UNIVERSITY OF CAPE COAST

MODERATING ROLE OF STUDENTS' ACADEMIC SELF-CONCEPT ON GENDER, ETHNIC STEREOTYPES AND ACADEMIC PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN TEMA

BY

LADY BARBARA GAISIE

2020

UNIVERSITY OF CAPE COAST

MODERATING ROLE OF STUDENTS' ACADEMIC SELF-CONCEPT ON GENDER, ETHNIC STEREOTYPES AND ACADEMIC PERFORMANCE OF SENIOR HIGH SCHOOL STUDENTS IN TEMA

BY

LADY BARBARA GAISIE

Thesis submitted to the Department of Education and Psychology, the Faculty of Educational Foundations, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy Degree in Educational Psychology

JANUARY, 2020

DECLARATION

Candidate's Declaration

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

Candidate's Signature: ..... Date: .....

Name: ……..

Supervisors' Declaration

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

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

Name: ……..

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

Name: ……..

ABSTRACT

The study examined the moderating role of students' self-concept on gender, ethnic stereotypes and academic performance in Tema. The study was guided by five (5) research questions. The study adopted descriptive survey research design. Through multistage sampling, the research sample was drawn from three (3) public Senior High Schools out of seven (7) in the Tema Metropolis. A total of 354 Senior High School students made up the sample of the study. Data was collected through a 21-item self-concept questionnaire adapted from Cambra and Silvestre (2003), a 30-item ethnic and gender stereotypes questionnaire and an adapted standardized mathematics and English language test items. In analysing the data, mean and standard deviation, frequency counts and percentages, Pearson correlation and hierarchical multiple regression were used to analyse data collected from the field. The findings of the study revealed that, participants of this study were aware of the complexity of ethnic and gender differences in stereotypes and academic performance. A statistically significant negative relationship between stereotype and academic performance of students was established. The study also revealed that, self-concept played a minimal role in moderating the influence of gender and ethnic stereotypes on the academic performance of students. Considering the implicit message conveyed by negative stereotypes on students' academic performance, it was recommended that, teachers as well as parents should encourage positive mind-set among students to accept diversity in gender and ethnicity.

ACKNOWLEDGEMENTS

I am thankful to God for His abundant blessings throughout my study. I am grateful to my husband Ato Gaisie and my sister Doreen Ashiboe-Mensah for their love, financial support and prayers.

I commend my supervisors Dr. Stephen Baafi-Frimpong and Dr. Mark Owusu Amponsah for their expert perusal, wisdom and patience in guiding my thesis work.

I express my sincerest gratitude to the Dean and the School of Graduate Studies for their support.

Special thanks go to my friends and study mates; Chris, Kafui, Beatrice, and Rowland for their encouragement and friendly support.

I also acknowledge all the schools that participated in this study for their timeless willingness to commit their time and efforts to this study.

DEDICATION

To my lovely husband Ato Gaisie and my deceased sister Agnes Ivy Mensah

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

KEY WORDS

Self-concept

Moderating Role

Gender Stereotype

Ethnic Stereotype

Mathematics

English Language

Senior High School (SHS)

CHAPTER ONE

INTRODUCTION

Introduction

The science of learning is an interdisciplinary field which is of interest especially to educators across the globe who often seek to understand the cognitive and physiological processes underpinning students' development and academic achievement (Buckley & Doyle, 2016).

What motivates people to achieve is one of psychology's typical questions. It is believed that such motivation is often dependent on whether an endeavour is interrelated to one's sense of identity and/or feelings of belonging. One's family, racial or ethnic group, gender and religious affiliation could be key sources of self-worth and social belongingness and hence provide powerful drives for achievement (Cohen, Garcia, Apfel & Master, 2006).

Adolescents in Senior High School become more mindful about their self-identity which is mainly influenced by the way they are perceived by their peers based on physical appearance, gender, ethnic group, religion and socio-economic background. These perceptions are often engineered by the stereotypes which are interconnected to the categories listed earlier. Some studies have revealed that discrimination constitutes an imperative stressor that undermines the well-being of its targets (Miller & Kaiser, 2001; Schmitt & Branscombe, 2002). Research has further revealed that factors such as rejection sensitivity (Mendoza-Denton, Purdie, Downey, Davis, & Pietrzac,

2002), group identification (Major, Quinton & Schmader, 2003; Operario & Fiske, 2001), the endorsement of legitimizing ideologies (Major, Gramzow, McCoy, Levin, Schmader & Sidanius, 2002) and optimism (Kaiser, Major, & McCoy, 2004), can all modify how people perceive and respond to prejudice and stereotype and this may have implications for academic performance.

Background to the Study

In every social environment, no psychological state or performance occurs in isolation; it interacts with other psychological and environmental factors often through recursive cycles to affect the overall academic performance of a student (Cohen & Gracia, 2005).

Chickering and Reisser (1993) opined that, development consist of the ability to assess one's self-concept based on information from others. Adolescents face a number of unique developmental challenges, including coping with abrupt changes in their bodies, managing their sexual interests, forming new relationships, and planning their academic and occupational future.

Senior High School is an important period to examine the role of stereotype endorsement and self-perceptions of students. This is because adolescence is a crucial time for identity development in general; moreover, adolescents are also forming their ethnic and gender identities during this period (Erikson, 1968). In Senior High Schools, students put together feedback from grades, teachers and coaches, friends and loved ones to form a fairly accurate picture of how others see them (Erikson, 1968).

Usually when students start Senior High School, their personal identity, or self-definition, includes identifying with school achievement (Verhoeven, Poorthuis & Volman, 2019). Most of them initially enjoy school and are motivated to do well because it makes them feel good about themselves, until they encounter negative experiences in school (i.e., teacher bias, lack of culturally relevant material, etc.) and constant bombardment of negative societal messages about their ethnic group, or gender which may create a pervasive awareness of negative stereotypes associated with their ethnic group or gender (Cokley, 2002).

It has been well documented in several studies that the transition to Senior High School is accompanied by a decrease in self-perceptions and motivation for many adolescents (Barber & Olsen, 2004; Eccles,Wigfield, Midgley, Reuman, Mac Iver, Feldlaufer, 1993; Seidman, Allen, Aber, Mitchell, & Feinman, 1994; Simmons, Rosenberg, & Rosenberg, 1973).

Rowley, Kurtz-Costes, Mistry and Feagans (2007) argued that, in contrast to Junior High School, Senior High School students have greater autonomy and responsibility, and may have relationships with teachers that are less nurturing and personal. The students are likely to encounter greater ethnic and social class diversity in the student body. These added stressors, along with a growing awareness of negative views of their social group and gender, may account for some of the decline in self-perceptions and motivation among some students in Senior High Schools. Experience with the Senior High School social environment may lead to an increase in the endorsement of stereotypes about ethnic and gender differences in academic abilities. In

consequence, students' self-perceptions affect their performance positively or negatively both in and out of the classroom (Rowley, et al, 2007).

Aside developmental factors at play, individual attributes might also influence the extent to which ethnic stereotypes shape the identity beliefs of students. In particular, stereotype endorsement might be related to an individual's sense of self, only to the extent that the individual feels strongly connected to the group for whom the negative stereotype is ascribed (Okeke, Howard, Kurtz-Costes & Rowley, 2009).

A principal lesson of recent study conducted by Turner and Onorato, (2014) is that, social identities, such as one's family, ethnicity or gender, may interact with other factors such as self-concept and stereotypes in some situations to affect academic performance. Block, Koch, Liberman, Merriweather and Roberson (2011) examined factors that can trigger stereotype threat and identified a fear of confirming a negative stereotype about one's group. This may inhibit performance by raising stress and increasing mental load (Schmader & Johns, 2003).

Social identities may affect the motivation to achieve through interaction with a sense of belonging; belonging uncertainty, doubt as to whether one will be accepted or rejected by key figures in the social environment to which one may belong, can prove critical if rejection could be based on one's negatively stereotyped social identity (Walton & Cohen, 2007b; see also Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). Identity formation is particularly important during adolescence; this is mainly because during this period, the youth detach themselves from parents through increasing expressions of self-sufficiency (Erikson, 1968). As a result of these

developmental changes in knowledge about their society and ethnic-related attributions, stereotypes might have different influences on students as they proceed through adolescence.

The way that students - whether conceptualised at individual, group, organisational, or inter-organisational levels, identify themselves and each other, seem likely to be relevant in their ability to develop productive mutual relationships (Beech & Huxham, 2003). If they discover cues that confirm the existence of a stereotype threat, such as an ethnic or gender bias, an appraisal phase may tend to follow. In this phase, individuals assess whether they have the ability and will-power to deal with the threat. Performance may suffer if students begin to think that these stereotype threats exceed their ability or desire to overcome them. Nonetheless, if individuals think that they can overcome the threat, a challenge response is likely, in which performance is maintained or improved. For instance, identifying with one's group can be a psychological resource that offsets the threat of negative stereotypes (Cohen & Garcia, 2005).

On the other hand, recursion may also occur in the vigilance stage. If people perceive bias, their level of vigilance may rise, intensifying sensitivity to bias-confirming cues. This repeating cycle could not only primarily undermine trust but also make trust increasingly difficult to regain. Other repeating cycles may occur in interaction with the environment. For instance, an underperforming student may be viewed by teachers as less able, or be assigned to a lower academic track, or affiliated with lower-performing peers, any of which could further inhibit performance and in turn increase psychological threat (Cohen, Garcia, Apfel & Master, 2006).

Stereotype threat occurs when individuals become aware of negative stereotypes related to a group identity, which would usually produce a heightened sense of anxiety for fear of behaving in a way that would seem to validate the stereotype (Steele & Aronson, 1995). In general, the conditions that produce stereotype threat are ones in which a highlighted stereotype implicates the self, through association with a relevant social category (Marx & Stapel, 2006; Marx, Stapel, & Muller, 2005). There are factors which may play a role in one's "stereotype vulnerability" (Aronson, Fried & Good, 2002). These factors include: group membership, domain identification, group identification, internal locus of control/proactive personality, and stereotype knowledge and belief, among others.

