UNIVERSITY OF EDUCATION, WINNEBA

COLLEGE OF TECHNOLOGY EDUCATION, KUMASI

TEACHING AND PROMOTION CREATIVITY IN SEWING AMONG VOCATIONAL SKILLS STUDENTS OF FOUR COLLEGES OF EDUCATION IN THE ASHANTI REGION OF GHANA

VIDA ADZO AMEGBANU

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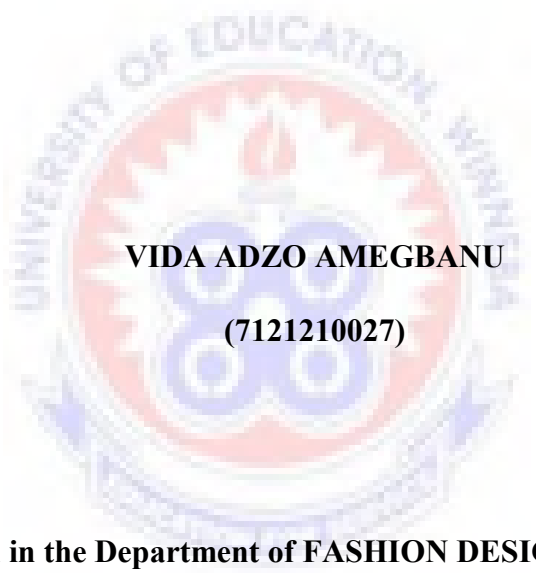

VIDA ADZO AMEGBANU

(7121210027)

A Dissertation in the Department of FASHION DESIGN AND TEXTILES EDUCATION, Faculty of VOCATIONAL EDUCATION, submitted to the School of Graduate Studies, University of Education, Winneba in partial fulfillment of the requirements for the award of Master of Technology Education (Fashion Design and Textiles) Degree.

DECEMBER, 2016

DECLARATION

STUDENT'S DECLARATION

I, **Vida Adzo Amegbanu**, declare that this dissertation, with the exception of quotations and references contained in published work which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

SIGNATURE …….

DATE ……

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: **DR. DANIEL KWABENA DANSO**

SIGNATURE ……..

DATE ……

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DEDICATION

This dissertation is dedicated to my family for their contributions toward my second degree.

TABLE OF CONTENTS

LIST OF TABLES

ABSTRACT

This study surveys teaching and promotion of creativity in sewing among Vocational Skills students in the Colleges of Education in the Ashanti Region of Ghana. The study used descriptive survey design because of its relevance to the study. Simple random sampling technique was used to select 120 students from four Colleges of Education and eight tutors who were purposively sampled from the four Colleges of Education for the study. Two sets of self-designed questionnaires were used to collect data from both students and tutors. The data collected with both questionnaires were analysed using SPSS, version 16.0 and descriptive statistics in a form of frequencies and percentages were computed. The computed results were presented using tabular data format for discussions in chapter four. The findings of the study revealed that most of the tutors perceived that majority of their students display original ideas for product development, fluent in idea generation and development, experiment with ideas and have a good sense of humour. The study also showed that the major challenges of both tutors and students were that tutors do not create an environment free of criticisms to enable students to actively participate in classroom activities. Tutors do not teach with enough Teaching-Learning Materials (TLMs) during instruction period. Both tutors and students suggested that provision of teaching-learning materials, engaging students in practical activities and use of field trips can help students to develop their creative abilities and potentials to the fullest. It must be concluded that the elaborate detail and intricate of dressmaking/sewing required an enormous amount of painstaking and creativity. It is recommended that for the students to develop their creativity to their maximum there is the need for materials to be provided to enable the students to engage in practical activities and assignments.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Learning to sew can be an enjoyable, fun (Blood, 2006), and creative (Schofield-Tomschin, 1999) process. Creating something from a piece of cloth, can be empowering (Clover, 2004; Gordon, 2005) and, especially in a responsive classroom, can build awareness of the importance and meaning of textiles in everyday life (Peterat, 1999). Werhan, Buckland and Vollmer (2004) suggested that even within the field of family and consumer sciences there is a stigma in learning to sew. Some educators consider that these classes are designed to teach outdated skills of homemaking and reinforce traditional female roles, while other educators regard the students who are learning sewing skills to be less academically inclined, of lower intelligence, or of a low social class. With so many Johnson and Wilson (2005) did not include sewing as a focus of handcrafters when looking at motivational factors among contemporary handcrafters. They did include an example of one participant's recollections of children and grandchildren remembering special dresses she had made for them in the past, and specifically noted in another example, "…my mother always sang or hummed when she was sewing, and my daughter remembers sitting on her lap. Buckland, Leslie, and Jennings-Rentenaar (2009) considered sewing as an important part of the needle arts in a hundred-year history of family and consumer sciences. They noted the continual criticism of inclusion of this area by home economists/family and consumer scientists in the same field of study, who generally recognized the value and benefits of sewing in curricula. Buckland *et al*. (2009) understood the notion that sewing could be considered a vocation

and belonged solely in trade schools, but they also wondered if the difficulty of assessing the aesthetic nature of sewing helped to push it to the margins of this field.

Peterat (1999) maintained that textiles, the medium used in apparel construction /sewing laboratories are a pervasive part of life. Textiles influence people on multiple levels. On a personal level they encase the body, yet they also are part of a public sphere in galleries or museums or waving as banners (Bachmann & Scheuling, 2002). Textiles are so much a part of each person's daily life that they may have moved into the marginal realm for scholars, yet descriptions invoking fabric or textiles are numerous. "Indeed, cloth metaphors echo from many parts of the world, today and in the past. Social scientists and laypersons regularly describe society as fabric, woven or knit together" (Schneider & Weiner, 1999, p. 2).

Lambert (2008) posited that brain chemicals that would reduce depression were released through specific hand activities such as needle arts. Further investigation of Lambert's work suggested that activities that activate both hands, such as sewing, activate extensive circuits throughout both hemispheres of the brain and also allow the brain to access positive emotions which act as buffers against depression. Thus, the introduction of sewing in curricula for those who are seeking degrees in the fields of fashion and vocational education in the Colleges of Education is not out of place.

According to Eisner (2002) 'Imagination is more important than knowledge. For knowledge is limited while imagination embraces the whole world' (p. 25). This assertion of Eisner pointed out the essence of creativity in the world and the sewing industry in particular. Since earliest times when humans drew images on the walls of the caves, the arts of creating have been our means of recording our human experience and of making

sense of our world. The arts of creating give expression to our understanding, our imagination and our creativity. As the world we inhabit becomes smaller, faster and more competitive, these qualities are increasingly important. The arts of creating are an integral part of a complete, successful and high-quality education. Study of the arts of creativity enhances young people's intellectual, personal and social development.

A comprehensive creativity art education provides a rich and engaging curriculum that develops students' abilities to think, reason and understand the world and its cultures. It offers pupils opportunities to respond, perform, and create in the arts. The creativity art instills in our students the habits of mind that last a lifetime: analytical skills, the ability to solve problems, perseverance and a drive for excellence. The creative skills students develop through the creativity art carry them toward new ideas, new experiences and new challenges, as well as offering personal satisfaction. This is the intrinsic value of the creativity arts and it should not be underestimated.

Schools and society must develop our students to become happy, well-adjusted citizens, rather than students who can just pass a test and get through school. We must ensure that our students can think creatively, skillfully, and out of school. The creativity arts are a vital part of doing this and of ensuring that every student can achieve his or her potential and contribute fully to our society.

1.2 Statement of the Problem

A creative curriculum offers students plenty of opportunities for creative behaviour. Such a curriculum will call for original work, independent learning, self-initiated projects, and experimentation. Using curriculum materials that provide

progressive warm-up experiences, procedures that permit one thing to lead to another, and activities that recognise and reward creative thinking makes it easier for teachers to provide opportunities for creative learning. Students have a seemingly endless supply of creative energy. It shows up in their quirky impromptu classroom activities, in their imaginative play, and in their innate ability to make something out of anything. However, research on creativity pointed to a need for these skills to be taught during lessons particularly in sewing. It appears that when students reached higher institutions of education, their level of creativity is evident and these must be harnessed to their full potential in subjects such as sewing in clothing and textiles studied in Vocational skills in Colleges of Education. Today's students must be given the chance to develop their creativity to the fullest extent possible; not only for the benefit of their own future but also for the communities we all inhabit. The surest way to achieve this feat is through proper tuition in schools and colleges under formal education, especially with teacher trainees who will be future educators of our children.

The focus of education must be on creating people who are capable of thinking and doing new things, not simply repeating what past generations have done (Fisher, 1990). We cannot limit people to doing only what they have done in the past if they are to be equipped for a world of challenge and change. As Bennis (2009) asserted "There are two ways of being creative. One can sing and dance. Or one can create an environment in which singers and dancers flourish."

The study of outcomes of apparel construction/sewing laboratories has not been undertaken prior to this research. Blood's (2006) study found that Csikszentmihalyi (1999) theory of flow may be useful in the clothing and textile area because participants

in her study experienced greater flow experiences as they continued their involvement in non-industrial textile production. However, no studies measuring specific outcomes of classes in creativity in apparel construction/sewing laboratories have been found, hence the need for the present study.

1.3 Objectives

This study was an exploratory attempt to survey the teaching and promotion of creativity in sewing among Vocational Skills students in four Colleges of Education in the Ashanti Region of Ghana. Specifically, this study sought to:

1. Examine tutors' perception of sewing and creative abilities of their Vocational Studies students in the Colleges of Education.
2. Find out the challenges of both tutors and students in the teaching and learning of sewing as part of the Vocational Skills programme in the Colleges of Education.
3. Identify various strategies to use for the promotion of creativity among students during sewing lessons in the study area.

1.4 Research Questions

The study was guided by the following research questions which provided direction for the study:

1. What perceptions do tutors have about sewing and creative abilities of their students who are pursuing Vocational Skill programme in the Colleges of Education?

2. What challenges do both tutors and students face in the teaching and learning of sewing as part of the Vocational Skills programme in the Colleges of Education?
3. How can creativity in sewing be promoted among Vocational Skill students in the Colleges of Education?

1.5 Significance of the Study

This study provides support for educators who desire to engage students in the learning process. No scales to measure the levels of the affective domain, perceived self-efficacy, level of creativity and comfort exist in the area of students' apparel construction /sewing laboratory classes, and this exploratory research is an initial attempt to develop them. Isen (2001) indicated that a positive affect enhanced cognitive functioning. Bandura (1994) linked a positive effect to increased perceived self-efficacy, which Zimmerman, Bandura, and Martinez-Pons, (1992) used to predict academic success. Research also suggested that adult learning and creativity is enhanced within a comfortable setting (Knowles, *et al*., 2005) and when students express a feeling of community (Bogue, 2002; McKinney *et al.,* 2006). A more complete perspective of the learning in apparel construction/sewing laboratory type classes can provide insight into other creativity in the learning environments.

This research will contribute to the field of family and consumer sciences by providing a more complete perspective of students' apparel construction/sewing laboratory classes, including the impact on and value for the individuals enrolled into the Vocational Skill programme of the Colleges of Education. This exploratory research is an initial attempt to create a scale to measure the affective domain, self-efficacy, level of

creativity among the students involved in apparel construction/sewing laboratory classes. The results of this study should help educators to understand better the dynamics of this type of course and provide opportunities to engage students in learning endeavors. A comfortable atmosphere (Knowles, *et al.,* 2005) for students may help educators build a sense of community (Bogue, 2002; McKinney *et al.,* 2006) and findings that enhanced creativity, as well as additional affective and self efficacy outcomes as a result. Moreover, this study deals with a medium that can contribute meaning and enjoyment (Csikszentmihalyi, 1999) to students' lives, through memories, aesthetic, and hedonic experiences.

1.6 Delimitation of the Study

This study was delimited to tutors and students of four Colleges of Education in the Ashanti Region of Ghana. The study was related to sewing components of the Vocational Skills curriculum of the Colleges of Education. Food and Nutritional components as well as Home Management part of the Vocational skill curriculum of the Colleges of Education did not form part of this study.

1.7 Limitations

This was a fairly small sample. The instrument was administered in four Colleges of Education using 120 students and eight tutors. This will limit the external validity and ability to generalize to the rest of the Colleges of Education pursuing sewing. The instrument was easy to administer; however, it was time consuming because of travel to each college. Timing was difficult because classes at different colleges were different, if not the same times, so to be able to administer the instrument at the end of the day for all

institutions posed scheduling challenges. The use of a structured questionnaire was another challenge. Items not captured but relevant to the study were lost, which could have provided another dimensions to the study. The development of the instruments under my supervisor minimized these challenges and made the data collected to be adequate and reliable. This made the results of the study to be objective for generalization.

1.8 Definition of Terms

To facilitate understanding, the following definitions are provided:

Apparel construction/sewing laboratory classes: These terms are used as synonyms as there are a variety of titles for classes in this area, including clothing construction and fashion sewing. Piecing fabric together by sewing to create something new, such as a garment, takes place in these classes (Buckland *et al*., 2009).

Creativity: "The skill of bringing about something new and valuable" (Walker, 1990, p. 483- 484).

Flow: An experience (frequently a creative activity) that is "so engrossing and enjoyable that it is…worth doing for its own sake even though it may have no consequence outside itself." (Csikszentmihalyi, 1999, p. 824).

Hedonic: "of, relating to, or characterized by pleasure"

Peer learning: "The acquisition of knowledge and skill through active helping and supporting among status equals or matched companions" (Topping, 2005, p. 631).

Perceived self-efficacy: "It is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura, 1992, p. 122).

1.9 Organisation of the Study

The study was organized into five chapters. The first chapter of the study presents the introductory part of the study, under which the background to the study, statement of the problem and the purpose of the study are given. Also included in the introductory chapter are the research questions, significance of the study, delimitations, definition of terms and organisation of the study.

Chapter Two discusses the literature related to the study. The review involved empirical studies and theoretical framework of the problem under study. The third chapter describes the methodology used in the study. Specifically, the research design, the research instruments, the piloting procedure, the procedure for data collection and the data analysis were discussed.

In chapter Four, the results and discussions of the findings are presented. The final chapter, Chapter Five, presents the summary of the study and findings as well as the relevant conclusions. Recommendations based on the research findings as well as for further study are also presented in the chapter.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

Chapter Two reviews literatures which are relevant to the study.

The review of related literature to the study focuses on the following areas:

a. Theoretical Framework of the Study
   i. Adult Learning Theorists
   ii. Csikszentmihalyi's Flow Theory
b. Empirical Literature Review
   i. Concept of sewing
   ii. Historic Overview: Home Economics Movement
   iii. Specific Levels of the Affective Domain
   iv. Aesthetic Experiences as a Part of Affective Domain
   v. Creativity
   vi. Therapeutic Nature of Creativity
   vii. Significance and Meaning of Textiles
   viii. Importance of Comfort in a creative Classroom
   ix. Creativity
   x. Attributes of Creativity

2.2 Theoretical Framework of the Study

This study is conducted based on two theories: Adult Learning Theory and Csikszentmihalyi's Flow Theory. These theories are concentrated on the learning process of adults and their ability to be creative in their work and for this study in sewing in Colleges of Education.

