M. O., Milledzi, E. Y., Ampofo, T. E., & Gyambrah, M. (2018). Relationship between Parental Involvement and Academic Performance of Senior High School Students: The Case of Ashanti Mampong Municipality of Ghana. *American Journal of Educational Research*, 6(1), 1–8.
- iii. Antwi-Boadi, E. (2002). Evaluation of the Final Senior Secondary School Visual Art Project/Practical Works: A Case Study of Some Schools in Ashanti Region. Kwame Nkrumah University of Science and Technology.
- iv. Atieno, A. J. (2014). Influence of Teaching and Learning Resources on Students' Performance in Kenya Certificate of Secondary Education in Free Day Secondary Education in Embakasi District, Kenya. University of Nairobi.
- v. Aziz, S., Mahmood, M., & Rehman, Z. (2018). Implementation of CIPP Model for Quality Evaluation at School Level: A Case Study. *Journal of Education and Educational Development*, 5(1).
- vi. Bruce-Amartey, E. J. (2012). The Impact of the Gradual Decline of the Ghanaian Textile Industry on Textile Education in Ghana. University of Education, Winneba.
- vii. Business dictionary. (2019). support system. Retrieved January 9, 2019, from www.businessdictionary.com/definition/what-is-support-system/
- viii. CRDD. (2010). TEACHING SYLLABUS FOR TEXTILES. Accra.
- ix. Edglossary. (2013). Academic Support. Retrieved September 10, 2019, from Education reform website: <https://www.edglossary.org/academics/Academic-support-definition>
- x. Grant, R. M. (2002). *Contemporary Strategic Analysis* (4th Editio). Boston: Wiley and Sons, Inc.
- xi. GSP. (2016). Academic Support: Interventions and Extensions. Retrieved January 16, 2019, from https://www.greatschoolspartnership.org/.../GSP_Academic_Support_Policy_Exemplar_August_2016.docs
- xii. Harness, J. (2018). Definition of Tangible Resources. Retrieved March 17, 2019, from bizfluent website: <https://bizfluent.com/info-8127118-definition-tangible-resources.html>
- xiii. Heathfield, S. M. (2018). what is a human resource. Retrieved September 20, 2018, from <https://www.thebalancecareers.com>
- xiv. Howard, E. K. (2013). Challenges and Prospects of Selected Large-Scale Textiles Factories in Ghana. Kwame Nkrumah University of Science and Technology.
- xv. Husson. (2018). Student Support System. Retrieved November 26, 2018, from <https://www.husson.edu/southern-maine>
- xvi. Ifeanyichuku, U. J. (2013). Availability, Adequacy and Utilization of Resources for Effective Teaching of Physical Education in Secondary Schools in Enugu State. University of Nigeria, Nsukka.
- xvii. Jonathan, O. C., Nzeadibe, A. C., & Nzeadibe, C. (2014). Availability and Utilization of Educational Resources in Selected Rural Communities of Enugu State: Implications for Achieving Universal Primary Education of Millennium Development. *Educational Research International*, 3(1), 15–24.
- xviii. Kapinga, O. . (2017). Assessment of School Facilities and Resources in the Context of Fee Free Basic Education in Tanzania. *International Journal of Education and Research*, 5(6), 93–102.
- xix. Laboneexpress. (2015). Functions of District Assemblies You Should Know. Retrieved June 12, 2019, from Laboneexpress.com website: https://laboneexpress-com.cdn.ampproject.org/v/s/laboneexpress.com/2015/08/funtions-of-district-assemblies/?amp_js_v_a2&_gsa_1&&usqp_mq331AQDoAEKreferrer=https%253A%25F%252Fwww.google.com&_tf-From%25
- xx. Moswela, B. (2014). Students' Academic Achievement: Whose Responsibility and Accountability? *International Journal of Business and Social Science*, 5(10), 46–57.
- xxi. Murphy, B. C. (2019). How do tangible and intangible assets differ? Retrieved July 31, 2019, from Investopedia website: <https://www.investopedia.com/ask/answers/012815/what-difference-between-tangible-and-intangible-assets.asp>
- xxii. Okai-Mensah, C. K. (2015). The State of Textiles Education in Senior High Schools in the Greater Accra Region, Ghana. Kwame Nkrumah University of Science and Technology.
- xxiii. Opoku-Asare, N. A., Agbenatoo, W. G., & Degraft-Johnson, K. G. (2014). Instructional Strategies, Institutional Support and Student Achievement in General Knowledge in Art: Implications for Visual Arts Education in Ghana. *Journal of Education and Practice*, 5(21), 1–14.
- xxiv. Opoku-Asare, N. A., & Siaw, O. A. (2016). Curricula and Inferential Factors That Affect Student Achievement in Rural, Urban, and Peri-Urban Senior High Schools in Ghana: Evidence From the Visual Arts Program. SAGE Publications, 1–13.
- xxv. Sintim, D. M. (2008). Comparative Study of Teaching and Learning of Textiles in Selected Senior High Schools and Vocational Institutions in the Eastern Region of Ghana. Kwame Nkrumah University of Science and Technology.
- xxvi. Sitali-Mubanga, N. G., Lukonga, L. R., & Denuga, D. D. (2018). Effects of Lack of Field Trips on Learner's Performance in Social Studies at Primary School. *International Journal of Education*, 10(2), 61–73.
- xxvii. Stufflebeam, L. D. (2011). CIPP Model (Context, Input, Process, Product). In S. Mathison (Ed.), *Encyclopedia of Evaluation* (pp. 61–65). Thousand Oaks: SAGE Publications Inc.
- xxviii. Usman, Y. D. (2016). Educational Resources: An integral Component for Effective xxx. School Administrationn in Nigeria. *Research on Humanities and Social Sciences*, 6(13).

- xxix. xxxi. Vocabulary. (2018). Support System. Retrieved January 10, 2019, from <https://www.vocabulary.com/dictionary/support system>
- xxx. xxxii. Warju, W. (2016). Educational Program Evaluation using CIPP Model. *Innovation of Vocational Technology Education*, 1, 36–42.
- xxxi. xxxiii. Yalo, I., Arshad, R., & Salleh, I. (2016). Education Stakeholder's Constraints in Policy Decisions for Effective Policy Implementation in Nigeria. *British Journal of Education, Society & Behavioural Science*, 14(1), 1–12.
- xxxii. xxxiv. Zhang, G., Zeller, N., Griffith, R., Metcalf, D., Williams, J., Shea, C., & Misulis, K. (2011). Using the Context, Input, Process, and Product Evaluation Model (CIPP) as a Comprehensive Framework to Guide the Planning, Implementation, and Assessment of Service-learning Programs. *Journal of Higher Education Outreach and Engagement*, 5(4), 57–83.