When one's stereotyped group status is made pertinent or noticeable by situational features, stereotype threat and performance decrements are more likely. Since stereotype threat arises from negative performance expectations in a specific domain, any group can show evidence of underperformance if the situation brings attention to the threatened identity. In other words, although stereotype threat tends to be experienced by members of some groups more than others, it would be inappropriate to conclude that it is only experienced by members of traditionally stigmatized or stereotyped groups.

It has been posited that stereotype threat can impede performance by increasing anxiety, which then reduces cognitive energy available to allocate to an individual's performance of a task (Steele & Aronson, 1995). Specifically, working memory is reduced in stressful situations because stress consumes cognitive resources (Schmader & Johns, 2003). Rather than having the ability to dedicate all of one's cognitive energy to a task, the individual is

conflicted and divides the energy between performing the task and simultaneously conducting a self-assessment to determine if a stereotype is accurate or not. This cognitive multi-tasking may ultimately reduce an individual's speed and accuracy in performing a task (Steele & Aronson, 1995; Steele & Ambady, 2006).

Studies have established that students endorse traditional academic ethnic group stereotypes, using indirect measures that examine beliefs about the academic competence of different ethnic groups (Hudley & Graham, 2005). Hudley and Graham (2005) examined race stereotype beliefs in African American, Latino, and White junior high school students. Participants heard descriptions of high and low achieving students and chose a photo (from a series of photos of varying ethnicities and genders) that best represented each hypothetical student. Youth of all ethnic/racial groups associated ethnic minority males with scenarios of academic disengagement.

When an in-group member's stereotypic beliefs, influence an out-group member to act in accordance to the biased expectations of the out-group member then, an effect of a self-fulfilling prophecy may be said to have occurred. This 'self-fulfilling prophecy' could have a clear application to group-relevant behaviour. A person may treat an in-group member more favourably than an out-group member. Specifically, the out-group member may exhibit subtle unfriendly characteristics towards an out-group member, such as a decrease in warmth, differences in facial expression and tone of voice (Sue, Capodilupo, Torino, Bucceri, Holder & Nadal, 2007). This difference in interaction may lead the target to experience a state of cognitive dissonance which may then influence the target to adjust their behaviour in

order to conform to the biased expectation of the perceiver (Madon, Guyll & Spoth, 2004). If the perceiver has a belief about a particular group based on a stereotype the manipulated behaviour then reinforces the inaccurate belief. The effect of these two constructs may be more powerful if there are several individuals with the same biased belief about a person from a different group. In this case, the stereotype functions as a social expectation which may serve as a powerful tool to promote conformity in the out-group member, (Sprott, Spangenberg & Fisher, 2003).

Empirically, gender and ethnic stereotypes have been found to have a relationship with academic performance, mostly poor performance. Schmader, Johns and Barquissau (2004) found that, women's personal endorsement of gender stereotypes has been linked with poor performance and reduced interest to pursue math-intensive careers. Schmader and Johns (2003) opined that, women exposed to stereotype threat had a reduction of working memory capacity, which resulted in lowered performance on a math test. Beilock, Rydell and McConnell (2007) also discovered that stigmatized individuals under stereotype threat have interfering thoughts that reduced their working memory. Spencer, Steele, and Quinn (1999) proposed that, the instigation of a negative stereotype regarding a minority group will interfere with the performance of group members in stereotype-relevant domains. Studies consistent with the stereotype-threat model have recorded performance deficits under stereotype threat for several minority groups, including ethnic minorities (Steele & Aronson, 1995), women, girls (Ambady, Shih, Kim & Pittinsky, 2001), students from low socio-economic backgrounds (Croizet & Claire, 1998), and old people (Levy, 1996).

Considering the empirical negative effects gender and ethnic stereotypes have on academic performance, there is the need to identify cognitive inferences that can moderate the effects of stereotype on individuals. Marsh and Craven (2006) identified that, self-concept is a desirable outcome in many disciplines of psychology, such as educational, developmental, sport-exercise, health, social, and personality psychology, as well as in a broad array of other social science disciplines.

Academic self-concept has been found to be a remarkably consistent correlate of academic performance (Awad, 2007; Cokley 2000a; Cokley 2002b; Gerardi, 1990). In studies with African American students, the relationship of academic self-concept and grade point average has been high, with reported correlations of r = .46 (Cokley 2000a, 2002b).

Marsh and Craven (1997) affirm that, improving self-concept is a vital goal, and that self-concept is a significant mediating variable that influences a variety of desirable outcomes, as well as academic achievement; people who view themselves to be more effective, more confident, and more competent achieve more than people with less positive self-perceptions

It is against this background that this study was conducted to investigate the moderating role of self-concept on gender and ethnic stereotypes and academic performance.

Statement of the Problem

Identification of strategies to enhance students' academic performance has continued to be a prominent concern globally over the past years (McInerney, Cheng, Mok & Lam, 2012). Efforts have been made by successive governments of Ghana to improve academic achievement of

students through infrastructural development in the education sector among other policy initiatives (Ankomah, Koomson, Bosu & Oduro, 2005). Regardless of all these efforts, academic achievement still remains low at the High School level (Gulati, 2008).

Achievement-related behaviour represents a particular set of social behaviours. They are most often visible in large, organized and regulated social contexts (e.g. schools) that have demonstrable social networks and hierarchies of peer groups (Peshkin, 1991). Thus, it is not unreasonable to expect achievement related behaviours (one form of social behaviour) to be quite susceptible to the influences of cultural stereotypes (one type of social knowledge). In multi-ethnic countries, cultural stereotypes of marginalized groups may have quite negative consequences.

Stereotypes as shared beliefs about individual (s) is a psychological construct which may affect the performance of tasks. Appel and Kronberger (2012) indicated that, stereotypes include the underperformance of specific subgroups in certain cognitive tasks. According to them, some ethnic minorities (e.g., African Americans and Hispanic Americans in the USA) are perceived as less intelligent, Turkish immigrants in Germany are perceived as rather "primitive" and "incompetent", and women are perceived as less talented in mathematics and technical sciences (Kahraman & Knoblich 2000). These stereotypes are no less different from some of the stereotypes held against some of the ethnic groups in Ghana. For instance, some ethnic groups in Ghana are perceived to be more academically inclined while others are more interested in the establishment of business and making money (Lawson, Akotia & Asumeng, 2014). Steele, Spencer, and Aronson (2002) argued that,

underachievement is a psychological response to stereotype that characterizes females as inferior to males on a specific task such as mathematics in a school-specific domain. Martin, Carlson and Buskist (2007) also mentioned that, negative stereotype is a cognitive and emotional burden that hinders performance and constantly yields negative expectations.

Studies have been conducted to determine the direction of the causal relationship between academic self-concept and academic performance. For example, Marsh, Trautwein, Ludtke, Koller and Baumert (2005), suggested that improving students' academic performance without enhancing their academic self-concept is most likely to lead to only short-term achievements. Liu (2009) revealed that, students who with weak academic performance may develop less positive academic confidence, which may lead to lower academic self-concept. Liu (2009) further showed that, students with less positive academic self-concept are more likely to lack learning motivation, which may result in poor academic performance. Academic self-concept and academic performance tend to affect and determine each other (Dramanu & Balarabe, 2013). Academic self-concept is a cause as well as an effect of academic achievement in that, prior academic self-concept influences subsequent academic achievement beyond the effects of prior academic achievement (Liu, 2009).

Studies such as Partey and Yidana (2018); Kugbey, Mawulikem and Atefoe (2015); Affum-Osei, Adom, Barnie and Forkuoh (2014); Laryea, Saani and Dawson-Brew (2014); Dramanu and Balarabe (2013); have well established the influence of self-concept and on the academic performance of students. Likewise researches such as Igbo, Onu and Obiyo (2015); Appel and

Kronberger (2012); Gillen-O'Neel, Ruble and Fuligni (2011) have indicated the effect of stereotype on students' academic performance and academic self-concept. However, these studies did not critically examine the moderating role of self-concept, on stereotypes and academic performance of students. This gap makes it imperative to investigate stereotypes, academic performance and the moderating role of self-concept.

Purpose of the Study

The purpose of this study was to examine the moderating role of students' academic self-concept on gender and ethnic stereotypes and academic performance.

Specific objectives of this study were to;

1. determine the level of students' academic self-concept
2. establish the relationship between academic self-concept and academic performance of students.
3. find out the level of students' gender and ethnic stereotypes.
4. establish the relationship between gender stereotype, ethnic stereotype and academic performance.
5. investigate how academic self-concept will moderate the relationship between gender and ethnic stereotypes on academic performance of students.

Research questions

1. What is the level of academic self-concept of Senior High School students?
2. What is the relationship between academic self-concept and academic performance of students?

3. What is the level of Senior High School students' gender and ethnic stereotype?
4. What is the relationship between gender stereotype, ethnic stereotype and academic performance of students?
5. What is the moderating role of self-concept on the relationship between gender and ethnic stereotypes on the academic performance of students of Chemu and Tema Technical Institute?

Significance of the Study

This study provides insightful information and recommendations for stakeholders in education to formulate policies that will help teachers and students to enhance students' self-concept to improve academic performance. The study also serves as a guide for future research by potential researchers.

Delimitation

This study focused on the influence of gender and ethnic stereotyping on academic performance of public Senior High Schools students in the Tema metropolis and the moderating role of self-concept, but did not include labelling and prejudice. Students' academic performance was limited to performance in only English language and mathematics. The study was conducted in the Tema metropolitan assembly of the Greater Accra, region of Ghana. Only students in form two were selected to participate in the study.