2.2.1 Adult Learning Theory

In the 1970s, Knowles wrote about andragogy, "the art and science of helping adults learn" (Knowles *et al*., 2005, p. 61) and set forth assumptions about how adults learn. The assumptions did not specifically address the affective domain or students' perceived self-efficacy, but they continue to provide a useful perspective for educators. Knowles' assumptions were: (a) adults need to be made aware of why they need to learn, so educators need to raise the consciousness of the learners; (b) adults are impacted by their previous experiences of educational systems and their other lifetime experiences, requiring educators to tap into those experiences as a springboard to promote learning; (c) adults are more focused upon their own personal situations and are more ready to learn when educators take this into account; and (d) adults orient their learning around life or problems instead of subjects, so educators need to make subjects relevant to the students by shifting from a subject orientation to a life orientation Knowles *et al*. (2005) suggested that flexible, comfortable, informal, and nonthreatening settings would provide ideal situations for adult learning. An environment that is conducive for learning is an important aspect of the process.

Peterat (1999) may have related this notion of environment to a responsive classroom. Other scholars (Cohen, 2006; Cohen, McCabe, Michelli, & Pickeral, 2009; Cohen & Pickeral, 2007) refer to "quality and character of school life" as class climate or environment (Cohen *et al*., 2009). Cohen and Pickeral (2007) associated a positive school climate as a predictor of academic achievement. A positive climate would include "norms, values, and expectations that support people feeling socially, emotionally and physically safe" (Cohen *et al*., 2009). While Cohen and his colleagues were focused on K-12 classrooms, these same kinds of descriptors can lead to a feeling of community in other educational settings. McKinney, McKinney, Franiuk and Schweitzer (2006) used the college classroom to explore the "sense of community" with the variables of connection, participation, safety, support, belonging, and empowerment to create. They found a significant positive relationship between the sense of community and student performance.

Knowles *et al*. (2005) was influenced by Dewey's (1938/1997) firm belief that experience should be a part of progressive education. Knowles advocated that educators incorporate the experiences of adult learners in educational settings. Dewey acknowledged that not all experiences were equal in terms of education. However, Dewey did see one part of an educator's role as to provide experiences as well as environments conducive to learning. Dewey also influenced Kolb (1994) regarding the importance of experiential learning. While Dewey sought to integrate the experience into the process of learning Kolb saw the experience as the learning process (Kolb, 1994).

Kolb provided "a working definition of learning" as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1994, p. 38). All

environments, including those outside the academic community, provide opportunities for experiences and learning. According to Kolb, learning begins with an experience followed by a reflection upon the experience by the learner. Experiences, with reflection, help humans learn and re-learn the knowledge they construct, providing a way to adapt, make decisions, and solve problems.

Knowledge is not "an independent entity to be acquired or transmitted" (Kolb, 1994). Similarly, Cross (1998) described a traditional view of knowledge as an external reality with a learner tasked to discover and use it as a foundation (as occurs in a traditional classroom), versus a constructionist's view of knowledge that the learner actively constructs to make sense of his/her environment (as occurs in a learning community). Both Kolb and Cross accepted that knowledge was constructed by the learner. Kolb focused on the process, not the outcome, and saw the construction of knowledge as a transformation of an individual experience in a social world while Cross discussed the construction of knowledge as an outcome of a social process that occurs in a learning community.

Cross (1998) defined a learning community as "groups of people engaged in intellectual interaction for the purpose of learning" (p. 4). This definition is broad enough to include peer learning, whereby students of equal status "help each other to learn" and learn "themselves by doing so" (Topping, 2005, p. 631). The engagement among students may lead to a "trusting relationship" facilitating self disclosure or misconception and subsequent correction (Topping, 2005). Affective components of trust and enthusiasm may play a part in this interaction.

Knud Illeris' adult learning theory was used as a foundation to understand the learning process that occurs in the apparel construction/sewing laboratory classroom. Illeris (2003) proposed that a different perspective on education encourages educators to pay attention to the outcomes of learning. Illeris (2003) was interested in how adults learn and do not learn and the concept of lifelong learning. He observed that lifelong learning is an important factor "in the global competition between nations and companies" (p. 396).

While Bloom and his associates (Krathwohl *et al*., 1994) built a hierarchy of steps of concepts with his taxonomies, Illeris (2003a, 2003b) built an inter-related model of ideas that were based upon the theories of many others. Illeris made a point to draw in previous learning theorists, because he credited his ideas to their theories. In essence, Illeris (2003a, 2002b) began with a model that looked like a capital letter "T." Illeris explained his model as two parts of learning that interact with one another. The first part of learning relates to a "specific individual with a personal life history" (Illeris, 2003b) and is represented by the horizontal part of the T, with two equal dimensions (cognitive and emotional) on either side of the top of the (Illeris, 2003a). Knowledge within these two dimensions is acquired and elaborated upon through an "internal psychological process" (Illeris, 2003a). The second part of his learning theory is symbolized by the vertical part of the T and represents "an external interaction process between the learner and his or her social, cultural or material environment" (Illeris, 2003a, p. 398). The social dimension connects the individual with others in the environment and society. It recognizes "the learner as a human being in general, as a member of the present late modern globalised market and risk society" (Illeris, 2003b, p. 169). This model,

particularly the internal acquisition aspect, is consistent with Bloom's Taxonomy which, about six decades earlier, recognized that cognitive learning is only one of several components of learning, the others being affective and psychomotor.

The internal dimensions Illeris (2003a, 2003b) outlined, cognition and emotion, correspond with the cognitive and affective dimensions outlined by Krathwohl *et al*. (1994 cited in Lewis-Goldstein, 2010). Illeris defined emotional as "feelings and motivation" (2003a) and attitudes (2003b) which is consistent with the way the term "affective dimension" was used by Krathwohl *et al*. (1994 as quoted by Lewis-Goldstein, 2010). Both Illeris (2003a; 2003b) and Krathwohl *et al*. explored connections between the cognitive and affective dimensions. The third, or psychomotor, dimension that Krathwohl *et al*. (1994 quoted in Lewis-Goldstein, 2010) explored may be more appropriate for younger learners and was not addressed by Illeris. Illeris (2003a) had a focus on adults, for whom the social dimension of communication and cooperation is fundamental.

For Illeris (2003a, 2003b), the acquisition of learning required prior learning in that new learning links to previous experiences. Knowles had not required prior learning, but acknowledged that prior learning and life experiences needed to be linked to new educational experiences of the adult learner (Knowles *et al*., 2005). The cognition aspect of Illeris' model represents knowledge or skills that build up the understanding, meanings, and abilities of the learner, rendering the learner functional, or, in other words, the "personal functionality" that one uses to deal with the challenges of life (Illeris, 2003a). The emotion aspect of his model encompasses feelings and motivations and has

an ultimate goal of securing mental balance and developing "personal sensibility" (2003a).

Despite the inclusion of the equivalent of the affective domain in Illeris' (2003a, 2003b) adult learning theory, other areas such as creativity and the aesthetic dimensions regarding adult learning are not fully explored. Illeris (2003a) did mention creativity as a desirable outcome of learning. Kolb did consider a creative process as a part of his "holistic adaptive process" that also included decision making and problem solving (Kolb, 1994). Regarding adult learning Kucukaydin (2008) noted that: Even though the adult learning literature provides a wide variety of theories, concepts, and models to help us better understand adult learning, we still do not know much about many aspects of adult learning. One of those unknown aspects is the aesthetic dimension and its role in adult learning and development.

Understanding learning theory as an inclusive whole is similar to a discussion Csikszentmihalyi (1999) put forth regarding understanding creativity. Efforts to simplify sometimes overlook other important aspects. One may understand "that it is the spark that is responsible for the fire. The spark is necessary, but without air and tinder there would be no flame" (Csikszentmihalyi, 1999).

Using Illeris' model of learning theory, a sewing laboratory provides for the internal acquisition of both cognitive and emotional (affective) domains through experience. Additionally, a sewing laboratory supplies an arena for interactions among individuals, which is the second, holistic component of Illeris' model. While experience is an important factor and a major focus in apparel construction/sewing laboratory classes, attention to the affective domain as well as the cognitive domain may more

completely describe the sewing learning laboratory. The context incorporates an emotional perspective through the creative and aesthetic nature of the sewing experience. The social aspect of a laboratory-type class is an important bridge between what occurs in and outside of an academic classroom.

Women who sew experienced “a significant drop in heart rate, blood pressure, and perspiration rate compared with women who participated in other leisure activities” (Swartzberg, 1995). La Ferta (2004) quoted an interior design show room manager who enrolled in a sewing class to relieve stress. "Working with my hands is therapeutic," he said. "It's absolutely soothing" (La Ferta, 2004).

2.2.2 Csikszentmihalyi’s Flow Theory

Csikszentmihalyi (1999) noted that artists, when faced with a challenging task, exhibited total involvement in their work. They went into a different state of consciousness during the process of their creative endeavors. The feelings did not happen during leisure, but occurred when the artists pushed their mental and physical limits while challenged by an activity. Csikszentmihalyi called the experience, “flow” because people expressed a feeling of being “carried away by a current.” Csikszentmihalyi (1999) continued: It turns out that when challenges are high and personal skills are used to the utmost, we experience this rare state of consciousness. The first symptom of flow is a narrowing of attention on a clearly defined goal. We feel involved, concentrated, absorbed. We know what must be done, and we get immediate feedback as to how well we are doing.

It is reasonable to think that some students in beginning apparel construction/sewing laboratory classes may exhibit feelings of being absorbed in their work. In 1975 Csikszentmihalyi wrote about a "flow pattern in everyday life" (1999) or "micro flow activities" in which everyday occurrences were related to what Dewey called completed experiences. In this study he specifically noted sewing as in the creative category (1999). Csikszentmihalyi (1999) also described amateurs who kept their goal in sight and experienced the joy of flow, increasing their quality of life. Additionally, experiences may add meaning to a person's life. "An experience is meaningful, emphasis original, when it is related positively to a person's goals. Life has meaning when we have a purpose that justifies our strivings, and when experience is ordered" (Csikszentmihalyi, 1999, p. 244).

2.3 Empiricial Literature Review

2.3.1 Concept and History of Sewing

Few studies have been conducted related to sewing education. Two researchers explored motivations for taking sewing classes (Drohan, 1997; Lutz, 1957 cited in Lewis-Goldstein, 2010), and one (Ostapovitch, 1961 as cited in Lewis-Goldstein, 2010) studied motives for home sewing, based on several studies done in the 1950s. Both Connolly (1994) and Fernandez (1997) took a historical look at home sewing in the late nineteenth century. Blood's (2006) study found that Csikszentmihalyi's theory of flow may be useful in the clothing and textile area because participants in her study experienced greater flow experiences as they continued their involvement in non-industrial textile production. However, no studies measuring specific outcomes of classes in apparel construction/sewing laboratories have been found.

Learning how to sew is a topic that has been both enthusiastically discussed and hotly debated. The image of sewing machines in a classroom has been associated with negative feelings toward the field of home economics/family and consumer sciences (FCS), suggesting to others that the field is solely comprised of "stitching and stirring" (East, 2000; Erwin, Moran III, & McInnis, 1996). Considering clothing a basic human need (Nygren, 1999), along with food and shelter, is common. However, some authors express that clothing does not qualify as a basic need, but rather that it specifically satisfies basic physical and psychosocial needs (Pederson, 2009).

Sewing has also been viewed from feminist perspectives, with opinions ranging from confinement of women to a low-status gender role (Connolly, 1994) to empowerment. Clover (2005) stated: "Empowering women to speak out is premised upon finding media with which they are comfortable and which offer ways to express a diversity of feelings and perceptions". In looking for an alternate strategy for emancipation, Foss (1996) moved inward to "re-source" or find another source for spiritual energy after the completion of her teaching responsibilities each academic year. She carefully explained the several steps of her sewing as a ritual. First in the ritual was entering a "marginalized space" where joy and cooperation were found (a fabric store filled with colors and textures). "Cleansing" or purification occurred as she made space for her sewing and preshrinking of fabric, and "demarcation of boundaries" took place as she brought out sewing equipment and created a space to sew. "Working magic" indicated that she engaged in the work that realized the purpose of the ritual, which was the sewing and creation of a garment. During this time she experienced what Csikszentmihalyi (1999) described as flow. As she transitioned to return by cleaning up,

she was then ready to publically display the garment by wearing it as an "emblematic display." The garment symbolized her change.

In a similar way, Gordon (2005) explored home sewing as "gendered labour" but "also as an escape from drudgery and a tool for self-definition". She noted that the garments women created were admired outside of the household, thus they were a cause for pride and satisfaction as well as a reinforcement of the value of thrift. Nonetheless, clothing manufacture was not solely within the domain of the women of a household, especially as people increasingly became consumers of mass-produced fashion.

Sewing is typically required in curricula for those who are seeking degrees in the fields of fashion and Family Consumer Science education. Within California, and other states as well, it has been a part of FCS and fashion programs in community colleges, state universities, and a variety of private institutions. Television shows that revolve around fashion design, such as "Project Runway" and those that revolve around do it-yourself home decorating, such as "Trading Spaces," have spurred interest in sewing classes (Cox, 2005; Hamilton & Hylton, 2006).

Sewing schools had been in existence prior to the launching of home economics as a field of study. Formalized sewing classes went hand-in-hand with the simultaneous development of the field of home economics. Home economics reflected American ideology and values of educational opportunities for women as well as nineteenth century ideology and values that shaped social roles for women (Helvenston & Bubolz, 1999). Mary Urie Watson, an early home economist, addressed the question of the value of sewing in 1901 (as cited in DeZwart, 1993):

> Properly taught, sewing engenders a habit of observation, a knowledge of the difference between accuracy and vagueness, which wrought into the mind remain there as a lifelong possession. It confers precision, because, if you are doing a thing, you must do it definitely right or definitely wrong. It gives honesty, for when you express yourself by making things, and not by using words, it becomes impossible to dissimulate your vagueness or ignorance by ambiguity.

DeZwart (1993) considered the "honesty" of sewing that Watson touted to be sewing's true value that is still appreciated today. Mary Woolman had written an instruction manual for sewing teachers in 1893. In the revised fifth edition in 1914, she indicated that sewing would be "of life-long use to the children" and may serve "as an effective basis for vocational life" (Woolman, 1914 as cited in Lewis- Goldstein, 2010). Additionally, the task of learning to sew would increase the ability of a student to help others. Woolman envisioned a student who "shows her connection of her work with the world's industrial interests, and makes her sympathetic with, and appreciative of, the army of those who work" (Woolman, 1914 as quoted by Lewis-Goldstein, 2010). Sewing would "add to the mental and moral strength of children" (Woolman, 1914 as cited by Lewis-Goldstein, 2010) and should bring out the creativity of the students as well. Lewis-Goldstein (2010) said that sewing included the study of textiles, conditions of the factories, design, and knowledge of sewing done in other cultures.

Historically, courses in apparel construction/sewing have fostered critical thinking. French (1917) quoted in Lewis-Goldstein (2010) followed a philosophy of teaching similar to critical thinking and encouraged interdisciplinary thinking. She

warned that simply teaching "seams and garments" was a mistake. The subject of clothing relates to almost every other subject taught, such as history (how political conditions were an influence on fashion), physics (how sewing machines worked), chemistry (how fabric can protect against heat or cold, microscopic examination of fibers, textile testing), physiology (how the body moves in clothes), as well as drawing and design.