Limitations

Although all the schools selected for the study had earlier consented to be part of the research, one of the major challenges of this study was getting participants to respond to the questionnaires during data collection. Apart from the difficulty associated with getting participants from the various courses, to

respond to the questionnaire, the issue of venue (classroom) became another important hurdle to cross, especially with Tema Technical Institute. At the time of data collection Tema Technical Institute faced a challenge of inadequate furniture for students. This made the data collection period and process longer than estimated.

Definition of Terms

Stereotype refers to a widely held but fixed and oversimplified image or idea of a particular type of person/group or thing.

Stereotype threat is defined as a situational predicament in which individuals are at risk of confirming negative stereotypes about their group. It is the resulting sense that one might be judged in terms of negative stereotypes about one's group instead of on personal merit.

In-group; an exclusive, typically small, group of people with a shared interest or identity eg "an in-group signal of ethnic identity"

Out-group; a group of people not belonging to the group evolutionary relationships are being investigated. Such a group is used for comparison, to assess which characteristics of the group being studied are more widely distributed and may therefore be older in origin.

Minority-group; Sociologist Louis Wirth defined a minority group as “a group of people who, because of their physical or cultural characteristics, are singled out from the others in the society in which they live for differential and unequal treatment, and who therefore regard themselves as objects of collective discrimination”.

Majority-group; the social group considered to have the most power in a particular place (and sometimes the most members).

Academic performance; the extent to which a student has attained his/her short term or long term academic goals across various academic subjects (in English language and mathematics).

Organisation of the Study

The study is organized into five chapters. Chapter one presents background to the study, the problem statement, purpose of the study, research questions, research hypotheses, significance of the study, delimitation of the study, and the organization of the study. Chapter two presents the review of related literature that is relevant to the study, whiles chapter three focuses on a detailed discussion of the methodology used to carry out the research. The results and discussion of the results are presented in chapter four, and finally chapter five summarises the key finding and conclusions, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter reviewed theoretical underpinnings and discussed empirical studies relating to gender and ethnic stereotypes; stereotype and its influence on academic performance, self-concept and its influence on academic performance, and the moderating role of self-concept on gender and ethnic stereotype and academic performance.

Theoretical Review

Carl Rogers' Self-Theory

Rogers' self-theory is arguably his most significant contribution to personality science. Rogers dedicated himself to understanding how personality change could unfold (Ismail & Tekke, 2015). The process of change was his greatest concern (McLeod, 2007).

Carl Rogers (1902-1987) believed in the humanistic perspective of development and his main focus was the process of psychotherapy (McLeod, 2014). Guided by the Humanistic perspective, Rogers believed that individuals are intrinsically good and creative (McLeod, 2014). Although Rogers agreed with the main assumptions of Abraham Maslow's theory, he however proposed that for a person to grow, he or she needs an environment that provides him or her with genuineness (openness and self-disclosure), acceptance (being seen with unconditional positive regard), and empathy (being listened to and understood) (McLeod, 2014).

Rogers proposed two structural components in his theory; the organism and the self (Rogers, 1980). The organism is the totality of a person; that is all of one's physical and psychological attributes. The self or self-concept is a key concept in Roger's theory which according to him, refers to an organized pattern of perceptions and evaluations of one's own characteristics and begins from early childhood. It is the dynamic knowledge and belief about the self - it changes from time to time.

Rogers concentrated on how the evaluations of others impede or facilitate self-actualisation. Although the tendency to actualise follows genetic determinants, Rogers noted that, it is subject to strong environmental influences. Rogers (1959) opined that, the "actualising tendency" is a single dominant motivational predisposition for the developing organism. By *actualising tendency*, Rogers refers to the innate tendency of the organism to develop all of its biological and psychological capacities in ways that serve to preserve or improve itself. The major aim of the *actualising tendency* is to maximize autonomy for the organism and reduce or lessen control from external forces. The *actualising tendency* Rogers revealed, is present at birth and observable in infancy. As children progress in development and begin to experience more of a sense of independence and control over their environment, they begin to develop what Rogers (1951) termed "*a dawning awareness of I experience"*. During this period, a particularly significant dimension of the child becomes visible, which Rogers referred to as the self. Rogers believed that when people reach self-actualization, they could achieve their goals, wishes, and desires in life (McLeod, 2014).

Rogers' personality theory basically focused on the idea of self or self-concept. Rogers used the terms self and self-concept interchangeably (Murray, 2001). Rogers stated that, a person's perception of himself/herself is shaped by how others perceive them (Rogers, 2004). The self in Rogers' own words, is "an organized, fluid, but consistent conceptual pattern of perceptions of characteristics and relationships of the 'I' or the 'me, 'together with values attached to these concepts" (Rogers, 1951, p. 498). Thus, self-concept is fundamentally based on life experiences, social evaluation and the attitude of the individual's significant others. If the individual experiences conditional positive regard from his/ her parents, the individual develops the parent's values and conditions of worth (Rogers, 2004). Moreover, if self-concept is based on the values of the significant others, it can give rise to incongruence between self and experience (Rogers, 2004). Under healthy conditions, children positively value experiences that they perceive as improving themselves and negatively value experiences that appear to threaten their development (Rogers, 1951). Healthy developmental conditions are those in which children experience unconditional parental care and affection. The result of unconditional parental care is that, children will most likely view themselves as good and worthy of love (Rogers, 1951).

Rogers (1986) mentioned that, self-concept and conditions of worth are linked together and function as guidelines as to how people behave towards others because people value the opinion of others above their own. This affects their decision making and can result in them doing things to please others rather than satisfying their own needs. Conditions of worth reduce people's self-confidence, trust in their own feelings and can affect their

potential towards self-actualization (Rogers, 1986). For Rogers, the self develops in an interpersonal perspective and desires good interpersonal relations during the growth process (DeRobertis, 2006).

As children develop, they get oriented towards future development, in the direction of who he or she would ultimately like to become. This innate future tendency, Rogers termed as the "*ideal self"*. The ideal self is what the person wishes to become in future. By ideal self, Rogers (1959) denotes the self-concept which the individual would want to possess, upon which he or she places the highest value for himself or herself. They become destructive only when a poor self-concept or external constraints overri de the valuing process. *Ideal self* represents the strivings to achieve goals or ideals. In other words, it is the dynamic ambitions and goals (Ismail & Tekke, 2015). Rogers believed that for a person to achieve self-actualization they must be in a state of congruence.

The real-self (self-image), includes the influence of one's body image intrinsically. How an individual perceives himself or herself, is very crucial for good psychological health. In other words, an individual might perceive himself or herself as a beautiful or ugly, a good or bad person (Ismail & Tekke, 2015). Self-image has direct effect on how an individual feels, thinks and acts in the world. Rogers (1954) described the real self, as being initiated by the actualizing tendency, follows organismic valuing, needs and receives positive regard and self-regard. Rogers believed that every individual possess a real self. The real self is related to the inner personality. The self feels most true to what and who an individual really is. It may not be perfect, but it is the part of every person that feels most real (Grice, 2007).

Rogers revealed that, the young child has two basic needs; the need for positive regard by others and the need for positive self-regard. Positive regard refers to being loved and accepted for who one is. Young children behave in such a way as to show their strong need for the acceptance and love of those who care for them. They will undergo significant changes in their behaviour in order to attain positive regard (Engler, 2003). In an ideal situation, positive regard is unconditional. It is given freely to children for who they are, regardless of what they do. Unconditional positive regard is not contingent on any specific behaviour. A parent can limit or curb certain undesirable behaviour by objecting only to the behaviour and not disapproving of the child or the child's feelings (Engler, 2003). For instance, a parent who sees her child eat candy and put the rapper on the floor may say, "Putting the rapper on the floor will make the house dirty. Put it in the bin instead." Here, the parent limits remarks to the behaviour itself. But the parent who says, "You are a bad boy or girl for putting the rapper on the floor," has shifted from disapproval of the behaviour to disapproval of the child. Such regard is no longer unconditional (Engler, 2003).

Under conditional circumstances, children are led to understand that their parents will not love them unless they think, feel, and act, as their parents want them to (Rogers, 2004). Parents frequently make their positive regard contingent on conditions, such as the conditions expressed in the statements, "Show me you are a good child and get all A's on your report card" and "I will really like it if you earn the star role in your school play". In another example, parents push children into sports, and the children might stay in the sports, not because they like sports, but to earn the love and positive regard of the parents.

Of course, it is good for parents to have expectation for their children, but not to make their love contingent on the child's meeting those expectations (Rogers, 2004). The demands set forth by parents or significant others for earning their positive regard are called *conditions of worth* (Engler, 2003). In such situations, the child perceives the parent as imposing conditions of worth, specifying the provisions under which the child will be accepted. Children may become preoccupied with living up to these conditions of worth, rather than discovering what makes them happy. They get to behave in specific ways to earn the love, respect, and positive regard from parents and other significant people in their lives. Children who experience many conditions of worth may lose touch with their own desires and wants. They begin living their lives in an effort to please others. They become what others want them to become, and their self-understanding contains only qualities that others condone (Berecz, 2009). They move away from the ideals of a fully functioning person.

As children who are brought up under conditions of worth reach adulthood, they remain preoccupied with what others think of them. They primarily work for approval from others, but not out of their own sense of self-direction (Berecz, 2009). They depend on others for positive regard and constantly look for the conditions of worth, which must be satisfied (Engler, 2003). They hide their weaknesses, distort their shortcomings, and perhaps even deny their faults. They act in ways that make everybody, except themselves, happy. They work to please others for so long that, they forget what they want out of life. They lose self-direction and no longer move towards self-actualisation (Berecz, 2009).

Positive self-regard naturally emerges if a child has received unconditional positive regard from parents or significant others. Children who are accepted for who they are come to view themselves favourably and with acceptance. It is very difficult, however, to view oneself positively if one is continually the target of criticism and belittlement. Inadequate self-concepts such as feelings of inferiority may frequently arise because the child has not received adequate unconditional positive regard from others (Berecz, 2009; Engler 2003).

During the process of development, any experience that is at variance with the emerging self-concept is denied entrance into the self because it is threatening and evokes anxiety. If children are taught that it is wrong to feel angry, they may begin to perceive the emotion of anger itself rather than certain expressions of anger as dangerous or incorrect (Larsen & Buss, 2008).

Rogers further proposed that, a fully functioning person (living the good life) is an individual who has attained self-actualisation (Rogers, 2004). A self- actualising person is in touch with the inner experience that is inherently grown. Rogers termed this process, the *organismic valuing process*. It is a subconscious guide that evaluates experience for its growth potentials. It draws the person towards experiences that is growth producing and away from those that would hinder growth. A person who pays attention to the organismic valuing process is self-actualising or fully functioning.

Rogers referred to a fully functioning person as most healthy and has some unique characteristics, such as; openness to experience, existential living, organismic trusting, experiential freedom, and creativity (Cloninger, 1993).

Openness to experience:

The fully functioning person is open to experience, receptive to the subjective and objective happenings of life. Others may censor experience through defences (for example, not recognising an insult, or the anger that it provokes). In contrast, the fully functioning person accurately perceives such events. In this sense, one might describe such a person as having an expanded consciousness. This openness includes the ability to tolerate ambiguity in experience. A situation that appears one way at one moment may seem different another time.

Existential living:

A person open to experience shows an increasing tendency to live fully in each moment (Rogers, 1961). Experience changes, and each moment allows the self to emerge, possibly changed by the new experience. Part of the person is participating in each moment, but part is an observer of the process. The self is experienced as a fluid process, rather than a fixed entity. Experience is neither rigid nor structured.

Organismic trusting:

Such a person trusts inner experience at each moment to guide behaviour. This experience is considered accurate. The individual perceives inner needs and emotions and various aspects of the social situations without distortion. The individual integrates all these facets of experience and comes to an inner sense of what is right for him or herself. This sense is trustworthy; it is not necessary to depend on outside authorities to say what is right.

Experiential freedom:

Such a person experiences freedom, in each moment, to choose. Such freedom is subjective, and does not deny that there is determination in the world. In most circumstances, there is considerable behavioural freedom as well.

Creativity:

The fully functioning person lives creatively. He or she finds new ways of living each moment, instead of being locked into past, rigid patterns are no longer adaptive. Rogers described fully functioning individuals as well able to adapt to new conditions.

Additionally Rogers stated that, in a situation where the real self is congruent with the ideal self, it leads to a fully functioning person. Under unconditional positive regard, the self-concept carries no conditions of worth, there is congruence between the true self and experience, and the person is psychologically healthy (Ismail & Tekke, 2015). On the other hand, where there is incongruence (discrepancy) between the real self (whom an individual really is) and the ideal self (whom the person wants to be), it brings anxiety especially to the less functioning person. Incongruence leads to incongruent behaviour (Rogers, 1961). People who do not move towards achieving self-actualization experience frequent episodes of anxiety. Anxiety, according to Rogers, is the result of having an experience that does not fit with one's self-conception.

Rogers however posits that, there is the need for the perceived self and the real self, to be congruent. A state of congruent exists when a person's symbolized experiences reflects all actual experiences of the organism (Engler, 2003). When one's symbolized experiences do not represent all of the

actual experiences, or if they deny or distort them, there is a lack of correspondence between the self as perceived and the real self. In such a situation, there is incongruence and possible maladjustment (Engler, 2003).

A less functional response to anxiety is to alter the experience by using a defence mechanism. Rogers emphasised the defence- mechanism of distortion and denial. Persons who engage in distortion modify their experience, rather than their self-image, in order to reduce the threat. For example, a person might say, "The teachers in these classes are unfair" or "The grades really don't reflect how well I did, "or in another way distort the experience, or possibly the person decides to take only "easy" classes, in which she is likely to earn high grades. Her decisions about which classes to take are based not on her own interests and desires (as would be the case for a self-actualizing reason) but on which classes are more likely to result in better grades ,to make her parents happy (a condition-of-worth reason). Taking classes merely to obtain easy grades is at variance with her self-concept of someone who is smart, and she may become anxious over the fact that so many of her experiences do not fit exactly with the way she would like to see herself. Denial involves keeping an experience out of memory; a person in denial insists that things are not the way they seem. Denial involves refusing to see the facts. A man whose wife has left him might still set a place at the dining table for her and insists that she is supposed to come home at any time.

Carl Rogers' self-theory brings to bear the importance of self-concept in education. His self-theory brings into perspective the relevant role self-concept can play in moderating the effect of ethnic and gender stereotypes on academic performance. When an individual's perceived self is in congruence

with the true self, he or she becomes self-reliant and may not seek to *fulfil conditions of worth* imposed by significant others in other to gain positive regard. Such a person may be less likely to be affected by gender or ethnic stereotypes. However if an individual develops *the self* by predominantly conforming to *conditions of worth* to earn positive regard from significant others, (such as parents or teachers and peers in the school environment for example), rather than doing the things that actually makes the individual happy, that person may become vulnerable to stereotypes; since stereotypes are mainly other people's perception about an individual or a group of people. This over reliance on the opinion of significant others may result in negative consequences on academic performance.

John Turners' theory of Self-Categorisation

John Turner's work has had an insightful influence on modern social psychology. He contributed to the development of two key theories dealing with individuals acting as group members: social identity theory with Henri Tajfel and self-categorisation theory (Bourhis, 2012). John's work on self-categorisation theory provided a compelling account of how and when concerns for the individual's "self" could be transformed to a focus on the "we" and how such a shift from the individual to the collective, affected key cognitive, affective, and behavioural functioning of the individual (Turner, Hogg, Oakes, Reicher & Wetherell, 1987). In totality, John's theoretical contributions had a profound impact on the understanding of the self-concept, social categorisation, stereotyping, discrimination, social power, social influence, empathy, helping, trust, leadership, and organisational behaviour (Oakes, Haslam & Turner, 1994; Turner, 2005). Similarly, his theoretical

contributions reshaped ways of understanding the self, the group, and social change (Bourhis, 2012). John developed the awareness of how collective action could foster a sense of in-group identification, group pride, and solidarity during his early days as a trade union organiser in a Fleet Street printing factory (Bourhis, 2012).

Social identity theory is primarily a theory of intergroup relations, but self-categorisation theory explores much broader questions concerning the interface between self and society (Haslam, Reicher & Reynolds, 2012). Self-categorisation theory was developed as a theory of group behaviour. Its key idea and central assumption was that; as shared social identity becomes salient, individual self-perception tends to become de-personalised. That is, people tend to define and see themselves less as differing individual persons and more as the interchangeable representatives of some shared social category membership (Turner, Penelope, Oakes, Haslam & McGarty, 1992). By self-categorisation, Turner's core insight was that through individuals' self-definitions as group members that social influence occurs and that social belief systems come to shape what people think, what people care about, and what people do (Haslam, Reicher & Reynolds, 2012). Turner argued that, to understand the individual in a group, one needs to understand the group in the individual (Bourhis, 2012). Personal identity refers to self-categories which define the individual as a unique person in terms of their individual differences from other (in-group) persons (Turner, Penelope, Oakes, Haslam & McGarty, 1992). Social identity on the other hand refers to social categorizations of self and others. Thus, self-categories which define the individual in terms of his or her shared similarities with members of certain social categories in contrast to

other social categories (Turner, Penelope, Oakes, Haslam, & McGarty, 1992). The focus of self-categorisation is, understanding how the psychological field within the individual is socially structured (Haslam, Reicher & Reynolds, 2012). Social identities are the central pivot between the individual and the society (Turner, 1999). Turner (1982) assumed that, an individual's self-concept could be defined either in terms of personal identity or in terms of social identity and that the functioning of the self-concept is the cognitive mechanism that determines whether people engage in either interpersonal or intergroup behaviour.

Turner further identified a psychological process that underpinned behaviour in terms of a particular social identity. Turner (1982) named this psychological process depersonalisation, which refers to the process of self-stereotyping through which people come to see themselves as categorically interchangeable with others who are defined as in-group members in a particular context. In this manner Turner assumed that just as stereotyping of out-groups leads their members to be seen as homogeneous and interchangeable, so the salience of social identity leads to the in-group being seen as equally homogeneous. Similarity is not just an input into social perception, but also an outcome of the self-categorisation process (Haslam, Oakes, Turner, & McGarty, 1996).

Self-categorisation theory provides five core assumptions (Haslam, Reicher & Reynolds, 2012). First, the self is represented cognitively in terms of self-categories. In this regard the establishment and operation of self is similar to that of other categories which are used not to simplify perception but rather to represent patterns of shared meaning and function that vary with

context. Second, self-categories exist at different levels of abstraction, with higher levels being more abstract and also more inclusive. The three important levels of abstraction includes; (a) personal self-categories which define individuals' personal identity in contrast to other in-group members, (b) social self-categories that define individuals' social identity in contrast to other out-groups, and (c) human self-categories that define people as a whole in contrast to other species. Each level is as valid as the next, with the self being defined equally both as an individual and as a social group member. The third assumption is that, the development of self-categories is partially a function of the meta-contrast between inter-class differences and intra-class differences. Further, meta-contrast also determines the internal structure of self-categories and the capacity to represent and embody the category. Finally, the salience of a particular self-category leads to the importance of perceived intra-class similarities and inter-class differences. Through self-categorisation theory, two significant social psychological processes: social influence and stereotyping were analysed.