Brown (1923) as cited in Lewis-Goldstein (2010) questioned the justification of clothing construction classes. In the early 1920s, as the home economics movement was gaining momentum, the value of apparel construction continued to revolve around cost savings for the individual. Only 50% of the women surveyed indicated that they enjoyed making clothing (Brown, 1923). A short time later, Potter (1926 cited in Lewis-Goldstein, 2010) presented the results of a questionnaire completed by high school girls, which revealed that clothing selection was becoming more relevant to them than the skills of construction. Potter also indicated that rural women were primarily constructing "house dresses and undergarments" (Potter 1926) while urban women were constructing about half of their dresses and purchasing the other half. She proposed decreasing the skills portion of their classes and increasing "training in appreciation and consumer's judgment" (1926, p. 596 cited in Lewis-Goldstein, 2010). Much later, Lutz (1958, p. 113 as cited in Lewis-Goldstein, 2010) surveyed Illinois women regarding their reasons for enrolling in "adult classes in clothing." Her findings indicated that women were more likely to sew for economic value and felt pressure to learn traditional homemaking skills more than sew for pleasure, creative expression, or the finished product.

Anspach (1999) reviewed the research that had been done in the clothing field in home economics from 1925 to 1958. She found that the research was consumer-oriented and centered on "design, selection, economics and management, home sewing, market policies, and maintenance" (1999). In the 1950s American women exercised their "creative function as consumers' within a "larger role as transmitter of the culture" (Anspach, 1999) and saw fashion change as a manifestation of a "large middle class" with a "rich culture," with clothing being the "symbol of taste"(1999).

According to Johnson (2000), who was reporting on "a new direction in clothing construction," home sewing in the 1990s was at an "all-time high", and now women were sewing to express their creativity and individuality. Johnson's perspective as a home economist in business was to sell new sewing machines, new fabrics, and new patterns that had simplified the techniques in such a way that any woman could become "a skilled artisan" (Johnson, 2000). She stressed that practical, not theoretical, knowledge was vital for the home economist who would be demonstrating in this field. It appeared that the American woman was retaining her position as a consumer and sewing was sold to her as an activity for leisure and a way to express her individuality and creativity. Werden (2000) supported clothing construction classes in college programme as a basis for further knowledge in creative and technical fields. Also responding to the new direction of the field of home economics in general and the clothing area in particular, Warning (2000), who was the head of the Department of Textiles and Clothing in the College of Home Economics at Iowa State University, called for more research in this area.

In looking at changes in culture related to clothing, she gave an example of the "deep feeling of enjoyment and satisfaction" that occurred when a "mother and daughter,

two people of widely different ages and interests,…planned, selected and purchased materials for and actually created a beautiful garment for the little girl" (Warning, 2000, p. 650). Acknowledging society's changes, she asked what a mother or child might lose if a child's clothes are not made at home and if the losses might be replaced. Research could help answer questions about change and the new direction of the field.

About the same time, Ostapovitch (1991) found that home sewing remained an activity of "high interest" (1991) for the Michigan women she surveyed, who sewed primarily because they enjoyed the activity and because it saved them money. It served as a creative outlet for the women as well. Ostapovitch did find that motivations differed between social status and income levels, as women of lower social status and women in lower income categories cited economic reasons as their primary reason for sewing. Furthermore, she noted that high school clothing construction classes and adult evening classes were the formal sources of training for the women she surveyed.

Loker (1997) revived the discussion about teaching sewing, citing the loss of many clothing construction classes across all levels of education. A review of ready-to-wear costs compared to home-produced garments revealed that ready-to-wear was less expensive at low, medium, and high price points, so economy was no longer a valid argument for teaching these classes. Her arguments for teaching clothing construction classes, besides skill development, included the value of creativity, increased self-esteem, pride in accomplishments, and recognition of the quality of garments.

Peterat (1999) wondered if students who enrolled in courses in textiles and clothing were "limiting their own futures or…accessing an empowering and liberatory force in their lives" (1999). Acknowledging that there had been little research done in the

area of textile studies curriculum, especially in Canada, she examined15 exemplary Canadian cases in her book, *Making Textile Studies Matter*. Peterat found that all cases shared a common concept of being "responsive curriculum" (1999) in that the classroom atmosphere was not dictated by a textbook or exams, but rather a response to "the realities of students' lives" (1999). Peterat sensed an obligation on the part of the teachers to meet the needs and interests of the students. Visibility was another shared concept Peterat discovered.

Some teachers indicated that they must constantly promote and defend their classes or find a way to make the class stand out, because elective classes are frequently marginalized. Many of the classes Peterat investigated were classified as elective or complementary classes, so maintaining enrollment was a challenge. Visibility helped to keep these classes from the marginal realm. Brandes and Garner (1997) made a strong case for teaching clothing construction in high schools because many fashion industry careers require basic construction knowledge. They described that high schools need to prepare students for university classes. Basic concepts such as the grain of the fabric and understanding about how the construction of fabric (types of weaves and knits) influence the drape of a garment prepare students to advance and truly understand garment quality.

While many administrators have a misguided belief that clothing construction classes are teaching outdated skills, the outcome has been university programmes that need to teach remedial skills before continuing on with more complex skills such as computer aided design (Brandes & Garner, 1997). Werhan *et al*. (2004) voiced another concern about removing classes from middle schools and high schools. The potential loss of sewing skills for future teachers in the field would affect teacher preparation. FCS

teachers in Ohio were finding their lack of skills to be a problem. Lee (2002) found discrepancies between the FCS Education National Standards and the perceptions of North Carolina FCS high school teachers about the importance of teaching clothing construction skills in classes in clothing and textiles programmes. The national standards did not put an emphasis on teaching clothing construction skills in the programmes because in today's society "few individuals actually construct their own clothing" (2002, p. 27); however, results of a random survey of North Carolina FCS high school teachers indicated that the teachers placed a high value on teaching clothing construction skills. The reasoning by the teachers was that the most frequently offered second course was clothing design, which relied heavily on knowledge of clothing construction skills. After a thorough review of literature, review of survey results, and general open discussion by FCS state consultants, teacher educators from the state's universities, and secondary FCS teachers, the basic clothing construction skills were retained as a part of teacher competencies. Ward and Lee (2005) assessed the clothing construction skills of teachers in North Carolina and found them adequate with a traditional sewing machine but marginal with a serger. A recommendation to acquire additional training was made, because clothing construction knowledge remains integral for successful employment in the textile and apparel industry.

Montgomery (2006) revisited the question about the usefulness of sewing classes in family and consumer sciences, as most individuals are consumers rather than producers of their clothes. She did not advocate elimination; she proposed a critical-science approach, as opposed to a technical skills approach, in order to realign the course with the current curriculum models. If students only learn sewing skills, they are not

likely to be prepared for their future as a member of a family, community, or society. Using a critical-science approach, the focus of the class would broaden to include practical reasoning and problem solving based on concerns the family, community, or society might have, such as the needs of children in poverty. The class could execute a sewing-based project that meets those needs, thereby gaining some technical skills. The focus of a critical-science based classroom is on collaborative processes by the students, not the expertise of the teacher.

Quilling (2006), a middle school teacher, emphasized a critical-science approach as means of instilling employability skills which transfer beyond school skills such as time management, task analysis, practical reasoning and problem solving. The students gain some technical knowledge and skills as they complete service-learning projects. She acknowledged that students might use the technical skills in their future as they pursue leisure activities.

Recently in the *Journal of Family and Consumer Sciences,* Buckland *et al*. (2009) wrote a 100-year retrospective on needle arts that included sewing. Acknowledging that needle arts articles had been largely missing from the journal, except for cross-cultural studies; they presented arguments for inclusion, including using needle arts as stress reduction. Lambert's theory of depression as a result of limited hand motion in our society was cited. She posits that brain chemicals that would reduce depression were released through specific hand activities such as needle arts. Further investigation of Lambert's work suggested that activities that activate both hands, such as sewing, activate extensive circuits throughout both hemispheres of the brain and also allow the

brain to access positive emotions which act as buffers against depression (Lambert, 2008).

2.3.2 Significance and Meaning of Textiles

Peterat (1999) echoed Schneider and Weiner (1999) who maintained that textiles, the medium used in apparel construction/sewing laboratories, are a pervasive part of life. Textiles influence people on multiple levels. On a personal level they encase the body, yet they also are part of a public sphere in galleries or museums or waving as banners (Bachmann & Scheuling, 2002). DeLong *et al*. (2007) found that memories could be triggered by the sense of touch; both Chinese and U.S. respondents had positive memories of touching clothing items. The comprehension of textiles, they found, was a "two-way process: what we value is a result of what we perceive; what we learn to perceive is what we value" (2007, p. 36). Textiles are so much a part of each person's daily life that they may have moved into the marginal realm for scholars, yet descriptions invoking fabric or textiles are numerous. "Indeed, cloth metaphors echo from many parts of the world, today and in the past. Social scientists and laypersons regularly describe society as fabric, woven or knit together" (Schneider & Weiner, 1999, p. 2). Similarly, Csikszentmihalyi and Rochberg-Halton (1991) indicated that textiles have significance and meaning. In their following explanation, they touch upon the affective nature of the concept:

> When a thing "means something" to someone, it is interpreted in the context of past experiences, either consciously, or unconsciously in the form of habit. The emotion that things evoke is also an interpretation or

> inference, a sign or symbol of one's attitude (Csikszentmihalyi & Rochberg-Halton, 1991, p. 21).

They looked at the interaction with objects related to the development of the self (Csikszentmihalyi & Rochberg-Halton, 1991) and maintained that people chose the type of objects they wish to interact with, sometimes along cultural and gender lines. Items from one's household communicate a sense of "home" (Csikszentmihalyi & Rochberg-Halton, 1991), so families were queried about their feelings about household objects. For females, textiles were among the most frequently named objects; the greater frequency of females compared to males mentioning textile household objects was highly significant (Csikszentmihalyi & Rochberg-Halton, 1991, p. 106). Csikszentmihalyi and Rochberg-Halton saw the significance as supporting the "expressive female roles" that are expected by society (1991, p. 106). Gender roles had permeated the home which is "the most intimate symbolic environment people create to give meaning to their lives" (Csikszentmihalyi & Rochberg-Halton, 1991).

Different phases of the life cycle were part of the study as well. Within three generations, clothes were the "special objects" among the top 15 items mentioned by children. Grandparents mentioned weavings (Csikszentmihalyi & Rochberg- Halton, 1991).

Just as noteworthy as objects that carry meaning is the memory that items have for people. Textile items can evoke memories, as Cox (2005) illustrated in her article about Carol Kelly, the designer for Carol's Creations, who recounted the relationship between her sewing and the memory of her grandmother, Martha:

Carol recalls stories of how Martha would make little-girl dresses for Carol's mother…out of the sacks that carried flour and other dried goods. In Martha's later years, she would cut her great-grandchildren's old clothes into scraps and transform them into quilts with backing. In an unspoken rite of passage, each great-grandchild received one of these brightly patterned comforters before the 91 year-old passed away in 1990. These quilts are a reminder of the southern matriarch's resourcefulness and creativity (Cox, 2005).

Cox's (2005) article exemplifies the finding by Csikszentmihalyi and Rochberg-Halton (1991) that females were more likely than males to link their reasons for selecting certain objects to family significance or memories. Similar to an aesthetic experience, objects may impose "certain qualities on the viewer that create new insights" (Csikszentmihalyi & Rochberg-Halton, 1991, p. 45). The individual "can allow the intrinsic qualities of an object or situation to be fully realized in the interpretation" (1991, 195). Littrell (2000) explained that tourists derived aesthetic pleasure from textile items that provided rich memories, made the owners feel unique, and symbolized the "authentic life" (2000, p. 231) they experienced in a foreign country. As noted, textiles have meaning to individuals and to women especially as a link to memories of other people or places (Csikszentmihalyi & Rochberg-Halton, 1991). Schofield-Tomschin and Littrell (2001) suggested that textile objects had two specific areas of meaning: "significance of the textile objects themselves and meaning incorporated in the making of the textile objects" (2001, p. 42). Schofield- Tomschin and Littrell also brought up the conveyance of values by textile items, as quilt makers today are aware of the "traditional ideology" (2001, p. 42) incorporated into their quilts that resonates with others who view the quilt.

Clover and Stalker (2008), as feminist educators, found that their interest in textiles was "stirred in particular by the number of women who used, albeit in different ways, these media as tools of social-justice learning and activism" (2008, p. 81). Their research investigated women in Canada and Aotearoa, New Zealand, who used fabric artwork to empower themselves. The women experienced growth or development in autonomy, trust in their abilities and skills as artists, increases in their decision-making capacities, and deeper understandings of society. Sarah Quinton, in the forward for the book, *Material Matters: The Art and Culture of Contemporary Textiles*, wrote that:

> textiles signify an engagement with their environments: hearth and home; the body; health and well-being. The global presence of textiles (in pre- and postindustrial forms), and the adroit capacity they have to embody local and personal meaning, lend the subject great currency….Is it this very familiarity and accessibility (even though they are at times rendered invisible by their own ubiquitous nature) that reward the artist and the scholar who recognize the authenticity of daily life? (Schofield- Tomschin and Littrell, 2001, p. 13-14).

2.3.3 Affective Domain

A growing body of research indicated that positive affect influences social behaviour, such as helping and generosity, cognitive processes such as memory, judgement, decision making, and problem solving, and most recently motivation" . Bolin, Khramtsova, and Saarnio (2005) suggested that a balance is needed between teaching to the cognitive and affective domains. Neglecting the affective domain in education may

lead to students who do not find value in the information they have learned. Neglect reduced learning and retention, while "teaching within the affective domain is strongly linked to the scholarly growth of college students" (2005, p. 154). They used student journaling to address affective levels and found that students saw the value in the information learned and in addition, gave a higher course evaluation. Graham (2003) explained that educating professionals in human service areas requires teaching and learning in the affective domain. The different dimensions of the affective domain Graham included were motivational, aesthetic, emotional, spiritual, and moral development. Consequently, "the more a value or attitude is internalised, the more it affects behaviour" (p. 59). Burgi-Golub (1997) explored emotion as a dimension of ethical and moral motivation. Science education also showed benefits of learning in the affective domain, as motivation to be a good steward for the environment was based upon the same moral behaviour to act responsibly and care for others (Littledyke, 2008; Shephard, 2008).

Ashby *et al*. (1999) proposed a theory that positive affect is accompanied by a slight rise in dopamine levels in the brain, the kind of slight elevation that occurs while experiencing everyday life. They acknowledged that it remains necessary to study this in addition to the fundamental reasons that make people happy. Their theory, however, could have implications for the ageing population, whose dopamine levels “decrease by 7% or 8% during each decade of life” (Ashby *et al*., 1999, p. 543), or for others who have decreased dopamine levels because of disease (e.g. Parkinson’s disease) or as a side effect of drugs that reduce dopamine levels.

2.3.4 Aesthetic Experiences as a Part of Affective Domain

As one moves into higher levels of the affective domain, the valuing category (level III of the affective domain) relates to appreciation of aesthetic experiences such as good art, music, or literature. The appreciation, valuing, and subsequent enjoyment of classroom involvement also may lead to aesthetic experiences. The aesthetic experience results in concentrated and heightened consciousness. There is an emotional aspect too, involving sensations and feelings as well as condensed symbolism and expression (Fiore, Kimle, & Moreno, 1996a, p. 31). DeLong *et al*. (2007) noted that the "sense of touch involves aesthetics" (2007, p. 35). They further stressed that designers need to be aware that different cultures may have different aesthetic preferences; for example, the results of their study indicated that respondents from the U.S. preferred objects with contrasting touch sensations. Suhor (1999) encouraged educators to be mindful of the settings in their classrooms and stressed that an aesthetic experience in a classroom, especially if the person is the creator, can elevate a person into a sensory, spiritual realm.