Under social influence, Turner believed that, groups are not just ideas in people's heads; but they are also dynamic real-world entities. Turner argued that individuals rely on others in groups because they assume group members are able to provide them with relevant information about the world. People go along with members not to only gain their approval, but also genuinely believe what they have to tell them an idea which is simple. Turner (1987), mentioned that social identity regulates the individual's cognitive activity by providing a shared perspective on social reality and also by providing a basis for mutual social influence. When a group is important to an individual, he or she sees the

world and expects to see the world from the perspective of his or her members. The views of the members become their views the group's judgements become the individual's judgements, likewise joys. This means that when individuals perceive themselves to share category membership with others in a given context, they expect to agree with them on issues relevant to their shared identity. Thus, people rely on common category members to resolve their doubts about what to think and what to do in the world (McGarty, Turner, Oakes & Haslam, 1993).

With stereotyping, Turner indicated that, group stereotype is the way in which the in-group differs from the out-group. For instance in everyday language, "what we are, is what makes us different from them". The implication is that, the stereotypes people hold of their own groups and of others will alter as they are compared to different out-groups or, when comparative context changes (Haslam, Turner, Oakes, McGarty & Hayes, 1992). While other psychologists see stereotypes to be rigid and static, Turner argued that stereotypes are flexible and sensitive to changes in the world.

Turner's self-categorisation theory was concerned with analysing the group in the individual rather than by focusing on the individual in the group. Turner's exceptional contribution was to analyse how the internalisation of the social world occurs through the dynamics of the self (Haslam, Reicher & Reynolds, 2012). Turner (1987), argued that, through our positioning relative to others and our understanding of that social position that we are constituted as social beings. Identity and social identity in particular, becomes the pivot around which the society and the individual are organised. Turner (1991), believed that, perceiving self-concept as stable and unchanging, does not only

lead to psychology of the group being ignored, but also results in a broader denial that human psychology is responsive to the changing nature of our social world (McGarty, Turner, Oakes, & Haslam, 1993). Hence any sufficient analysis of the nature and functioning of self-concept has to be rooted in the reality of human experience and has to accord with the ever-changing realities of the human experience (Haslam, Reicher, & Reynolds, 2012).

The Self-Fulfilling Prophecy (SFP)

Merton (1948) explained self-fulfilling prophecy as- "a false definition of situation evoking a new behaviour which makes the originally false conception come true" (p.195). Merton (1948) believed that people's false expectations could come true or individuals could generate their own reality by causing other people to change their behaviours to match or confirm the initial false expectations (Pugh, 1989). Merton (1948) proposed that self-fulfilling prophecy could result in creating large-scale social problems such as social inequalities, stereotypes and prejudice. For example, a teacher, biased by racial or ethnic stereotype, may develop the false belief that a minority student is less capable than the student is, in reality. The teacher may then act on his or her false belief by treating the student as if he or she is incapable. In comparison with other students in the class, the teacher may behave less warmly toward that student, call on that student less often, spend less time with that student, and teach that student less difficult materials.

Merton's theory on self-fulfilling prophecy was influenced by the Thomas (1928) theorem, which proposed that, "If men define situations as real, they are real in their consequences". The theorem emphasised that men respond not only to the objective features of a situation, but also, to the

meaning this situation has for them. In effect, once they have assigned some meaning to the situation, their consequent behaviour and some of the consequences of that behaviour are determined by the ascribed meaning (Merton, 1968).

Thomas (1928) mentioned that, people's reaction does not only emanate from the situations or circumstances they face but, often mainly, from the way they perceive those circumstances and the meaning they attach to those perceptions (Merton, 1968). In effect, the behaviour of individuals, to a large extent, is determined by their perception and the meaning they attach to the circumstances they face, rather than by the circumstances themselves. This strongly indicates that an individual's mentality is the result of the opinions and inferences that person derives out of a circumstance which further impacts on the person's way of doing things (Merton, 1968). Thomas (1928) defined self-fulfilling prophecy as individuals perceiving situations to be real, in which eventually the situations became real in their consequences because of the belief that individuals themselves had placed in the chances of that situation happening.

Merton's work on self-fulfilling prophecy attracted several definitions and research from many scholars on the subject matter. Watzlawick (1984), defined self-fulfilling prophecy as an assumption or prediction that causes the expected or predicted event to occur and thus confirms its own accuracy. Willard, Madon, Guyll, Spoth, and Jussim (2008) also mentioned that, self-fulfilling prophecies occur when individuals' false beliefs about others become true through social interaction. Keuschnigg and Wolbring (2016), explained that, a self-fulfilling prophecy occurs when erroneous perceptions of

a fact produce unintended consequences that modify its framework or outcomes to conform to the original misconceptions of the individuals involved.

Sharma and Sharma (2015), proposed three fundamental characteristics of self-fulfilling prophecy. That is, in self-fulfilling prophecy, first, a person must hold a false belief about another person. Second, the person holding the false belief must treat the other person in a manner that is consistent with it. Lastly the person about whom the false belief is held must, in response to the treatment he or she receives, confirm the original false belief. Through this sequence of events, individuals have the potential to socially construct reality (Sharma & Sharma, 2015).

Biggs (2009), mentioned that self-fulfilling prophecy is a peculiar type of dynamic process and further argued that, it is not true that people's perceptions depend on their prior beliefs, nor is it also true that beliefs, even false ones have real consequences (Biggs, 2009). Merton (1936) revealed that the mirror image of SFP is the 'suicidal prophecy', in which the initial belief leads to behaviour that makes the belief untrue. However, this kind of dynamic process has attracted little attention, although it may have considerable importance. It is excluded due to limitations of space. To qualify as a self-fulfilling prophecy, a belief must have consequences of a peculiar kind: (1) consequences that make reality conform to the initial belief (Biggs, 2009). (2) The actors within the process or at least some of them –fail to understand how their own belief has helped to construct that reality; because their belief is eventually validated, they assume that it was the truth from the onset. This misapprehension is implicit in Merton's account (Biggs, 2009).

Biggs (2009) proposed that, self-fulfilling prophecy comprises a causal sequence whereby an actor's belief motivates behaviour that turns it into reality, while at the same time the actor(s) misapprehend the causal sequence as one of which belief simply reflects reality. This misapprehension is not unreasonable; because 'inductively derived prophecy' is common.

Pugh (1989) established a strong link between self-fulfilling prophecy and its associated phenomena such as stereotype, prejudice and discrimination. Pugh (1989) explained that, stereotypes are generalisations which are demonstrated to be generated as part of social identity and to be perpetuated and confirmed as a result of self-fulfilling prophecy. Abrams and Hogg (1988) explained the stereotyping process as one of social identity. They explain that society consists of many social functional categories which differ in power and status and which tend to conflict. In order to enhance self-esteem, being composed of personal and social identity, individuals immediately identify themselves with the group to which they belong for self-identity. Their self-identity is then modified by symbolic interactionism. That is, in effect the individual is affected (self-fulfilling prophecy) by his or her perception of how other members in the relevant reference group perceive him or her. Gender stereotypes are particularly considered as products of self-fulfilling prophecy with expectations that men are dominant, independent, competitive, ambitious and aggressive (Pugh, 1989). Women are also normally perceived as submissive, dependent, conforming, affectionate and sympathetic.

Prejudice or intolerant attitudes towards others are mostly ethnocentric whereby individuals value their own groups more than others. Pugh (1989), indicated that, self-fulfilling prophecy is shown to be the means used to justify

the apparent validity of prejudiced views. At the group level, stereotypical beliefs about the characteristics of another group are usually learned by other members of the group through their conformance to norms. These beliefs are transformed into inappropriate behaviours which lead to confirmation of the prejudice (Pugh, 1989).

Discrimination, or unfair behaviour towards other people, is also shown to be explained by social identity theory and is justified by the self-fulfilling prophecy process (Pugh, 1989). Rokeach (1968) mentioned that discrimination is a product of perceived dissimilarity in values between groups. An individual or group is presumed to reject another because of the belief that the other group possesses different values.

The factual characteristics of Self-fulfilling Prophecy, is the notion that social actors are caught in a web of their own making; they create social reality, failing to realize that they are responsible for creating it (Biggs, 2009). For instance in the case of examination neurosis, a student is convinced that he is destined to fail, the anxious student devotes more time to worry than to study and this results in a poor achievement (Merton, 1968). The initial false anxiety is transformed into an entirely justified fear. The self-fulfilling prophecy is, in the beginning, a false definition of the situation evoking a new behaviour which makes the originally false conception come true (Merton, 1968). The empirical evidence of the self-fulfilling prophecy perpetuates a reign of error.

Key Factors Influencing the Occurrence of Self-Fulfilling Prophecy

The occurrence and impact of self-fulfilling prophecy may depend on various factors, some of which are:

Status Difference between the Observer and the Target: People are more likely to create self-fulfilling prophecies when their status is high (e.g., teacher, parent, and therapist) versus low (student, child, and client) and when they are confident versus doubtful that their false beliefs are accurate.

People's Motivations: In some cases, people may be particularly motivated to have others (observers) see them as they see themselves. People with such motives are less susceptible to confirming other people's false beliefs about them.

Processes of Accumulation: Self-fulfilling prophecy effects also have the potential to become powerful through the process of accumulation. Self-fulfilling prophecies may accumulate in two folds: over time and across people. Accumulation over time occurs when people are repeatedly exposed to false belief over time. Thus a person's self-fulfilling influence becomes stronger over time. Self-fulfilling prophecy effects may also accumulate across people. In a given day, a person may interact with many different people, each of whom may hold a false belief about him or her. If these beliefs are similar (e.g., all favorable or all unfavorable), then their individual self-fulfilling effects can combine to have a large effect on the person's behaviour. The effects elicited by those who hold unfavorable beliefs may become stronger as the number of people holding similar beliefs increases.

Correlation between expectations and performance: High expectations often lead to higher performance; while low expectations lead to lower performance. Better performance resulting from high expectations leads us to like someone more and vice-versa. We tend to be comfortable with people who meet our expectations, whether they're high or low and vice-versa.

Forming expectations is natural and unavoidable and once formed expectations about an individual's self tend to be self-sustaining.

Superior versus Subordinate Relation: Good managers often produce employees who perform well and feel good about themselves. Bad managers on the other hand, often produce employees who perform poorly and feel badly about themselves. The best managers have confidence in themselves and in their ability to appoint, develop and motivate people; largely because of their own personal self-confidence, they are able to communicate high expectations to others. By the frequent or infrequent use of praise, criticism, feedback etc. a manager increases or decreases resourcefulness.

The concept of self-fulfilling prophecy seems to be persistent in our society, economy or amongst individuals. Its impact might be subtle or profound but its existence cannot be denied.

It is also noteworthy that the self-fulfilling prophecy may result in both positive as well as negative outcomes. Although the observer and the target may or may not be aware about the phenomenon taking place, it is essential for the observer to understand his/her expectations from the target. The concept of Self-fulfilling Prophecy can be used intelligently to improve performance and efficiency in various fields of life like from parenting, teaching, supervision, to leadership, economy, management and several other aspects of life.

Lippmann's Theory on Stereotype

The study of stereotyping as a social phenomenon was initiated by the American journalist Walter Lippmann, who first coined the term stereotype in its contemporary sense and introduced it into the field of the social sciences.

Lippmann (1997) viewed stereotype as a shared mental picture, (of a group, event, thing, social system, or natural process) that simplified the thing represented so that it might be easily grasped. The assumed impossibility of individuals gaining knowledge of everything in the world through direct experience, provided stereotypes a way of making sense of complicated and often distant things by translating them into digestible images. As he explained that, the only feeling a person can have about an event he or she does not experience is the feeling aroused by his or her mental image of the event. Lippmann (1997) further stated that, what every individual thinks and does is not based on direct and certain knowledge, but on pictures made by him or herself or given to the individual. Lippmann assumed that, stereotypes are mental templates and a by-product of the individual's need to simplify a complex reality (Ladegaard, 2011). Stereotyping refers to a value-neutral psychological mechanism that creates categories and enables individuals to manage the circle of data presented to them from their environment (Ramirez-Berg, 2002).

Lippmann (1997) viewed stereotyping as a neutral cognitive category created by or given to individuals by their environment. However, the use of stereotyping in modern day is attached with negativity or wrong generalization an individual possess about some particular group or ethnicity (Ramirez-Berg, 2002). Commonly, people perceive stereotyping as the act of making judgments and allocating negative qualities to other individuals or groups.

The development of negative stereotyping over the years is linked to two critical elements; thus, ethnocentrism and prejudice. Ethnocentrism is usually referred to as a kind of ethnic or cultural group egocentrism, which

includes the belief in superiority of one's own group, including its values and practices, and often generate contempt, hatred, and hostility towards those outside the group (Bizumic, 2015). Prejudice also transforms neutral categorization into a discriminatory practice. Allport (1954), defined prejudice as an antipathy (hatred or dislike) based on faulty and inflexible generalization. Prejudice predisposes people to behave negatively toward certain group of people because of a group to which they belong. In simple words, stereotyping is usually applied as a negative and offensive way of perceiving certain group of people, thus; categorising a group of individuals based on ethnocentrism and prejudice leads to stereotyping (Ramirez-Berg, 2002).

On the contrary, Lippmann proposed stereotypes as an ordering process, a short cut, as referring to the world, and expressing our values and beliefs (Dyer, 1999). By ordering process, stereotype has to be acknowledged as a necessary, inevitable, part of the way societies make sense of themselves, and actually make and reproduce themselves. Stereotypes are perceived as absolute and rigid, which is grounded in social power (Dyer, 1999). Lippmann's idea of stereotypes as a short cut points to the fact that, stereotypes are very simple, striking, easily-grasped form of representation but in different vein, capable of reducing a great deal of complex information and a host of implications (Perkins, 1979). Lippmann described stereotypes as referring to the world. That is, Lippmann referred to stereotypes as a projection onto the world. Finally, Lippmann viewed stereotype as expressing our values and beliefs. Stereotypes as expressing values and beliefs refer to the situation where individuals think members of different social groups are like (Dyer,

1999). These individual perceptions about social groups were seemed to be spontaneously arrived at by all members of society independently and in isolation. Stereotype is taken to express a general agreement about a social group, as if that agreement arose before, and independently of, the stereotype (Dyer, 1999). However on most occasions it is from stereotypes that individuals get their ideas about social groups (Dyer, 1999).

Lippmann, (1997) opined that, everyone frequently believes the pictures in his or her mind, and those pictures are constantly tainted by the biases harboured. Lippmann believed that, with the *mind's eye*, people see the world in a unique way. In general, people form mental images (could be generated personally or inherited from group) about events they in no way experienced just to make meaning out of the vast world (Lippmann, 1997).

Developmental Intergroup Theory (DIT)

Developmental Intergroup Theory was developed by Bigler and Liben (2007) to explain how stereotyping and prejudice emerge during childhood. Bigler and Liben (2007) argued that, contemporary theories captured in the work of Aboud (2005); Martin, Ruble and Szkrybalo (2002) which explained how cognitive processes predispose children to acquire and maintain social stereotypes and prejudice failed to account for two main issues. These contemporary theories failed to establish why some dimensions of human variation such as gender rather than others like handedness become foundations for social stereotyping and prejudice, and their inability to establish whether biases are unavoidable and, if not, how they might be prevented (Bigler & Liben, 2007). Efforts to address these issues, led to the establishment of Developmental Intergroup Theory (DIT) (Bigler & Liben,

2007). Children are often perceived as uncorrupted by the negative social biases, but several studies have revealed that stereotyping and prejudice manifest by the age of 4 (Bigler & Liben, 2007).

Stereotype is a "cognitive structure that contains the perceiver's knowledge, beliefs, and expectancies usually about some human group" (Hamilton & Trolier, 1986, p. 133). Stereotypes may be targeted at any social group and, the basis and content of social stereotypes have varied greatly over the years and geographical region (Bigler & Liben, 2007). For instance, stereotypes of Northerners, Ashantis, Gas, and Ewes have been common throughout Ghana, but the content of these stereotypes has changed in significant ways over time. Social stereotyping is usually, although not always, accompanied by prejudice. Prejudice refers to an unfavourable attitude toward individuals because of their membership in a particular group which are mostly irrational or unreasonable (Bigler & Liben, 2007).

Stereotyping and prejudice are often interwoven and are mostly used interchangeably. Groups associated with highly negative attributes (example; aggression and violence) are likely to be regarded with prejudice. The distinction is expedient, because people sometimes show prejudice toward a social group while simultaneously approving positive, or few, stereotypes concerning the group. For example, in Ghana, people show biases against Northerners, despite believing them to be hardworking and strong. On the other hand, people sometimes show no prejudice toward social groups, despite approving stereotypes of the groups (Bigler & Liben, 2007).

Stereotyping and prejudice can involve one or both of two underlying processes (Bigler & Liben, 2007). The first is an *automatic (involuntary) process*, which is referred to as *implicit attitudes*, which consist of unconscious stereotyping and prejudice toward groups. The second is a *controlled (voluntary) process*, which is referred to as *explicit attitudes*, which involves conscious stereotyping and prejudice toward groups (Greenwald & Banaji, 1995). In comparison, just as individuals' stereotypes and prejudice are always not congruent, implicit and explicit forms of each construct (stereotype, prejudice) are also not always congruent. For instance, an individual may hold negative (or biased) implicit attitudes (stereotypes or prejudices) toward some group, perhaps based on knowledge of the cultural stereotypes of that group, while simultaneously approving positive (or non-biased) explicit attitudes (stereotypes or prejudices) about that same target group (Greenwaid & Banaji, 1995). Devine (1989) asserted that, implicit attitudes are generally well developed beliefs acquired during childhood, whereas explicit attitudes represent more recent, consciously constructed views of social groups.

Developmental Intergroup Theory is grounded in two complementary theoretical approaches. The first is the intergroup theory, which includes social identity by Tajfel and Turner (1986) and self-categorization theories by Turner, Hogg, Oakes, Reicher, and Wetherell (1987), and the second is cognitive-developmental theory, which comprised of Piagetian and contemporary approaches to cognitive development.

Attitudes and behaviours toward many social groups, form early in development (Bigler & Liben, 2007). Bigler and Liben (2007) proposed that, as children approach the age of five, they exhibit evidence of stereotyping and prejudice based on gender, race, age, facial attractiveness, physical ability status, and body weight. The early emergence of stereotyping and prejudice has several significant consequences (Bigler & Liben, 2007).

In the first instance, although stereotyping and prejudice have potentially serious consequences at all ages, the effects of bias might be serious during childhood, when core human characteristics, values, and aspirations such as self-esteem, social identity, and academic and vocational goals are being developed (Bigler & Liben, 2007). Children's cognition and behaviour are affected by social stereotypes and prejudice in a wide variety of domains, including their ability to remember information (Averhart & Bigler, 1997; Bigler & Liben, 2007); occupational goals and judgments (Bigler, Averhart, & Liben, 2003; Liben, Bigler & Krogh, 2002); academic self-esteem and efficacy (Osborne, 1997); peer preferences (Martin & Fabes, 2001); and object preferences (Serbin, Powlishta, Gulko, Martin & Lockheed, 1993).

In the second instance, preventing the formation of biases may be much easier than working to undo social stereotyping and prejudice after they have been developed (Bigler & Liben, 2007). Attitudes and behaviours of individuals toward social groups are often highly resistant to change. Interventions and strategies designed to change children's gender and racial attitudes proved ineffective (Banks, 1995). Changing adults' social stereotypes

and prejudices has likewise proven to be significantly more difficult than expected (Hewstone & Brown, 1986).