Sewing machines, patterns, tools such as cutting shears, measuring devices, pins, needles, and fabric are all used in apparel construction/sewing laboratory classes. The fabrics, or textiles, are the focus of this section. Textiles and the process of sewing may fit in several of the categories of an aesthetic experience. For example, Wright (2002) noticed the states of consciousness of members of her sewing group as awake and focused. Fiore *et al*. (1996a) discussed the “heightened and concentrated consciousness” and “stimulating mental events” (p. 31) that can characterize an aesthetic experience.

Fiore, Kimle, and Moreno (1996a, 1996b, and 1996c) proposed that a precise definition of aesthetics was difficult because the word can refer to “a state of being”

and/or "a quality of an object" (1996a, p. 30). Fiore *et al.* (1996a, 1996b, 1996c) explored aesthetic experiences in depth. They reviewed scholarly literature in several areas, sorting the focus of the literature into one of the following five categories: creator, creative process, object, appreciator, and appreciation process (1996a, p. 32). A student becomes a creator and engages in a creative process while working on projects for an apparel construction/sewing laboratory class. A

student may appreciate or participate in an appreciation process while working with others. The fabric itself may be as much an object of an aesthetic experience as it is part of the creation or appreciative processes. The garments or items constructed may be aesthetic objects; the positive hedonic value of the properties of the object can contribute to an aesthetic experience of the students.

Rehm (1998) argued that the aesthetic dimension of a person's life is "one of the most potent, yet one of the most overlooked, factors in creative and critical thinking of ordinary individuals and families (1998, p. 3) and that an aesthetic perspective could empower individuals (Rehm, 1998). Rehm (1998) presented a dynamic interrelationship of aesthetic perspectives, evoking an array of emotions as one notices particular details as diverse while also able to find a pleasing cohesive whole from the diversity. The need for diversity as an aesthetic quality was highlighted by Rehm (2000), who indicated that it "emphasizes the splendid mosaic of people, emotions, values, material things, sensory riches and ideas in both the physical and the social environment" (p. 157). Similarly, Kupfer (1993) described the aesthetic experience as a whole formed out of distinctive parts. We draw the whole into a community. When contemplating aesthetic classroom

experiences, Kupfer suggested, “Discussion grows out of the participation of the students” (1993, p. 5).

The teacher contributes a “love that initiates and sustains a quest” (1993, p. 17). This perspective calls into question a positivist point of view toward education, with the teacher as expert. In fact, Alexander (2003) suggested that to conceive of pedagogy “in aesthetic terms challenges the prevailing positivist epistemology on a deeper level because it questions the accepted distinctions between thinking and feeling” (2003, p. 2). Innovation and creativity are part of an aesthetic dimension. This is a central aspect for both instructors and students to recognize. Kupfer (1993) expressed that all parts of everyday life contained aesthetic values, if one is aware of them, and these values influence decision-making. Many people are aware of aesthetic values contained within fine art but not able to see the relations between experiences in everyday life that embody aesthetic values. Rehm (1998) indicated that empowering individuals to lead aesthetically rich lives takes thinking from an aesthetic perspective.

Clearly, an aesthetic classroom is rich below the surface. Peterat (1999) learned that “quilting and work with textiles had much to do with things other than the quilting itself and what was visible” (1999, p. 12), and admonished us to “attune ourselves to the invisible behind the visible” (1999, p. 13). Educators who embrace this may be inspiring their students to live aesthetically rich lives (Rehm, 1998; Suhor, 1998/1999) while encouraging them to be better decision makers at the same time (Kupfer, 1993).

2.3.5 Creativity

There is no universally accepted definition of creativity. However, Simonton (1999) defined it as production of a product that must be original, and must prove adaptive in some sense. This is similar to Kagan's (1998) definition where he stated that a creative intellectual product must be a constructive and appropriate solution to a problem which fuses known elements into a new and coherent synthesis. In children, the creative process is likely to be expressed broadly as they are likely to have a broad range of interests and have not settled in to a specific domain of interest. Creativity in children can be evaluated by comparison to age peers. As one becomes more experienced and committed to various areas of knowledge, the manifestation of creativity is likely to become more domain specific (Coleman & Cross, 2005).

Creativity is considered an essential skill for the 21st century that relates to one's attitude and confidence (Azzam & Robinson, 2009). Csikszentmihalyi (1999, p. 1) indicated that "creativity is a central source of meaning in our lives" in that when people are engaged in creative endeavours they feel that they are living life more fully. Personal satisfaction and creativity tend to be primary motivations for home sewing (Drohan, 1997; Schofield-Tomschin, 1999). To capitalize upon this, pattern companies emphasized individuality over economy when they advertised (Schofield- Tomschin, 1999).

According to UNESCO (2010, p. 15), "the encouragement of creativity from an early age is one of the best guarantees of growth in a healthy environment of self-esteem and mutual respect - critical ingredients for building a culture of peace." Creativity is an elusive and contested concept. There have been many attempts to define it. Creativity has been described as 'a state of mind in which all our intelligences are working together'

(Lucas, 2001) and as 'the ability to solve problems and fashion products and to raise new questions' (Gardner, 1993). Few experts agree on a precise definition, but when we say the word 'creativity', everyone senses a similar feeling. When we are creative, we are aware of a special excitement.

Creativity can be understood as having the power or quality to express yourself in your own way. Children are naturally creative. They see the world through fresh, new eyes and then use what they see in original ways. One of the most rewarding aspects of working with children is the chance to watch them create. Every child is born with creative potential, but this potential may be stifled if care is not taken to nurture and stimulate creativity. Young children are naturally curious. They wonder about people and the world. Even before they enter primary school, they already have a variety of learning skills acquired through questioning, inquiring, searching, manipulating, experimenting, and playing. Children need opportunities for a closer look; they need time for the creative encounter. Creative learning is a natural human process that occurs when people become curious and excited. Children prefer to learn in creative ways rather than just memorising information provided by teachers or parents. They also learn better and sometimes faster.

The term "creativity," as it relates to the classroom, goes beyond art class and school projects. At its best, creativity in the classroom is about how a teacher captivates students and inspires them to learn. Teachers who are practiced in the art of developing creativity are generally focused on creating a classroom culture that thrives on creativity. They build a repertoire of strategies designed to spark new ideas and bring out a spirit of creativity in students, and they adapt and create ideas for their own curriculum needs. What is needed is teaching that is innovative. Children need to experience the

unpredictable and the uncertain. They need lessons that produce surprise. As Fisher argued, creative learners need creative teachers who provide both order and adventure, and who are willing to do the unexpected and take risks (Fisher, 2002).

Creativity is the act of turning new and imaginative ideas into reality. According to Linda Naiman, founder of Creativity at Work (Shephard, 2008, p. 12), "Creativity involves two processes: thinking, then producing. Innovation is the production or implementation of an idea. If you have ideas, but don't act on them, you are imaginative but not creative." Naiman assertion promotes the use of arts-based learning to develop creativity, innovation, and collaborative leadership in organizations.

A creative curriculum offers children plenty of opportunities for creative behaviour. Such a curriculum will call for original work, independent learning, self-initiated projects, and experimentation. Using curriculum materials that provide progressive warm-up experiences, procedures that permit one thing to lead to another, and activities that recognise and reward creative thinking makes it easier for teachers to provide opportunities for creative learning. Children have a seemingly endless supply of creative energy. It shows up in their quirky impromptu rhymes and songs, in their imaginative play, and in their innate ability to make something out of anything. However, research on creativity points to a so-called "fourth grade slump" across various cultures (Torrance, 1997). It appears that when children begin school, their level of creativity is evident and often flourishing but, by the time they reach the fourth grade, they have become more conforming, less likely to take risks, and less playful or spontaneous than in earlier years. Today's children must be given the chance to develop their creativity to the fullest extent possible; not only for the benefit of their own future but also for the

communities we all inhabit. The focus of education must be on creating people who are capable of thinking and doing new things, not simply repeating what past generations have done (Fisher, 1990). We cannot limit people to doing only what they have done in the past if they are to be equipped for a world of challenge and change. As (Bennis cited in Shephard, 2008, p. 13) quoted "There are two ways of being creative. One can sing and dance or one can create an environment in which singers and dancers flourish."

People can use sewing skills not only to make clothing but also other items for the household. Cox (2005) related how a handmade quilt fashioned from worn clothing was an example of creativity and resourcefulness. Handmade objects are unique and can reflect personal creativity. Johnson and Wilson (2005) found that female handcrafters found meaning in the uniqueness of their "one-of-a kind objects," which was "an appealing aspect of their work" (2005, p. 123). Textiles, as well as the process of sewing, are frequently linked to creativity (Chaker, 2006; Loker, 1997; Nelson, LaBat, & Williams, 2005; Schofield-Tomschin, 1999). People who are passionate about sewing enjoy the process (Yin & Wiens, 2003; Donovan, 2000). Csikszentmihalyi (1999) observed that without passion people lose interest in difficult tasks and that "most creative persons are very passionate, emphasis original, about their work" (p. 72).

The American Sewing Guild (Lewis-Goldstein, 2010) is a 20,000-member non-profit organization describing itself as "dedicated to people who believe sewing is a rewarding and creative activity." In response to the loss of sewing classes in educational institutions in the mid-1970s, the guild idea came to fruition as a way to "keep the interest in and tradition of home sewing alive and well as a valued part of American culture" (American Sewing Guild, 2010). With 135 chapters across the United States, it

appears to be a successful idea. The Hobby Industry Association (as cited in Monson, 2005, p. 5) listed apparel/fashion sewing as number three in the top ten list of America's most popular pastimes.

There is an increasing recognition today that a key component of giftedness is creativity. It is not sufficient to simply know a lot of "stuff" regardless of the discipline. Rather, it is what we do with what we know that is important, particularly how we are able to come up with new solutions, products and applications. Despite an increasing awareness of the importance of creativity, a number of fallacies continue to circulate. Below are a few of the most common, followed by the corresponding fact:

Fallacy-- Some people are naturally creative and some are not.

Fact--Although some people are naturally more creative than others, everyone has some degree of creativity. Further, creativity can be developed and even increased through a combination of effort and experience (Davis &Rimm, 2003).

2. **Fallacy**-- Creativity is mostly associated with the Fine Arts.

Fact-- Creativity can also involve problem solving in any domain such as Science, Mathematics, societal and world issues.

3. **Fallacy**--Creativity correlates strongly with measures of intelligence.

Fact--There is some correlation between IQ and creativity up to a certain point. Beyond that there is not. Thus, it is unlikely to find a very creative person who is not at least of high average cognitive ability but one does find people with high IQ scores and limited creativity.

4. **Fallacy**-- Creativity is a free-flowing gift that manifests itself spontaneously and without great effort.

Fact--Creative production requires self discipline, practice, overcoming obstacles and planning. In the words of psychologist Jerome Kagan, "Creativity is not an unconstrained expression of ideas that acknowledges no boundaries and addresses itself to no particular problem" (Kagan, 1998).

2.3.5.1 Therapeutic Nature of Creativity

Creative arts are often seen as therapeutic. La Ferta (2004), Monson (2005), and Werhan *et al*. (2004) all relate occurrences of using a creative art, such as sewing, as a form of stress release and an alternate form of psychotherapy. Schofield-Tomschin (1999) indicated that home sewing could be therapeutic for people who have arthritis (1999, p. 103). The therapeutic nature of sewing is not limited to those who are doing the sewing. Coffman (2004) found that being the recipient of something hand sewn, such as fleecy muffs or stress balls, can comfort or sooth a person. She wrote about a community-based programme called 'Simple Gifts', developed to address "the needs of persons with dementia, their families, and caregivers" (2004, p. 58). The hand-made items reduced the anxiety, agitation, and behaviour problems of patients.

2.3.5.2 Creative Abilities

There are a number of sub-abilities that seem to relate to creative potential. The first four listed are from the work of Torrance (1997) and Guilford (1997) and are well known, but there are numerous others listed by Davis and Rimm (2003). Some of these are listed and briefly described below:

Fluency: The ability to produce many ideas in response to a problem or question.

Flexibility: The ability to take different approaches to a problem, to think of ideas in different categories, or to view a situation from several perspectives.

Originality: Uniqueness.

Elaboration: The ability to add details to, embellish, and implement a given idea.

Problem finding, problem sensitivity, and problem defining: An ability to *comprehend* the "real" problem, see a problem more broadly, and discern missing information.

Visualization: The ability to picture things in one's mind and to mentally manipulate images.

Ability to regress: The ability to think like a child whose mind is less cluttered by habits, rules and traditions.

Analogical thinking: The ability to borrow ideas from one context and adapt them to another or the ability to borrow a solution from one problem and transfer it to another.

Evaluation: The ability to think critically and to evaluate the "goodness' or appropriateness of an idea, product or solution.

Analysis: The ability to separate parts of a whole.

Synthesis: The ability to see relationships, to combine parts into a workable, perhaps creative, whole

Transformation: This includes the ability to adapt something to a new use; to see new meanings, implications and applications; or to creatively change one object or idea into another.

Extend boundaries: The ability to go beyond what is usual.

Intuition: The ability to make mental leaps, make references or see relationships based on limited information.

Predict outcomes: The ability to foresee results.

Resist premature closure: The ability to defer judgment and not jump to the first idea that comes along.

Concentration: The ability to focus on a problem for long periods of time, free from distractions

Logical thinking: The ability to deduce reasonable conclusions, and to separate relevant from irrelevant.

Aesthetic thinking: Sensitivity to, and appreciation of, beauty in art, design and nature.

2.3.5.3 Characteristics and Attributes Related to Creativity

Winebrenner (2001) cautioned that many creative thinkers do not do well in school. At the same time, people who have made the most significant contributions to humankind generally exhibit the characteristics of giftedness. It is often these non-conformers who have profoundly affected our lives. Winebrenner (2001) lists the following characteristics:

• Displays original ideas and products;

• Is fluent in idea generation and development;

• Is able to elaborate on ideas;

• Demonstrates flexibility of ideas and points of view;

• Experiments with ideas;

• Has a good sense of humour;

• Is impatient with routine and predictable tasks;

• Has a tremendous capacity for making unexpected assumptions;

• Challenges accepted assumptions;

• Says what he thinks without regard for consequences;

• Has a great imagination; daydreams often;

• Dresses in nonconformist ways;

• Can persist at one task to the total exclusion of others;

• Is a brilliant thinker but absentminded;

• Is passionately interested in a particular topic or field of endeavour;

• May be talented in the fine arts;

• May do better on standardized tests than class work leads the teacher to expect.

Clearly, in the classroom, the creative child can be both a joy and a challenge or some combination of the two. Not infrequently, a teacher is called upon to make wise judgments about when conformity is reasonable and necessary and when it will needlessly impede and frustrate a student. Knowledge about the nature of creativity, personal empathy and experience all help to develop this wisdom. Two very interesting characteristics that are very solid indicators of creativity in secondary students or adults are having an imaginary playmate as a child and involvement in the theater (Davis, 2003).

Albert (1998) listed a number of cross-cultural personality traits that are indicative of creativity. Included in these are: impulsivity, attraction to complexity and unconventional ideas moderate rebelliousness, high ego strength and passion.

2.3.5.4 Attributes of Creativity

In this session of the literature review, attributes of creativity was examined. A brief economic definition of creativity would be given and the impact of creativity on market behaviour would be examined, using fashion as the market of reference.

2.3.5.5 A brief Economic Definition of Creativity

According to Shephard (2008), creativity may be considered as an economic good produced by the human mind. Creativity is the action that gives rise to something original and unique where nothing was before. This action may take different forms ranging from invention to discovery or even to epiphany. Shephard (2008) reiterated that creativity is the disclosure of novelty. He classified creativity according to three criteria: the particular nature of the good, the attributes that influence demand, and the attributes that influence supply.

Creativity versus Innovation

In the language of economics, creativity may be conventionally contrasted with innovation. Thus, while creation implies giving life to something that derives from nothing before it; innovation is understood as introducing something new into an existing domain, sequence or process. This conventional view will be explored according to the two main characteristics of creativity: anti-utilitarianism and non commutability. In any case, this distinction is rather new within the domain of technological innovation, where creativity is perceived as a usual ingredient of the innovative act, and the focus of analysis is on its schumpeterian destructive ability or on its being the original source of “disruptive technologies” (Christensen, 1997).

According to the present view, creativity is an essential and autonomous component of human life; basically, it helps develop the intrinsic capacities of the personality. In economic terms, this approach considers creativity to be an anti-utilitarian act, and it stands in opposition to the concept of innovation, which, on the contrary, is registered in the utilitarian system of behavior (Shephard, 2008). Creativity has no purpose, it is an anti-utilitarian good. The creative effort produces positive values. It functions as a factor of self-realization, it is rich in intrinsic enjoyment and in self-fulfillment. The assumption that the creator's work is a costly effort becomes less and less valid when one approaches the concept of creative work. In an anti-utilitarian model there is an intrinsic satisfaction in creative work: the more time she/he devotes to this type of work the more she/he is satisfied (Throsby, 2000).

A second characteristic of creativity is that it is a non-cumulative good. Creativity is rupture, whereas "normal" innovation as conceived within the frame of a given scientific paradigm (Kuhn, 1992, 1997) is a cumulative and incremental process (Santagata, 1998). This feature helps us to more precisely define the anti-utilitarian behaviour assumption: the creator offers his working time, because she/he takes pleasure in it. The quality of her/his life does not depend only on consumption, but also on the advisability of choosing to engage in creative work. The "... desire for creativity is one of the most important motivations of human beings in general, and in our post-industrial era in particular" (Simonton, 1999, p. 3). This model of behaviour, or "art for art's sake property" model, is rather the rule in the creative industry (Caves, 2000). Innovation is instead directed towards the implementation of change (aesthetic, technological or functional). It is a utilitarian good. Innovation is a utilitarian, incremental and cumulative

act. It relates to consumption, expressing the objective utility of a product or service. The work required for process of innovation involves sacrifice and a cost, and implies an external monetary reward.

2.3.5.6 Other Essential Attributes of Creativity

As for the other essential characteristics of creativity, it must be emphasized that the intangible character of creativity implies that it has to be observed in some material support which contains it and reveals it. The support can be a mere sheet of paper for storing ideas, design and forms; it can also be a more complex object which embodies a creative function. Now, while the support is usually a private good, creativity per se and the creativity incorporated in an object is a public good, sharing the features of non-rivalry and non-exclusion. However, just like ideas, creativity must be protected on the market, first of all by establishing laws securing intellectual property. As is well-known in the literature on counterfeiting (Benghozi and Santagata, 2001), enforcement of the law is often ineffective, and unlicensed or unlawful producers can copy, at zero cost, any sign of creativity seen, perceived or detected in a creativity-based object. The higher the economic value of the creative and intellectual component of an object, the higher is the incentive to copy.

Finally, creativity is non-exhaustible and non-saturable goods. The idea or concept serves as an intangible support of creativity. An idea expresses, describes, and makes a creative act historical. Unlike natural resources, ideas, resulting from human creativity, are fully exploitable but not exhaustible. The creativity of fashion goods is linked to social evolution and is therefore continuously renewed. Design is linked to its

epoch and is therefore always different. Industry enters an inexhaustible field, putting firms on a different footing for confrontation and competition. However, as will be shown in the next section, the evolution of creativity cannot be linear: periods of great creativity and phases of stagnation can always be found, especially in the world of fashion.

2.3.5.7 Models of Creativity

Creativity is a hedged and dynamic concept. The search for a complete or absolute definition is an ongoing process. Nonetheless, in the metamorphoses of its rationale, we can recognize the tendency for creativity to have become a fundamental resource of a post-modern society. This section of the study discusses three models of creative people and the process of creativity: the creative genius, the manager and problem solving, and creativity as a neurological and social process.

a. The creative genius

The conventional model of creativity is based on the romantic idea that creativity is the sign of genius, a ".. superior aptitude of the spirit that makes somebody capable of creations, of inventions which appear extraordinary" (Robert, 1988 quoted by Shephard, 2009). According to this definition, the creative genius is absolutely an inspired person. This is the image of creativity as epiphany, a gift received by means of the inspiration, meaning ".. to receive from a mysterious authority, in a way charged of all the characteristic opacity of the creative act, the secrecy of a discovery"(Kupfer, 1993, p. 10)

This model is especially interested in the narration of the intellectual and psychoanalytical traits of the genius (Kris and Kurz, 1994; Jameson, 1994). Actually, for post-modern culture and particularly for contemporary art, the artist-genius who creates

works opposing previous movements and styles is considered to be highly stimulated by psychoanalytic phenomena. Each work of art originates from a hallucination or delirious vision.

This model also explores the whole set of conditions that make it possible to release creativity as a potential property of the spirit. Then it seeks correlations between creativity and a number of human conditions: feelings of guilt, madness, need for autonomy and attitudes towards risk, sex, age, intelligence, money and non-conformism. The image of the creative genius is, therefore, related to a literary and psychoanalytic conception of creativity, as in the case of the creative inventor. While this model offers a literary description of genius, it would require a lot of jumping through intellectual hoops in order to derive from it a general definition for creativity, and in the process, one would inevitably be forced into the logic of conventional definitions.

b. Creativity as Problem Solving

The minimal definition advanced by Simon (1996) is a procedural formula, moving the topic of creativity into a cognitive dimension and anticipating the logic of creativity as a process. Creativity has been defined as a way the mind operates,.. .. the process with the means of which the mind transforms information into combinations of concepts and produces new ideas "(Goleman, 1997). One may add that creativity is an act of the human brain, manifested as a process which allows us to think and solve our problems - in a way that is commonly considered to be creative (Simon,1996). Simon's thesis-definition is that creativity consists in good problem-solving.

According to Simon (1996), the process that leads to creativity is founded upon three general conditions.

1. To be prepared. "Chance, in the words of Pasteur, favours the prepared mind." A casual discovery per se does not exist. "It is the surprise, the departure from the expected, that creates the fruitful accident; and there are no surprises without expectations, nor expectations without knowledge" (Simon, 1996).
2. To be experts. Nobody - fashion designers, painters, or musicians –can attain excellence without "an intensive effort to acquiring knowledge and skill about a domain of expertise ".
3. To risk. Science often requires accepting calculated bets. "Information is only valuable if others do not have it or do not believe it strongly enough to act on it. ... Science is an occupation for gamblers. It is necessary to risk, because, if we want to explore new fields in a creative way, common information is not used instrumental in obtaining differentiated advantages: "...scientists require a "contrarian" streak that gives them the confidence to pit their knowledge and judgment against the common wisdom of their colleagues." (Simon 1996).

This set of characteristic conditions represents an improvement on prior definitions. Yet, it actually only creates a number of images around a concept. It tells us that fashion designers, for example, with imagination, judgment, taste, intelligence, expertness, and a taste for risk are, therefore, creative. It does not reveal the physical sources of creativity. How does the human brain produce creativity? What physical mechanisms of the brain activate a creative mind? When all the secrets of the production of ideas, emotions, and feelings have been discovered, we may be able to better define creativity, just as today we know more about the limits of pure rationality following the discovery of the relation between spirit-brain-emotion-social behaviour (Damasio, 1994).

The two models, thus, far presented namely the creative genius and creativity as problem solving, are nonetheless very different. The vision of the creative genius is a mystical concept. From a political and constructivist point of view, this definition fails to assist us in increasing, reproducing and transmitting creativity. How many dressmakers in the fashion world are described with these same words, thus transforming them into extraordinary characters? Nothing could be further from the truth. The procedural approach of Simon and of the contemporary cognitive sciences is instead a significant source of practical suggestions. Let us now turn to Descartes's Error and the neurological theory of the creative emotions, as described in Antonio Damasio's remarkable work (Damasio, 1994).

c. Mind and Brain; Body and Emotions

Body counts, brain counts. Damasio's revolutionary message announces that our whole body is involved in our rational faculty, "... that the body provides a basic reference to the mental processes ". Body and brain play a fundamental role in the faculty of reasoning: their physical function is to process the emotions that the external world sends us all the time. Body and brain, as a unique organism, take part in the interaction with the environment, which is, in turn, partly the product of the human organism's activity (Damasio, 1994).

Emotions count. Emotions are defined as "the series of changes which occur in the body and the brain, generally in reaction to particular mental contents". One of the most astonishing discoveries in modern neurobiology has been locating the area in the brain responsible for producing an emotional state in the body. The surprising story of Phineas Gage (1899-1986 cited in Nunan, 1996), tells us of a man who in a labour

accident lost the pre-frontal part of his brain, with no apparent physical damage. Further clinical and experimental studies have demonstrated that this part of the brain, the pre-frontal cortex, is responsible for recognition of the emotions, and that, in its absence, we have "knowledge without emotions". Patients without emotions still continue to exert an intact and active intellectual faculty, but their decision-making ability is impaired. Damasio (1994) noted that the reasoning of individuals lacking emotions proceeds as an infinite sequence of cost-benefit analysis which never leads to a decision. Rationality without emotions proves to be an infinite process. Rationality alone represents the bankruptcy of any process of decision-making. Decision-making is made possible by the presence of what Damasio (1994) called "somatic markers", that is, images arising from the emotions and which act in the neural structure, allowing the brain to announce that it is necessary to interrupt the reasoning process, which is leading no-where, and to choose one of the alternatives. The relation between the emotions and reasoning and the assumption of the existence of somatic markers that facilitate decision-making, give a neurological base to Simon's theory of bounded rationality.

Environment counts. Returning to the theme of creativity and fashion, it is clear that creativity as a problem-solving activity depends on our capacity to interact with a continual flow of emotions. But good emotions influence us positively if we live in a natural or social environment that is rich in such emotions: an environment where there are no intellectual constraints, where incentives and ideas circulate freely and without cost, where freedom to associate ideas and to experiment reaches a climax. As we will when analyzing the subject of creative management, the theory of emotions is useful in

explaining why redesigning a company's organizational and mental environment, so to speak, increases its rate of creativity (Shephard, 2008).

The traditional economic approach maintained that the individual and his mind are a monad, a single entity which simply reacts to a system of price signalling, without any contact or communication with other individuals. In this view, instead, the body and the brain both exist within nature and are submerged in a universe of relations, emotions, and interactions (Shephard, 2008). He argued that social interaction and the emotions stemming from them are necessary conditions for promoting problem-solving and creative activity; rationality alone is insufficient. Thus, the productive or research environment are a key factor in allowing creative emotions to be released in order to produce, increase, and transmit creativity.

Descartes' error (Damasio, 1994) was to underestimate the value of the body in relation to the mind: the res extensa as opposed to the res cogitans. Modern neurological study of the pre-frontal cortex areas reveals that we are and then we reason. And our social and natural environment can be modified, just as we can in turn modify our rate of creativity by means of the emotions we experience. The metamorphoses of our understanding of creativity show a tendency towards a procedural approach. Understanding the origins of creativity, the conditions of its existence and the needs to which it corresponds, is a necessary step if we wish to learn how to produce, increase and transmit creativity. Creativity may best be considered a process characterized by a dual socio-aesthetic and organizational nature.

This process is implicated in every field of human activity, especially in the logic and dynamics of industrial production. The fashion market, in particular, has been deeply

influenced by the creative activity of designers and entrepreneur-managers. Creativity in haute couture and ready-to-wear apparel (Grumbach, 1993) has existed since the 20th century. What is new is the development of the concept of creativity, which has developed on two complementary levels: on the one hand, within the subjective sphere of the design of fashion goods; on the other, within the collective sphere of economic organizations and creative management.

2.3.5.8 Challenges of Teaching and learning to Sew in Colleges

Students' attitude is a problem to the teaching and learning of sewing. The students had a negative attitude in the sense that they did not consider the study of sewing as a career but as a job for illiterates. Students considered money spent on doing sewing projects as a waste. In addition, students did not complete their sewing assignments and projects. They felt bored in classes and they did not feel confident that they would do well in the subject. Anene-Okeakwa (2002) noted that many students hate sewing as a subject in the school. Some have little interest in the subject. A reason for this might be because of general societal attitudes that see vocational subjects as subjects for the under achievers and girls (Owolabi *et al*. 1991). It might also be as result of lack of appreciation and awareness of learners on the important role of sewing to socio-economic advancement of the nation. Whatever the reasons, the negative attitudes of the students are likely to hinder effective learning of the subject because studies looking into the attitudinal patterns of school learners have established that in schools' classroom instruction, attitudes determine to a great extent, the degree of success to be achieved (Imarhiagbe, 2002; Okeke, 2006).

Teacher quantity and quality also presented great problems to the teaching and learning of sewing. Students indicated that there were inadequate clothing and textiles teachers in their schools. The available teachers did not teach the subject very well and were not innovative and resourceful. Besides, the teachers spent almost all the class time on the lessons with no time left for practical work. They mostly did mere dictation of notes, and were not concerned that as many students as possible understand the lessons. These were observations of Mberengwa (2004) that the insufficient quantity of teachers has the tendency to influence teaching negatively with its implications on performance. Azih (2001) also found that the quality of tutors in Colleges of Education is so low. This suggests that many of the sewing tutors are deficient in attainments, unknowledgeable in skill and accepted teaching practice. Teachers lacked innovation and resourcefulness. This is because teacher education has failed to prepare the clothing and textiles teachers adequately for classroom practice, and prepare the clothing and textiles teachers adequately for classroom practice, and in-service seminar or workshops are not regularly organized for the teachers. Poor quality teaching is a problem that adversely affects learning because Anyakoha (2002) made it clear that what students learn cannot go beyond what their teachers are able to present them. Several research reports such as Olaitan (2001), Osisefo (2004) and Uko-Aviomah (2005) indicated that students' poor performance at the end of a school year is attributable to factors relating to the skill and effectiveness of the teachers. If teachers are weak in content knowledge and pedagogical competence so vital for effective learning, then the limits of achievements of learners will equally be weak.

It was further found that lack of funds, inadequate instructional materials, lack of improvisation and utilization of teaching aids, as well as inadequate laboratory constituted problems to the teaching and learning of sewing. Ogwo and Oranu (2006) also found that inadequate instructional materials and unwillingness of teachers to improvise is a great impediment to sewing instruction.