Bigler and Liben, (2007) mentioned that, the developmental history of individuals thinking about social groups during childhood affects the functioning of such attitudes during adulthood. Particularly as argued by Devine (1989) earlier, adults' implicit attitudes toward social groups (for example ethnicity and gender) may represent beliefs developed during childhood, and that these beliefs are deeper, more rooted, and less available to consciousness than acquired beliefs in adulthood. For instance, although individuals' beliefs about race may evolve during adulthood, perhaps as a result of formal education or encounters with peers from diverse racial backgrounds, beliefs and effects acquired during childhood are now believed to persist (Bigler & Liben, 2007). The latter may continue to influence individuals' ethnic-related judgments and behaviours, often without the individuals' own awareness. Understanding the processes involved in the development of social stereotypes and prejudice in childhood is, therefore, critical to understanding behaviour across life's course (Bigler & Liben, 2007).

Core Components of Developmental Intergroup Theory

Bigler and Liben (2007) stated that, the main assumption of developmental intergroup theory is that, social stereotyping and prejudice arise during childhood as the result of constructivist cognitive-developmental processes which operate in environments that differentially foster the use of certain attributes as the basis of categorizing people into groups.

Bigler and Liben (2007) proposed four core component processes of developmental intergroup theory. These components include;

1. Establishing the Psychological Salience [EPS] of Person Attributes.
2. Categorization of encountered individuals [CHI] along a salient dimension.
3. The development of stereotypes and prejudices [DSP] concerning salient social groups.
4. The application of a stereotype filter- [ASF] when individuals are encountered.

Establishing the Psychological Salience [EPS] of Person Attributes

Bigler and Liben (2007) stated that, basically all approaches to social stereotyping rest on the foundation of categorization. However, there are almost endless bases on which individuals might be broken down into groups. The first component of developmental intergroup theory addressed the process by which some individual attributes, become salient for categorization (Bigler & Liben, 2007).

Drawing from Piagetian theory, Bigler and Liben (2007) assume that individuals are born with a predisposition to strive to understand their world, including the principles that might explain human behaviour. In other words, children actively seek to determine which of the many possible bases for classification available for a given individual, or groups of individuals, are important or necessary. Environmental characteristics interact with characteristics of the child's cognitive system to render some, but not other, bases of categorization psychologically salient or meaningful (Bigler & Liben, 2007).

Bigler and Liben (2007) argued that, they do not believe that any specific human trait invariably and inevitably serves as a salient dimension of categorization as a result of evolved biological mechanisms promoting survival of individuals and the species as proposed by other theories. Instead, Bigler and Liben (2007) believed that survival is likely to have been promoted by the evolution of a highly flexible cognitive system, rather than providing *hardwired* biases for categorization which directs children to construct hypotheses about which bases of classification are appropriate within a given context.

The implication of this view is that, cultural characteristics and children's cognitive skills interact to shape specific dimensions children come to deem as significant. Cultural environments might be explicitly structured to make some classification schemes psychologically salient (Bigler & Liben, 2007). Other cultures may unintentionally create and highlight categories. For example, although not intended to cause gender discrimination, Ghanaian culture provides young children with many cues that distinguish people by sex (for example differentiating hair and clothing styles). These unintentional categories, to some extent are consistent across cultures in the appearance of some forms of stereotyping and prejudice (Bigler & Liben, 2007). In the same vein, environments differ with respect to which human dimensions are made salient. This presupposes that, there are likely variations across cultures within which specific forms of stereotyping and prejudice manifest (Bigler & Liben, 2007).

Bigler & Liben (2007) further argued that, classification or categorization of children is not made based on some particular dimension as proposed in traditional and social learning theories, reinforcement or punishment and observing and then imitating others express stereotyping and prejudice. Instead, children search for categories or classifications that are appropriate and useful within, their culture. The environment does play a significant role in shaping children's social stereotyping and prejudice, but its role involves providing children with information about social groups that: (a) serves to make some bases for classification salient, and (b) provides the aliment, or the raw material, from which children construct the meaning of groups (Bigler & Liben, 2007). For example, a father tells his child to "Ask that lady if they were in the correct queue" would not be considered by traditional or social learning theorists to be shaping his child's gender stereotyping. The statement involves neither reward nor punishment, nor does it convey anything about the father's gender attitudes. Nonetheless, Bigler and Liben (2007) posit that this type of statement plays a vital role in shaping children's gender attitudes because it serves to make gender salient and directs children to devise hypotheses about the meaningfulness of gender.

Categorization of Encountered Individuals [CHI] along a Salient Dimension

As noted earlier, Bigler and Liben (2007) shared the assumption of many theorists that children are driven to categorize stimuli in an attempt to structure knowledge and reduce the complexity of operating within the world (Allport, 1954; Mervis & Rosch, 1981). Thus, they posit that children will classify encountered individuals into groups using those dimensions that are

psychologically salient (Bigler & Liben, 2007). The extent and way in which the classification process operates will be affected by the child's classification skill, which undergoes age-related changes and environmental experience. The mere act of categorization or classification triggers processes involved in the construction of social stereotypes (Bigler & Liben, 2007).

The Development of Stereotypes and Prejudices [DSP] Concerning Salient Social Groups

The process of categorisation is theorised to result in constructivist cognitive developmental processes that serve to attach meaning to social groups in the form of beliefs (i.e., stereotypes) and affections (i.e., prejudice) (Bigler & Liben, 2007). Developmental intergroup theory outlines the factors that guide children's acquisition of the content of their social stereotypes and the nature of their affective responses to social groups.

Bigler and Liben, (2007) propose two broad classes of ways in which children attach meaning to groups: those that are internally driven and those that are externally driven.

Internally driven processes refer the self-generation, or construction, of associations between social categories and (a) attributes (traits, behaviours, roles), and (b) affection (e.g., liking). With respect to social stereotyping, these processes are hypothesized as one in which children go above and beyond real information available in the environment to inferentially construct information about the attributes associated with particular social categories (Bigler & Liben, 2007). A child may for instance mention that Africans and Americans have different blood types or, a six-year-old girl announced that "only boys eat oysters" at her first sight of the disgusting looking dish. Obviously, such

beliefs are not based on the accretion of empirical evidence but instead reflect the children's imposition of an internalized group schema onto the world (Bigler & Liben, 2007). With respect to prejudice, the processes are hypothesized as those in which children actively exhibit more positive affective links to in-groups than out-groups. Children naturally prefer their in-group to their out-group and come to believe that more positive traits characterize their in-group than their out-group, despite the fact that such beliefs are neither modelled by adults nor objectively true (Bigler & Liben, 2007).

Bigler and Liben, (2007) explained that, children's cognitive processes are applied to what they encounter in the world, and the environments in which children live (both macro-level and micro-level) are characterized by correlations between social categories and many attributes.

Both children and adults usually develop stereotypic views and prejudices concerning groups that are meaningless and uncorrelated with any observable traits or behaviours (Bigler & Liben, 2007). More so, children's social stereotypes frequently are not related to environmental messages. For example, Bigler and Liben mentioned that young children's racial and gender attitudes are not correlated with their parents' attitudes (Tenenbaum & Leaper, 2002) or with their peers' attitudes (Aboud & Doyle, 1996). In addition, children sometimes express rigid beliefs about gender that contradict cultural views but, at the same time, serve to associate their own gender with positive characteristics (Powlishta, 2004) or desired activities. Social stereotyping clearly involves some degree of construction on the part of children. For example, in Bigler's experiment, some children were asked about which

gender usually bakes at home, young children (5 – 7 year-olds) were more likely than older children (8-10 year olds) to say "only women" rather than the more accurate "mostly women."

Several numbers of potential categories to attribute correlations are available in a typical children's world. It seems unlikely that a child could estimate the correlational relation between all possible social groups within an environment and all possible traits, roles, and activities within that environment (Bigler & Liben, 2007).

The Application of a Stereotype Filter [ASF] when Individuals are Encountered

The final core component of Bigler and Liben's (2007) theoretical approach to the development of stereotypes and prejudice concerns children's responses to the continual flow of information relevant to groups and the characteristics of group members. Over time, children are continually exposed to new information that potentially extends, reinforces, and contradicts the content of their social stereotypes and prejudices (Bigler & Liben, 2007). In the area of gender, for example, children have new experiences that expose them to an expanding scope of occupations that might or might not be correlated with gender. Children encounter people who confirm or contradict their gender stereotypes (e.g., female nurses and female bus drivers), and they interact with men and women who activate positive and negative affective responses (Bigler & Liben, 2007). Once stereotyping is formed, children's social stereotypes and prejudices show a strong tendency to be maintained. The major cause of this tendency is *schematic processing* (Bern, 1981). Constructive processes, direct children to have a strong tendency to remember

information that conforms to their stereotypic expectations, and this information strengthen children's stereotypic beliefs and prejudices (Bigler & Liben, 2007).

On the other hand, Bigler and Liben (2007) opined that, children have the strong tendency to forget or distort information that contradicts their stereotypic beliefs. The schematic processing which takes place is that, children apply stereotype filter to such information when they encounter them. When this filter operates, it serves to alter the way that the stimulus persons are encoded or processed. The result is either to lead the child to produce stereotype-consistent representations, or to forget those encountered persons in their entirety (Bigler & Liben, 2007).

Developmental intergroup theory specifies the mechanisms and procedures that govern the processes by which children single out groups as targets of stereotyping and prejudice, and by which children learn and construct both the characteristics (i.e., stereotypes) and affective responses (i.e., prejudices) that are associated with these groups in their culture (Bigler & Liben, 2007). Specifically, Bigler and Liben argue that children have a drive to understand their world, and that this drive is manifested in their tendency to classify natural and non-natural stimuli into categories, and to search the environment for cues about which of the great number of potential bases for categorization are important. The first step in the process of stereotype and prejudice formation is, therefore, the development of the psychological salience of some particular set of dimensions (Bigler & Liben, 2007).