The lack of materials is compounded by teachers' lack of interest to use the limited ones available or even improvise simple materials. Inability of teachers' to improvise might be due to insufficient time. Sammons (1994) observed that teachers who already have too much class work and school responsibilities may find that instructional materials require additional time to improvise and to prepare for using them in the classroom. They may feel that they have no extra time to spare to facilitate their use of such materials.

Lack of incentives for the teachers who sacrifice their time to improvise and integrate improvised instructional materials in their classes contributes significantly to teachers' lack of resourcefulness and teacher incompetence in the operation of teaching aids. Many instructional materials do not necessarily have to be bought or factory produced. This study believes that teachers can improvise materials, or rather exploit objects and situations in the classroom such as nature corner for teaching different aspects of sewing because the absence of instructional materials will place serious limitations on what the teacher can achieve.

Some curriculum issues were identified as problems. These include; wide difficult texts and topics, lack of excursions and field trips, too much of measurement and calculations, and uninteresting methods of teaching. Similarly, Okpala (2005) observed

that few teachers are capable of using effective methods to manage ideas within classroom discourse as few teachers neither know how tosequence materials, formulate questions, teach frameworks explicitly, organize studies nor monitor classrooms well. Similarly, Okpala (2005) observed that few teachers are capable of using effective methods to manage ideas within classroom discourse as many do not know how to sequence materials, formulate questions, teach framework explicitly, organize studies nor monitor classrooms well.

Anyakoha (2002) also observed that Clothing and Textiles curriculum is wide and demanding, but she urged teachers to use appropriate instructional methods in teaching. It appears that sewing teachers' combination of subject matter; understanding and pedagogical skills are unimpressive. These curriculum issues are likely to result in a classroom atmosphere of disenchantment, which would make teaching and learning virtually impossible.

2.3.5.9 Strategies to Enhance Creativity

There are many strategies that teachers can use to promote creativity in students, which also have the added benefit of increasing a teacher's personal creativity. Some are specific to school and some are more general.

School Strategies

The following strategies are suggested by a group of teachers and quoted in Fleith (2000): Cluster groups based on student interest, providing options, drawing, brainstorming, open ended activities, hands on activities, and creative writing. Others include: mentoring with a creative person or professional, recognizing and valuing

creativity in students, allowing "incubation time" for students to formulate answers to divergent questions, encouraging risk-taking as well as modeling it and being enthusiastic.

Developing General Creativity (Teachers)

a. Keep creativity journal personal efforts to be creative, observations about others' creativity, creative aids and ideas among others.
b. Make oneself do something different every day - even small things like taking a different route to school or ordering something different from a menu.
c. Set goals, both personal and professional, in the case of students, school related.
d. Travel to different locales which provide one with a different perspective as well as a wealth of "raw material" for creative production.

2.4 Summary

Many educators are familiar with the cognitive domain, but emotional or affective dimensions of courses are usually not considered or evaluated in educational settings. This study therefore reviewed literature on the framework of adult learning theories related to the affective domain and discussed issues related to concept of sewing and its significance. The review also covered characteristics of creative person and how creativity influences the supply and people choice of goods especially those related to what are worn by people. Space, time, symbols, culture and the social environment require an economic theory which no longer classifies creativity-based goods as exceptions to be set apart from its main object of study. The fashion world has been deeply influenced by the emergence of creativity.

The behaviour of consumers and producers has changed extensively in response to the rhythms and changes of creativity, a good that is both rare and inexhaustible. Students need to be taught strategies to adopt to promote creativity among them. The issue of creativity needs to be focused in the sewing industry especially in formal education which is concerned with vocational education such as sewing.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter primarily focuses on the research techniques and methods used to conduct the study. It discusses the research design, the population, sample, sampling methods selected, research instruments used, the data collection procedure and method of data analysis.

3.2 Research Design

This study surveyed teaching and promoting of creativity in sewing among vocational skill students of four Colleges of Education in the Ashanti Region of Ghana. The research design used for this study was the descriptive survey. The usefulness of the descriptive survey for this type of research study is supported by Gay (1992) who emphasised that the descriptive survey is an attempt to collect data from members of the population in order to determine the current status of the population with respect to one or more variables. He also recommended the descriptive survey for the purpose of generalising from a sample to a population. It is clear from the above that considering the problem under study, the research questions, as well as the sample distribution, the most appropriate method of eliciting information to solve the problem is through the descriptive survey.

Descriptive survey seeks to find answers to questions through the analysis of relationship between or among variables (Fraenkel & Wallen, 2006). Also, a descriptive survey affords the opportunity to select a sample from the population being studied (Gay,

1992). Furthermore, the descriptive design often employs the method of randomization so that error may be estimated when population characteristics are inferred from observation of samples. Thus, the findings can form the basis of generalization about the phenomenon studied.

Nevertheless, there are difficulties involved in descriptive survey. These include ensuring that, the questions to be answered are clear and not misleading, getting respondent to answer questions thoughtfully and honestly, and getting sufficient number of questionnaire completed and returned so that meaningful analysis can be made (Fraenkel & Wallen, 2006). Again, descriptive designs are easily influenced by distortions through the introduction of biases to measuring instrument. These disadvantages notwithstanding, the descriptive design is considered the most appropriate method of eliciting information to solve the problem for this study because it seeks to survey the teaching and promoting of creativity in sewing among Vocational Skill students in the Colleges of Education. The survey design also allows simultaneous description of views, perceptions and beliefs at any single point in time (Fraenkel and Wallen, 2006).

3.3 Population for the Study

The study was carried out among Vocational Skill tutors and students in four Colleges of Education in the Ashanti Region of Ghana. The selected Colleges of Education were Mampong Technical College of Education, Akrokerri Colleges of Education, St. Wesley College of Education and Agogo Presbyterian Colleges of Education. One hundred and twenty students from first and second year classes of the

four colleges were sampled and used to conduct the study. In addition ten tutors who teach Vocational Skill courses in the colleges were also used as respondents for the study.

3.4 Sampling and Sample Procedure

The sampling procedure described the selection of respondents who participated in the study. The choice of the Colleges of Education in the Ashanti Region was by convenience sampling technique because I teach Vocational Skills in one of the Colleges is the Region. The choice of the Ashanti Region made it possible for me to have access to the tutors, students and other materials required for the study.

The Colleges selected from the Region for the study were by simple random sampling technique. All the eight public Colleges of Education in the Region were given numbers and the numbers written on pieces of papers. These papers were placed in a bowl and mixed thoroughly. Four students were chosen to pick a piece of paper from the bowl, one at a time. The pieces of papers drawn were replaced before the next one was drawn. However, if the same number on a piece of paper was drawn for the second and third times, they were ignored and the pieces of papers replaced before the next one was drawn. This procedure was followed until all the four Colleges were selected for the study. The reason for using this procedure was to avoid bias in the selection of the Colleges for the study and also give equal opportunity to all Colleges in the Region to be selected for the study.

The selection of 120 Vocational Skill students from first and second year classes and 8 tutors involved simple random sampling techniques. Specific attention was, however, paid to inclusion of both male and female students and tutors in the study

sample. The process of simple random sampling used was the same as those described above. The 8 tutors were selected for the study using purposive sampling procedures because they are those who teach Vocational Skills in the Colleges of Education in the study area.

3.5 Research Instrument

Self designed questionnaires were the major instruments that were used for the data collection. Two sets of questionnaires were used; one for the students and the other one for the tutors. The use of the questionnaires made it possible for data to be collected for the study. According to Gay (1992) descriptive survey studies are conducted using questionnaire.

The structure of the items on the two questionnaires was mainly close-ended questions. The choice of close-ended items was appropriate because they were easier to administer code and analyse. They are also easier for the respondents to complete. The close-ended format offered the respondents fixed alternative responses from which they were required to choose one option which was most applicable to them. The structure of the items was based on both multiple choice and Likert type scale.

The contents of the questionnaire were divided into sections and developed along the line of the research questions formulated to guide and give direction to the study. Section A contained items that dealt with background information of the tutors and students. Section B of the students measures affective levels of the students on sewing whilst that of the tutors was about their perceived creative characteristics of the students. Section C of the students' questionnaire contained 14 items and dealt with creative

characteristics of the students whilst the tutors' one was on strategies to promote creativity among students in sewing classroom and contained nine items. Section D of the students' instrument was on students' attitude towards sewing and fabrics and consists of 13 items. The items in Section B of the students' instrument were constructed on five point Likert type scale summated: Not at all (1), A little (2), Somewhat (3) Greatly (4) and Absolutely (5). Items in Sections C and D of the students' questionnaire and Section B of the tutors were based on four point Likert type scale using Strongly Agreed (SA=4), Agree (A=3), Disagree (D=2) and Strongly Disagree (SD=1). Section C of the tutors' instrument was constructed using three point Likert type scale based on Often (3), Sometimes (2) and Never (1).

3.6 Pilot-testing of the Instruments

To ensure validity of the items on the instruments, they were developed under close guidance of the supervisor. After the questionnaires have been designed, they were pilot-tested at Offinso College of Education also in the same Region. This was done to help identify ambiguous items on the instruments and re-align them for comprehension and achievement of objectives of the study. With the help of Predictive Analytic Software (SPSS 16.0 version), the internal consistency of the items for Cronbach's alpha co-efficient was calculated for the pilot data collected using the two questionnaires. The Cronbach alpha value obtained was 0.75 for items on the students' questionnaire and 0.80 for the tutors' items. This showed that the items on the instruments were reliable and can be used for the study. Research has shown that items with Cronbach's alpha co-efficient of 0.70 or more are reliable as recommended by Gliem and Gliem (2003).

3.7 Data Collection Procedure

The instruments were administered personally to ensure proper coverage, high return rate and to establish rapport with the students and tutors. An introductory letter providing an explanation of the intent and authenticity of the research was first delivered to the Principals of the colleges who later informed the tutors and students in the Vocational Skills Department of the colleges sampled. Data were collected from primary sources using the questionnaires.

The researcher first visited the colleges to acquaint herself with the environment and the tutors and fixed a date for the administration of the questionnaires. On the fixed date, the researcher visited the colleges to administer the questionnaires. The sampled students were assembled in one classroom and the purpose as well as the structure of the questionnaire was explained to them. The questionnaires were then distributed to the students to answer after the necessary explanations have been given for comprehension of what to do and how to answer the items. The completed questionnaires were collected on the same day they were answered. The tutors' questionnaires were administered alongside those of the students.

3.8 Data Analysis

Data collected with the questionnaires were entered into Predictive Analytic software (SPSS 16.0) and analyzed. Several descriptive statistics were computed in a form of frequencies, percentages, and means with their respective standard deviations. Pearson Product Moment correlation and regression analysis were carried out to establish relationship between affective domain and creativity in sewing among the students.

The analysed data were organized according to the research questions. The results were then presented in a tabular format and discussed in chapter four.

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Overview

This chapter presents the results and discussion of the findings of the study. The presentation of the results involved analysis of the main data, interpretation of the analyzed data and discussion of the findings. The results were presented in two parts. The first part deals with analysis of the demographic characteristics of the respondents whilst the second part deals with analysis of the main data of the study.

4.2 Demographic Characteristics of the Respondents

The demographic characteristics which were relevant to this study were gender of the students and tutors, ages of the students and tutors and teaching experience of the tutors. The gender distribution of the students and tutors used for the study is shown in table 4.1.

Table 4.1: Gender Distribution of Students and Tutors

	Students		Tutors	
Gender	**Freq.(n)**	**%**	**Freq.(n)**	**%**
Male	40	33.3	4	50.0
Female	80	66.7	4	50.0
Total	120	100.0	8	100.0

As shown in Table 4.1, 40 (33.3%) out of the 120 students used were males whilst the remaining 80 (66.7%) students were females. On the other hand, 4 (50.0 %) of the tutors used to conduct the study were males whilst the other 4 (50.0%) were females. From the result it could be seen that more female students were used to conduct the study than males whilst equal number of male and female tutors were used to conduct the study.

The study looked at the age distribution the students. Table 2 presents the age distribution of the students.

Table 4.2: Age Distribution of the Students

Age (years)	Frequency (n)	Percentage (%)
20 – 25	102	85.0
26 – 30	18	15.0
Total	120	100.0

Table 4.2 indicated that majority of the students used to conduct the study, 102 (85.0%) were between the ages of 20-25 years whilst only 18 (15.0%) other students were between the ages of 26 – 30 years. Thus, most of the students used for the study were between the ages of 20 – 25 years. Students in this age bracket were supposed to be in the Colleges of Education according to the system of education in Ghana (Antwi, 1992). The system of education in Ghana according to Antwi (1992) is six years primary education, three years of junior high school, three years of senior high school and four years of University education. Based on the above system, a student in College of Education should be above the age of 19 years. This showed that majority of the students used for the study were in Colleges of Education.

This study looked at the academic qualifications of the tutors teaching Vocational Skills in the Colleges of Education. The qualifications given by the tutors are shown in Table 4.3.

Table 4.3: Academic Qualifications of Vocational Skills Tutors

Type of qualification	Frequency (n)	Percentage (%)
First degree	0	0.00
Second degree	8	100.0
Other	0	0.00
Total	8	100.0

The data presented in Table 4.3 indicated that all the tutors teaching Vocational Skills in the study area were second degree holders. The results showed that majority of the tutors teaching Vocational Skills in the Colleges of Education in the study area have the minimum qualification to teach in the Colleges. This outcome of the study is consistent with those of Darling – Hammond, Berry and Thoreson (2001) findings that tutors who are trained and teaching in their areas of qualification do well in their teaching especially those involved in Vocational skills acquisition.

The teaching experiences of the tutors were sought during the study. Table 4.4 shows the various years that the tutors have taught.

Table 4.4: Number of years Tutors have taught

Number of years taught	Frequency (n)	Percentage (%)
6 – 10	3	37.5
11 – 15	5	67.5
Total	8	100.0

As presented in Table 4.4, 3(37.5%) of the tutors have taught for 6 – 10 years. In addition, 5 (67.5 %) of the tutors have taught for 11 – 15 years. The number of years taught as shown in Table 3 indicated that most of the tutors have taught for six years and above. Tutors who have taught for six years and more have experiences and faced problems in one way or the other during the course of their teaching Vocational Skills, particularly clothing and textiles. The responses of the tutors with these considerable teaching experiences could provide valid data for the study.

The study delved into sewing experiences of the students before entering into Colleges of Education. The students' responses to the question "Have you had any sew experience before being enrolled into the College of Education to pursue Vocational Skill Programme" are shown in Table 4.5.

Table 4.5: Pre Sewing Experience of the Students

Variable	Frequency (n)	Percentage (%)
Yes	46	38.3
No	74	61.7
Total	120	100.0

As shown in Table 4.5, 46 students representing 38.3% responded 'Yes' they have had sewing experience whilst 74 (61.7%) other students said 'No' they have not experienced sewing before being enrolled into Colleges of Education to pursue Vocational Skills. The results, thus, indicated that majority of the students have not experienced any form of sewing.

The students were further asked if they had any informal training before? Table 4.6 presents the responses provided by the students.

Table 4.6: Students' Informal Training on Sewing

Variable	Frequency (n)	Percentage (%)
Yes	43	35.8
No	77	64.2
Total	120	100.0

Table 4.6 indicated that 43 (35.8%) of the students responded Yes, they have had informal training before whilst the remaining 77 students who represented 64.2% indicated No. This result implies that most of the students never had any form of training in sewing.

4.3 Analysis of the Main Data of the Study and Discussion of the Findings

The second part of the chapter looked at the main data of the study. The data analysis was done in responses to the research questions.

4.3.1 Research Question One: What perceptions do tutors have about sewing and creative abilities of their students who are pursuing Vocational Skill programme in the Colleges of Education?

The study explored teachers' perceptions on sewing and creative abilities of the students pursuing Vocational Skills in the Colleges of Education. The tutors responses to the various statements presented to them which were related to students' sewing and creative abilities are shown in Table 4.7.

Table 4.7: Tutors' Perceptions related to Students' Sewing Creative Abilities

Variables	Strongly Agree		Agree		Neutral		Disagree		Total	
	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)
Students display original ideas for product development	-	(-)	6	(75.0)	2	(25.0)	-	(-)	8	(100)
Students are fluent in idea generation and development	1	(12.5)	5	(62.5)	2	(25.0)	-	(-)	8	(100)
Student experiment with ideas	-	(-)	5	(62.5)	2	(25.0)	1	(12.5)	8	(100)
Students are impatient with routine and predictable tasks	-	(-)	3	(37.5)	5	(62.5)	-	(-)	8	(100)
Students take a good sense of humour	3	(37.5)	3	(37.5)	2	(25.0)	-	(-)	8	(100)
Students have tremendous capacity for solving unexpected problems	1	(12.5)	6	(75.0)	1	(12.5)	-	(-)	8	(100)
Students are talented in dress-making	1	(12.5)	1	(12.5)	4	(50.0)	2	(25.0)	8	(100)
Students are very imaginative	1	(12.5)	5	(62.5)	2	(25.0)	-	(-)	8	(100)
Students are able to consider issues from several perspectives	1	(12.5)	5	(62.5)	2	(25.0)	-	(-)	8	(100)

The data analysis shown in Table 4.7 showed that the tutor's responses showed different levels of agreement to the various perceptions presented to them. Most of the tutors, 6 (75.0%), agreed that students display original ideas for product development. This implies that the students have the ability to be creative in their sewing and can create designs and patterns in their sewing. This finding supports those of Winebrenner (2001) who asserted that creative students display original ideas and products in sewing.

The results in Table 4.7 indicated that 5 (62.5%) of the tutors agreed that their students are fluent in idea generation and development. The students, thus possess creative ideas to generate and develop fashionable products which may be acceptable to their customers. This outcome of the study also confirms those of Winebrenner (2001) that students who are fluent in their idea generation and development are considered as creative in dressmaking.

It was also found from the results presented in Table 4.7 that majority of the tutors, 5 (62.5%), agreed that their students experiment with ideas. As students experiment with ideas, they are able to come out with creative designs of various types.

Concerning students' impatient with routine and predictable tasks, most of the tutors, 5 (62.5%), were neutral whilst 3 (37.5%) of the tutors agreed that their students were impatient with their routine and predictable tasks. This showed that most of the students were unable to persist on doing certain tasks continuously for a longer period of time. If students could persist on a task for a longer duration, they could have developed a lot of creative and fashionable dresses.

Also, 6 of the tutors representing 75.0% reported that their students have a good sense of humour. This indicated that the students have the ability to design and fabricated fashionable dresses which will use their clients. Similarly, 7 (87.5%) of the tutors agreed that their students have tremendous capacity for solving unexpected problems. This characteristic of the students will make them to come out with new ideas which may be creative and desirable of their clients.

The data analysis in Table 4.7 indicated that 4 out of 8 tutors representing 50.0% were neutral about the talents of their students in dress-making. This shows that half of

the tutors were not sure of the talents of their students in sewing since majority of them have not had any sewing experience before being enrolled into the Colleges of Education in the study area. On the other hand, the results in Table 4.7 showed that 6 (75.0%) of the tutors agreed that their students were very imaginative. This means that when certain creative styles of making dresses are described to them, they can easily imagine it and sew the dresses to suit such style. This confirms the assertion of 6 (75.0%) of the tutors who agreed that their students are able to consider issues from several perspectives. This characteristic of the students could be attributed to their abilities of the students to have creative imaginative.

The above results of the study agreed with those of Winebrenner (2001) who in listing characteristics of many creative thinkers, mentioned great imagination, talented in making creative fashionable dresses and consider issues from several perspectives. These are significant traits exhibited by those who are gifted in creation of desirable fashions in dress making.

4.3.2 Research Question Two: What challenges do both tutors and students face in the teaching and learning of sewing as part of the Vocational Skills Programme in the Colleges of Education?

The study explored tutors' and students' challenges in the teaching and learning of sewing in the Colleges of Education. The tutors challenges enumerated are in Table 4.8.

Table 4.8: Tutors' Challenges in the Teaching of Sewing

Variables	Strongly Agree		Agree		Neutral		Total	
	Freq. n.	(%)	Freq. n	(%)	Freq. n	(%)	Freq. n	(%)
Tutors help students in understanding the concept of preliminary design	3	(37.5)	4	(50.0)	1	(12.5)	8	(100)
Tutors model creative thinking in teaching sewing whilst teaching	-	(-)	5	(62.5)	3	(37.5)	8	(100)
Tutors always remind students to generate their own ideas and solutions	2	(25.5)	5	(62.5)	1	(12.5)	8	(100)
Tutors do not create an environment free of criticisms whilst reminding students to generate their own ideas and solutions	1	(12.5)	5	(62.5)	2	(25.0)	8	(100)
Tutors do not teach with enough TLMs during instruction period	3	(37.5)	3	(37.5)	2	(25.0)	8	(100)
Tutors make questioning a part of daily lecture exchange	1	(12.5)	6	(75.0)	1	(12.5)	8	(100)
Tutors do not help students to reflect upon ideas and concepts from different point of view	1	(12.5)	6	(75.0)	1	(12.5)	8	(100)

As presented in Table 4.8, the tutors either strongly agree, agree or neutral to the challenges presented to them for their levels of agreement. It was found from the data analysis in Table 4.8 that whilst 3 (37.5%) of the tutors strongly agreed that they help their students in understanding the concept of preliminary design, 4 (50.0%) other tutors also agreed to the challenge. Only 1 (12.5%) of the tutors was neutral. This showed that

majority of the tutors, 7 (87.5%), help their students with preliminary design in order for them to be creative in their designing of sewing dresses.

The data analysis showed that 5 tutors representing 62.5% agreed that they model creative thinking among the students while teaching sewing in the classroom. However, 3 (37.5%) of the tutors were neutral. This implies that the tutors tried to develop creativity in the minds of the students. This will help the students to be creative in their design and fabrication of dresses. The issue of creativity is not a challenge to the students. Similarly, 7 *87.5%) of the tutors agreed that they always remind their students to generate their own ideas and solutions. This indicated that the students can come out with their own creative ideas to solve some challenges that may confront them during their sewing.

The results in Table 4.8 indicated that most of the tutors, 6 (75.0%), agreed that they do not create an environment free of criticism whilst reminding students to generate their own ideas and solutions. This showed that the students faced the challenges of conducive environment to do their own thinking to generate creative ideas to solve problems they encounter during their sewing.

The tutors' inability to create conducive environment might be attributed to their poor pedagogical knowledge and innovations. These outcomes of the study are consistent with those of Mberengwa (2004). Mberengwa (2004) asserted that the insufficient quality teachers have the tendency on poor performance. Azih (2001) also found that the quality of tutors in Colleges of Education is so low. This according to Azih (2001) suggests that many of the sewing tutors are deficient in attaining unknowledgeable in skills and accepted teaching practice. Thus, the tutors lacked innovation and resourcefulness.

This results in Table 4.8 also revealed that 6 (75.0%) of the tutors agreed that they do not teach with enough TLMs during their instructional periods. This implies that most of the tutors teach sewing without the use of TLMs for demonstration and practical activities. Thus, most of the lessons taught were abstract to the students which may not promote creativity among could be attributed to the absence of the TLMs or the tutors inability to use the few ones available. This found that inadequate instructional materials and unwillingness of teachers to improvise is a great impediment to sewing instruction. Ukpore (2006) also reiterated that lack of material sis compounded by teachers' lack of interest to use the limited ones available or even improvise simple materials.

It was found in Table 4.8 that 7 (87.5%) of the tutors agreed that they make questioning a part of their daily lecture exchange. This result indicated that there is an interaction between tutors and students through questions and answers during sewing lessons. This finding of the study disagreed with those of Okpala (2005) who observed that only few of the tutors who formulate questions as an effective methods of teaching.

The data analysis presented in Table 4.8 also showed that 7 (87.5%) of the tutors agreed that they do not help students to reflect upon ideas and concepts from different point of view. The tutors inability to help students to reflect upon ideas and concepts could be due to lack of time during their lessons. This outcome of the study agreed with those of Mberengwa (2004) who contended that tutors spent almost all the time of the lessons dictating of notes with no time left for practical work. The tutors were faced with the challenges of creating conducive environment for students to develop their creative abilities, use of TLMs during instruction and giving adequate time to reflect over ideas and concepts in order to develop their creative thinking and abilities.

Table 4.9 presents challenges encountered during their learning of sewing in vocational skills lessons.

Table 4.9: Students' challenges faced during learning of how to sew

Variables	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		Total	
	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)	Freq. n.	(%)
Your tutors help you in understanding the concept of preliminary design	57	(47.5)	47	(39.2)	10	(8.3)	5	(4.2)	1	(0.8)	120	(100)
Your tutors model creative thinking in teaching sewing	20	(16.6)	50	(41.7)	23	(19.2)	16	(13.3)	11	(9.2)	120	(100)
Your tutors always remind you to generate your own ideas and solutions	48	(40.0)	42	(35.0)	19	(15.8)	8	(6.7)	3	(2.5)	120	(100)
Your tutors do not create an environment free of criticisms whilst generating your ideas and solutions	22	(18.3)	63	(52.5)	15	(12.5)	8	(6.7)	12	(10.0)	120	(100)
Your tutors do not teach with enough TLMs during instruction period	35	(29.2)	35	(29.2)	21	(17.5)	16	(13.3)	13	(10.8)	120	(100)
Your tutors make questioning a part of daily instructional exchange	41	(34.2)	45	(37.5)	21	(17.5)	9	(7.5)	4	(3.3)	120	(100)
Your tutors do not-help you to reflect upon ideas and concepts from different points of view	40	(33.3)	61	(50.8)	13	(10.8)	5	(4.2)	1	(0.8)	120	(100)

As presented in Table 4.9, the students' responses were similarly to those of their tutors. It was found that whilst 104 (86.7%) of the students agreed that their tutors help them to understand concepts of preliminary design, only 6 (5.0%) and 10 (8.3%) of the students disagreed and were neutral respectively. This implies that most of the students were helped by their tutors to understand preliminary designs and to develop their abilities to develop their creative skills. This findings is in consistent with those of Olaitan (2001), Osisefo (2004) and Uko-Aviomah (2005) who indicated that students' poor performance at the end of school year is attributable to factors relating to the skill and effectiveness of the teachers. The results found in the study revealed that the tutors help their students to understand concepts of preliminary design which they can develop further their creative skills.

Again, whilst 70 (58.3%) of the students agreed that their tutors model creative thinking during their teaching of sewing, 27 (22.5%) other students disagreed to the assertion whilst 23 (19.2%) others were neutral. This means that the tutors model the thinking of their students to be creative in their design of dresses. This assistance to the students however, cannot make them to be genius and creative problem solvers. This result of the study is in line with those of Damasio (1994) who reported that the vision of the creative genius is a mystical concept.

Similarly, 90 of the students representing 75.0% agreed that their tutors always remind them to generate their own ideas and solutions. Thus, the students were allowed to make efforts to develop their own creative ideas and finding solutions to their various problems encountered in their sewing practices. This outcome of the study agreed with those of Simon (1996) who stated that creativity is an act of the human brain manifested

as a process which allows us to think and solve our problems in a way that is commonly considered to be creative.

The data analysis presented in Table 4.9 also indicated that 85 (70.8%) of the students agreed that their tutors do not create an environment free of criticisms whilst generating their ideas and solutions. This result of the study is in line with the results of the tutors who agreed that they do not create a conducive environment which are free of criticism whilst asking the students to generate their ideas and solutions.

Table 4.9 again revealed that 70 of the students representing 58.3% agreed that their tutors do not teach with enough TLMs during instruction period. This implies that the tutors used lecture method during their teaching. This makes the students recipient of knowledge with little or no involvement in the lesson. This will make most of the things taught to be abstract to the students and therefore hinder creative development of the students.

This result agreed with those of Ogwo and Oranu (2006) who argued that lack of funds coupled with inadequate instructional materials will place serious limitations on what the teachers can achieve.

It was found in Table 4.9 that only 13 (10.8%) of the students disagreed that their tutors make questioning a part of their daily instructional exchange whilst as many as 86 (71.7%) of the students agreed to the statement. The responses provided indicate that the tutors do involve their students in the lesson through questioning techniques of teaching. This outcome of the study is in line with those of the tutors who claimed that they used questioning as part of their daily instruction al exchange.

The data analysis in Table 4.9 also indicated that most of the students, 101 (84.2%), agreed that their tutors do not help them to reflect upon ideas and concepts from different points of view. This means that most of the students were rushed through the lessons without adequate time for the students to grasp the concepts being taught. This will not help the students to develop their creative thinking abilities. The tutors also provided similar responses.

This result is similar to those of Anyakoha (2002) who found that what students learn cannot go beyond what their teachers are able to present to them.

4.3.3 Research Question Three: How can creativity in sewing be promoted among Vocational Skills Students in the Colleges of Education?

Both tutors and students were asked to provide some strategies which could be used to promote creativity in sewing among Vocational Skill students in the Colleges of Education in the study area. The study delved into the strategies that tutors used to promote creativity among students during sewing lessons. Table 4.10 presents the various strategies enumerated by the tutors.

Table 4.10: Tutor's Strategies to Promote Creativity among Students during Sewing lessons

Strategies	Often		Sometimes		Never		Total	
	Freq. n.	(%)	Freq. n	(%)	Freq. n	(%)	Freq. n	(%)
Keep creative journal for personal observation	1	(12.5)	7	(87.5)	-	(-)	8	(100)
Encourage students to do something different everyday	3	(37.5)	5	(62.5)	-	(-)	8	(100)
Get goals for students	2	(25.5)	6	(75.0)	-	(-)	8	(100)
Take students out to observe other creative works	1	(12.5)	6	(75.0)	1	(12.5)	8	(100)
Group students out to observe other creative works	2	(25.0)	3	(37.5)	-	(-)	8	(100)
Engage students in creative work in class	-	(-)	8	(100.0)	-	(-)	8	(100)
Mentor students with a creative professional	3	(37.5)	3	(37.5)	2	25.0)	8	(100)
Recognize and value creativity in Students	1	(12.5)	7	(87.5)	-	(-)	8	(100)
Encourage students to be enthusiastic about their creativity work	3	(37.5)	5	(62.5)	-	(-)	8	(100)

As shown in Table 4.10, 7 (87.5%) of the tutors stated that they sometimes keep creative journals for observation by the students, whilst 1 (12.5%) tutor indicated that creative journals are often kept for students observation. In addition, 3 (37.5%) other tutors reported that they encourage students to do something different often everyday whilst as many as 5 (62.5%) tutors stated that they sometimes encourage students to do something different every day. This means students should be assigned tasks everyday to perform. The continuous practices will help the students to build on each day's task and therefore become creative in sewing dresses.

Also, 2 (25.0%) of the tutors stated that as a strategy, they set goals for the students often to achieve whilst 6 (75.0%) others tutors stated they sometimes set goals for the students to achieve. When goals are set for the students, they are encouraged to work towards the set goals.

In addition to the above strategies, 6 (75.0%) of the tutors stated that they sometimes take students out of the colleges to observe creative works in some experienced sewing centres. This activity would reduce classroom boredom and enabled students to see realities of creativity in sewing dresses. This will provided a stimulus for the students to design their own creative styles.

Table 4.10 indicated that 6 (75.0%) of the tutors sometimes group students to perform certain tasks based on their own interest. This strategy would help the students to learn from each other if the grouping is well structured based on different abilities. Aside the grouping of the students all 8 (100.0%) of the tutors said they sometimes engage their students in creative work in class. The engagement of the students in creative work in the classroom would encourage the students to learn from each other and bring about collaboration among the students.

Again, 3 (37.5%) each of the tutors indicated that they often and sometimes mentor students with a creative professional respectively. Thus, students are encouraged to learn from professionals who are well vested in the creative design of dresses. Another strategy given by the tutors was recognition and value of creativity in students, 7 (87.5%). This implies that tutors appreciate the various efforts that students put into their skills of creativity. Again, 5 (62.5%) of the tutors indicated that they encourage students to be enthusiastic about their creative work sometimes whilst 3 (37.5%) other tutors said

they do that often when students appreciate their work, they will put in more efforts to do better.

The various strategies put forward by the tutors are consistent with those of Fleith (2000). It suggested that cluster grouping of students based on interest, mentoring with creative professional recognizing and valuing creativity in students and asking students to use enthusiastic about their work. He further stated that strategies such as keeping creative journals for observation, asking students to do something new every day, setting goals for students and engaging students in field trips can help promote creativity among students.

Aside the above strategies, the others strategies provided by the tutors are shown in Table 4.11.

Table 4.11: Other strategies to promote creativity among students

Strategies	Frequency (n)	Percentage (%)
Provision of tools for practical work	2	25.0
Practical assignments given to students	2	25.0
Creation of students' own styles	1	12.5
Motivation of weak students	1	12.5
Exhibition of students' work	1	12.5
Setting of sewing clubs in the Collages	1	12.5
Total	8	100.0

Table 4.11 showed that 2 (25.0%) tutors each suggested that provision of tools for practical work and practical assignments should be given to students as strategies to promote creativity among students. Similarly, 1 (12.5%) tutor each also suggested the following strategies to be used: creation of students' own styles, motivation of weak

students, exhibition of students' work for public appraisal and setting up of sewing clubs in the Colleges of Education. If the above strategies are implemented and put in place, it will enhance skills development and promote creativity among the students.

Students were also asked to suggest strategies that can be used to promote their creativity in sewing. Table 4.12 provides the various strategies enumerated by the students.

Table 4.12: Students' Strategies to promote creativity in sewing among them

Type of Strategies	Frequency (n)	Percentage (%)
Provision and use of materials to teach	42	35.0
Practical lessons should be conducted	25	20.0
Motivation of teachers and students	10	8.3
Qualified tutors should be employed	7	5.8
Use of appropriate pedagogical	7	5.8
Change of students' attitude	6	5.0
Increase of periods on the time table	5	4.2
Supervision of tutors' work	3	2.5
Students should be given practical assignment	3	2.5
Engage in field trips	3	2.5
Provision of workshop	3	2.5
Mentoring of students with professionals	2	1.7
Exhibition of students' work	2	1.7
Provision of textbooks	1	0.8
Feedback to students	1	0.8
Total	120	100.0

The data analysis presented in Table 4.12 indicated that whilst as many as 42 (35.0%) of the students suggested that materials should be provided and used by their tutors during their teaching, 25 (20.8%) other students suggested that practical lessons should be conducted and used as a strategy to promote creativity among the students and help them to inculcate interest in the sewing industry.

Table 4.12 also showed that 10 (8.3%) and 7 (5.8%) students each suggested motivation of tutors and students in a form of rewards and praises, employment of qualified tutors who are well trained to use appropriate pedagogical procedures should be adopted as a strategy to enhance creative skills development of the students. In addition, 6 (5.0%) and 5 (4.2%) other students advocated the change of students' negative attitude towards sewing and an increase in the number of periods to cater for practical work of students should be a strategy to enhance students' creativity development.

It could also be seen from the data analysis presented in Table 4.12 that 3 (2.5%) students each suggested the following strategies should be employed: supervision of tutors' work, students should be given practical assignment, engage students in field trips and provision of well furnished workshops where students can go for practical work. If the above strategies are employed, it will help students to be creative. Also, 2 (1.7%) students each inculcated that mentoring of students with professionals and exhibition of students' work for appraisal should be strategies that can be employed to promote creativity among students. Aside the above strategies, 1 (0.8%) students each also provided the following strategies provision of textbooks and feedback to students need to be done to create awareness among the students their weaknesses and strengths. This will show the students what they are to do the next time.

The different strategies provided by the students are similar to those mentioned by Fleith (2000) discussed under the tutors' suggestions. The issue of creativity needs to be focused in the sewing industry if the above strategies are employed especially in formal education.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the study and major findings arrived at from the study. Conclusions and recommendations as well as suggested areas for further research were also included in this chapter.

5.2 Summary of the Study

This study surveys teaching and promoting creativity in sewing among vocational skill students in the Colleges of Education in the Ashanti Region of Ghana. The study specifically examined tutors' perception of sewing and creative abilities of their students, looked at the challenges of both tutors and students in the teaching and learning of sewing as part of the Vocational Skills programme and identified various strategies to use in promoting creativity among students during sewing lessons in the Colleges of Education.

The study used description survey design because of its relevance to the study. Simple random sampling technique was used to select 120 students from four Colleges of Education and eight tutors who were purposively sampled from the four Colleges of Education for the study. Two sets of self-designed questionnaires were used to collect data from both students and tutors. The data collected with both questionnaires were analysed using SPSS, version 16.0 and descriptive statistics in a form of frequencies and percentages were computed. The computed results were presented using tabular data format for discussions in chapter four.

5.3 Major Findings

The main findings of the study were presented in line with the research questions:

It was found that 6 (75%) of the tutors perceived that majority of their students display original ideas for product development, fluent in idea generation and development, experiment with ideas and have a good sense of humour. The study also revealed that the tutors perceived their students to have tremendous capacity for solving unexpected problems, is talented in dress-making, very imaginative and is able to consider issues from several perspectives.

The results of the study showed that the major challenges of both tutors and students were tutors do not create an enabling environment free of criticisms whilst reminding students to generate their own ideas and solutions; tutors do not teach with enough TLMs during instruction period; tutors do not help students to reflect upon ideas and concepts from different point of view.

Concerning strategies to promote creativity among the students, the tutors suggested that they sometimes keep creative journal for students' observation, encourage students to do something different every day, get goals for students and take students out to observe other creative works. Other strategies mentioned were grouping students to perform certain tasks based on their interest, engage students in creative work in class, mentor students with a creative professional, recognize and value creativity in students and encourage students to be enthusiastic about their creativity work.

The strategies suggested by the students were provision and use of materials to teach, practical lessons should be conducted, motivation of teachers and students as well as qualified tutors should be employed. In addition, the students suggested the use of

appropriate pedagogical methods to teach, change of students' attitude, increase of periods on the time table, supervision of tutors' work, students should be given practical assignments, engage in field trips and provision of workshop for practical activities.

5.4 Conclusions

Sewing involves creativity and fashion. Once you know how to sew and create a pattern, build your design. You might want to use a dressmaking dummy to form a basic fit. Acquire basic sewing skills so that you can bring your designs to life. Learn how to sew using patterns so that you can eventually be creative and design your own creative patterns. As your talents progress, you might find yourself becoming inspired by different stitches or techniques that one employs.

The fashion world has been deeply influenced by the emergence of creativity. The behaviour of consumers and producers has changed extensively in response to the rhythms and changes of creativity, a good that is both rare and inexhaustible. The elaborate detail and intricate of dressmaking required an enormous amount of painstaking and creativity. All clothes are not only handmade but also custom-made. Each garment is made to fit the customer's exact requirement. Dresses are sewn by to suit consumers design and creativity. The identities of personal dressmakers are guarded by their creativity. Each and every student in a College of Education should be provided the most ideal opportunity for intellectual and creative development. The needs of the gifted student need not be ignored in the interest of equality. At the same time, other students, gifted or not, need to have their needs addressed as well. It is also important to celebrate and praise each student for his/her individual achievements. At the same time, it is

important to keep academic expectations and creativity appropriately high for all students.

It is hoped that development of a measure of the affective and psychomotor domains will affect the perceived self-efficacy levels and entice educators to include affective and psychomotor outcomes as they develop the sewing curriculum. Highlighting the affective and psychomotor domains and its importance in internalizing learning is one contribution of this study to improve knowledge. The measures created for the affective and psychomotor domain levels and self-efficacy levels are valid and reliable. These are valuable contributions to make vocational education employable.

5.5 Recommendations

From the findings and conclusions arrived at in this study, the following recommendations are made:

1. It was found that students do little or no practical activity. Sewing lessons should be of more practical activities in order to encourage the students to learn through practice or doing.
2. The results of the study revealed that the tutors use little or no materials for instruction. The Colleges and the Government should do well to provide teaching and learning materials for the tutors to use for instruction of the students. In addition, the tutors should try to improvise and use waste materials in the environment for instruction.
3. The results of the study showed that the tutors have identified the various preliminary creative skills of their students. The tutors should endeavour to build on those initial

creative skills by giving students practical assignments in order to perfect those creative skills.

4. The use of field trips should be encouraged during instruction for the students to observe different creative patterns and designs as well as to come face to face with real life situations of creativity in sewing.
5. The results revealed that the tutors were not able to create environment which were free of criticisms. It is recommended that tutors should do well to provide conducive environment which will promote individual students to generate their own creative thinking and ideas.
6. In order to promote creativity among the students, exhibition of students' creative works as well as inter-colleges competitions should be organized annually to bring about enthusiasm among the students.

5.6 Suggestions for Further Studies

Further research might focus on a larger or different Colleges of Education outside the Ashanti Region, because the small sample size was considered as a limitation of this study. Further research could also be done to find out the types of materials that are available in the Colleges of Education for instruction. The creativity level and mastery of skills of sewing of the students need to be assessed and studied in details.

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APPENDIX A

QUESTIONNAIRE FOR TUTORS

This questionnaire is meant to survey on teaching and promoting creativity in sewing among vocational skill students in the Colleges of Education in the Ashanti Region of Ghana.

Instruction: Please read through the following items and provide your responses as required. Responses provided would be treated with uttermost confidentiality.

A. Demographic Characteristics of the Tutors

1. Name of College……
   a) Mampong Technical College [ ]
   b) Akrokerri College [ ]
   c) Wesley College [ ]
   d) Agogo Presbyterian College [ ]
2. What is your gender?
   a) Female [ ]
   b) Male [ ]
3. What is your highest academic qualification?
   a) First Degree [ ]
   b) Second Degree [ ]
   c) Any others (please specify)……

4. How long have you been teaching Vocational Skills in our College of Education?

   a) 1 – 5 years [ ]

   b) 6 – 10 years [ ]

   c) 11 – 15 years [ ]

   d) 16 – 20 years [ ]

   e) Above 20 years [ ]

B. Tutor's Perception of Creative Characteristics of their Students

Please use the following four-point liker type scale to indicate your perception of the creative characteristics of your students in sewing classes in the Vocational Skills programme. Use strongly agree (4 = SA), Agree (3 = A), disagree (2 = D) and strongly disagree (1 = SD) for your responses.

Tick [√] only one of the options that is most appropriate to you for each item.

Statement	S A	A	D	S D
5. Students display original ideas of products				
6. Students are fluent in idea generation and development.				
7. Students experiments with ideas.				
8. Students have a good sense of humour.				
9. Students are impatient with routine and predictable tasks.				
10.Has a tremendous capacity for solving unexpected problems				
11.Students are talented in dress making.				
12.Students are very imaginative.				
13.Students are able to consider issues from several perspectives.				

C. Tutors' Challenges towards Creative Development in Sewing

Show the extent to which you agree or disagree with the following statements of tutors' challenges of teaching sewing by ticking [√] the appropriate column in each case. Use the following five point Likert scale for your responses: Strongly agree (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2, and Strongly Disagree (SD = 1).

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
14. Tutors help your students in understanding the concepts of preliminary design					
15. Tutors model creative thinking in teaching sewing whilst teaching.					
16. Tutors always remind your students to generate their own ideas and solutions					
17. Tutors create an environment free of criticism whilst reminding students to generate their own ideas and solutions.					
18. Tutors teach enough TLMs during instruction period					

D. Strategies to promote creativity among students

How often do you practice the following as part of your sewing classes in your college. Use often (3), sometimes (2) and never (1) for your responses.

Statements	**Often**	**Sometimes**	**Never**
19. Keep creative journal for personal observation.			
20. Encourage students to do something different every day.			
21. Get goals for students.			
22. Take students out to observe others creative works.			
23. Group students to perform certain tasks based on their interest.			
24. Engage students in creative work in class.			
25. Mentoring students with a creative professional.			
26. Recognizing and valuing creativity in students.			
27. Encouraging students to be enthusiastic about their creativity work.			

E. Suggestions for Promoting Creativity in Sewing

28. Suggest ways which tutors can use to help promote more effective creativity development in sewing by students in the Colleges of Education.

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APPENDIX B

QUESTIONNAIRE FOR STUDENTS

This study is on a survey on teaching and promoting creativity in sewing among Vocational Skill Students in Colleges of Education in the Ashanti Region of Ghana.

Instruction: Please read through the items, on the questionnaire and provide appropriate answers as it is related to you. Answers provided would be treated as confidential materials.

Section A: Background Information of Students

1. Name of College
   a. Mampong Technical College [ ]
   b. Akrokerri College [ ]
   a. Wesley College [ ]
   b. Agogo Presbyterian College [ ]
2. What is your age?
   a. 20 – 25 years [ ]
   b. 27– 30 years [ ]
   c. 31– 35 years [ ]
   d. Above 36 years [ ]
3. What is your gender?
   a. Male [ ]
   b. Female [ ]

4. Have you had any sewing experience before being enrolled into the College of Education to pursue Vocational Skill Programme?

   a) Yes [ ]

   b) No [ ]

5. Have you had any informal sewing experience?

   a) Yes [ ]

   b) No [ ]

B. Students' Challenges towards Creative Development in Sewing

Show the extent to which you agree or disagree with the following statement of students' challenges towards the learning of sewing in Colleges of Education by ticking [√] the appropriate column in each case. Use the following five point Likert scale for your responses: Strongly agree (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2, and Strongly Disagree (SD = 1).

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
6. Your tutors help you in understanding the concept of preliminary design.					
7. Your tutors model creative thinking in teaching sewing					
8. Your tutors always remind you to generate your own ideas and solutions.					
9. Your tutors create an environment free of					

criticisms whilst generating your ideas and solutions.					
10. Your tutors teach with enough TLMs during instruction period.					
11. Your tutors make questioning a part of daily instruction exchange.					
12. Your tutors help you to reflect upon ideas and concepts from different points of view.					

C. Suggestions for Promoting Creativity in Sewing

12. Suggest four ways which can help students develop more creativity in sewing in the Colleges of Education.

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