Empirical Review

The empirical review captured an overview of stereotypes; routes of stereotype formation; Self-concept and academic performance; Gender stereotype and academic performance. In addition, Ethnic stereotype and academic performance; Gender stereotype and Self-concept and Ethnic stereotype and self-concept were reviewed.

An Overview of Stereotypes

Stereotype content is assumed to influence the nature of prejudice and discrimination (Fiske, Cuddy, Glick, & Xu, 2002). A study to investigate the moderating role of self-concept on gender and ethnic stereotypes as applied to academic performance of students in Senior High School may be a valuable addition to the existing literature. Oaks, Haslam, & Turner (1994) defined stereotype as the collection of attributes believed to define or characterise the members of a social group. Tajfel (1981) also defines stereotypes as the attributes that define a group of people and is shared, in essential features, by large numbers of people. Stereotypes are supposed to exist to aid the cognitive processes of categorisation and accentuation. Categorisation ensures that the differences between people are simplified and attributed to members within a group whereas accentuation warrants that the differences between groups are exaggerated while the differences between individual members of the same group are minimised (Oaks et al., 1994; Tajfel, 1981).

According to Madon, Guyll, Aboufadel, Montiel, Smith, Palumbo and Jussim (2001), stereotypes as same or similar traits that are usually used to describe a social group by most individuals in one culture. How the same traits come to be ascribed to a group by many different people has been attributed to

inter-group relations; stereotype content is often described as arising out of inter-group conflict (Fiske et al., 2002) and responsible for maintaining the status quo relations amongst social groups. Additionally, stereotype content seems to be based on cultural values which are transmitted by various sources (e.g., the media and to children by their caretakers; Fiske et al., 2002; Joffe & Staerklé, 2007; Madureira, 2007).

According to Heilman (2001), stereotypes have been proven to impact and influence people's way of thinking, which in turn allows individuals to make sense of their social world. He further stated that individuals within a culture have similar stereotype content because it is based on relatively stable inter-group relations and widely-held consensual values.

Stereotypes also arise in response to environmental factors, some of which include: different social roles (Eagly, 1995), group conflicts (Robinson, Keltner, Ward & Ross, 1995) and differences in power (Fiske, 1993). Alternatively, stereotype can also emerge as a way of justifying a status quo (Jost & Banaji, 1994) or in response to a need for social identity (Abrams & Hogg, 1988).

Routes of Stereotype Formation

The best-known routes of stereotype formation include among others, the creation of group differences through self-fulfilling predictions. They emerge when people hold expectancies that lead them to alter their behaviour, which in turn causes the expected behaviours to be exhibited by people who are targets of the expectancies (e.g. teachers who expect some of their students to excel, prompt superior performance from those students) (Rosenthal & Jacobson, 1968). According to Hilton and Von Hippel (1996), another route of

stereotype formation is through the generalisation from the behaviours of one group member to the evaluation of others (which is not necessarily a conscious process).

A great deal of research has demonstrated that people can come to perceive minority groups in a more negative light than majority groups, even when the groups behave identically. One explanation of this effect is the distinctiveness perspective (Hamilton & Sherman, 1989; Mullen & Johnson 1990). According to this, people spend more time encoding distinctive (minority) information than other information. Illusory correlation is another mechanism of stereotype formation, which implies that perceivers tend to establish relationships between sets of variables that are not actually related and that provide no reason for association (e.g. correlating teenagers with rebellious behaviour) (Stroessner & Mackie, 1993).

Gender Stereotype and Academic Performance

Gender stereotypes are the attitudes or beliefs of an individual that one gender is less competent or inferior to the other. The essential issue of gender stereotypes is the personality traits that individuals attach to male and female candidates (Connell, 2014). The concepts of gender and gender stereotypes are heavily studied in sociology, educational and media studies. Sociologists make a distinction, between the concept of sex and gender. The term sex on one hand is linked to biological traits focused on chromosomes and genitalia and some physical features that distinguish the category of male and female (Connell, 2014). The concept of gender, on the other hand, is the result of the cultural meanings attached to men and women's roles, and how individuals understand their identities (Eagly, Wood, & Diekman, 2000; Oakley, 2015).

Gender has been advanced as one of the predictor variables that may be factored in students' academic achievement. Gender is one of such factors to have significant effects on students' academic performances. The importance of examining performance in relation to gender is based primarily on the socio-cultural differences between girls and boys (Adigun, Onihunwa, Irunokhai, Sada & Adesina, 2015). Literature on gender differences in academic performance in Ghana shows varying results depending on the level of education and subject(s) studied. Hedges and Nowell (1995) reported that males may be academically better than females naturally based on the fact that their cognitive abilities are much more variable than females.

Gender disparities in mathematics performance, is a problem in many educational systems. In relation to gender and mathematics, the stereotype threat theory proposes that when activated, negative stereotypes can affect females and result in lower performance levels for females as against males (Schmader, Johns, & Forbes, 2008; Shapiro & Williams, 2012).

It has been discovered that certain subjects are gender stereotyped; for instance, males are believed to be better in mathematics, sciences and engineering. These subjects are considered masculine subjects while females are believed to be better than males in language arts etc. and therefore feminine subjects (Halpern, Benbow, Geary, Gur, Hyde, & Gernsbacher, 2007). In many studies where performance was tested, boys usually showed lower competence in reading or language (English) compared with girls, yet tended to show higher competence in subjects related to mathematics. Smetackovaa (2015) conducted a study on gender stereotypes, performance and identification with mathematics. She identified a negative weak

relationship r = -0.244 between achievement in mathematics and gender stereotype. The study further revealed that, both male and female students differed in beliefs about mathematics. They perceived mathematics as an area associated with masculinity. Male students' believed it could be the source of their positive identity and motivation. Smetackovaa (2015) concluded that, several female and even male students' stereotypical beliefs about mathematics as masculine field can be a source of different individual approach to mathematic. Cvencek, Kapurb and Meltzoffa (2015), conducted a study on mathematics achievement, stereotypes, and mathematics self-concepts among elementary-school students in Singapore. They reported that, implicit mathematics-gender stereotypes were significantly related to achievement in mathematics. Cvencek, Kapurb and Meltzoffa (2015), suggested that, measuring individual differences in non-academic factors such as gender stereotypes may be a useful tool for educators in assessing students' academic outcomes. On the other hand, Kapur and Cvencek (2014) in their study on implicit social cognition as a predictor of academic performance reported a positive relationship between implicit mathematics-gender stereotype and achievement in mathematics. In another study, by Ludwig (2010), female middle (junior high) school students were much more serious of their abilities in mathematics related subjects than male students even if they had the same grades. While such differences in competence between male and female students may be relatively small, they correspond with much greater differences in motivation-related variables emerging during the school years, and thus seem to channel students into lifelong gendered pathways through gendered educational and occupational preferences.

Else-Quest, Linn, and Hyde (2010), in their study concluded that while effect sizes of gender disparities in performance may vary across nations, on the average girls tended to underperform in domains related to mathematics, whereas they outperformed boys in subjects related to reading (Driessen & van Langen, 2013; Mullis, Martin, Foy, & Arora, 2012; Mullis, Martin, Foy, and Drucker, 2012).

Ampofo and Osei-Owusu (2015) on the other hand conducted a study on whether students' sex was a mediating factor in their academic performance in mathematics and English at the Senior High School level in the Ashanti Mampong Municipal Area of Ghana. Chi-square results obtained indicated that there was no statistically significant association between a students' sex and his/her academic performance in either mathematics or English. Thus, the study showed that there were no differences between male and female students' performance in mathematics and English at that level. Apaak (2016) however, found out in a study carried out in the Tamale Metropolis of Northern Ghana, that there were significant gender differences in academic performance in mathematics among Senior High School students, with males performing better than females. Oppong (2013) established from a study that there were significant differences in academic performance between male and female Senior High School History students on essay examinations, with female students doing better than their male counterparts. Fan, Umaru and Nseendi (2016) revealed no significant relationship between gender and performance in English language in their study on students' academic achievements in English Language with gender as a matter of concern. Khwaileh and Zaza (2011) also reported a significant relationship between

students' GPA and gender stereotype. But they did not specify the programmes that summed up the students' GPA.

Gender stereotypes can create "prompt bias in evaluative judgements of women even when these women have proven themselves to be successful and demonstrated their competence" (Heilman, Wallen, Fuchs & Tamkins, 2004). The creation and the spreading of gender stereotypes can form a risk for a society. According to Judge and Robbins (2015), gender stereotype can create social limits for a particular group, men or women can be seen as able to possess only certain abilities and hence carry out only specific roles and job positions). In other words, the acceptance and diffusion of stereotypes among people can lead to bias in evaluating one's competences and abilities. Anand (2013) contends that gender stereotypes can be especially harmful by creating a patriarchal society characterized by notions of female inferiority. Diekman and Eagle (2000) stated that gender stereotypes have changed, with increased participation of women in paid labour force along with social transformation.

Ethnic Stereotypes and academic performance

Ethnic identification and ethnic stereotypes have always been in the scope of interest of social scientists. People have a rich variety of beliefs about typical members of groups including beliefs about traits, behaviours, and beliefs about values of a typical group member (Osland & Bird, 2000).

Smedley (1998) posited that stereotypes arising from cultural beliefs are dynamic and evolve with changes in the environment. Since cultural beliefs are learnt, individuals and groups can also change their cultural beliefs through social leaning processes by exposure to modifying influences. Every social community has a unique cultural identity that sets it apart from other

communities (Osland & Bird, 2000). Katz and Braly (1933), in their study of ethnic sterotype, found that students held clear, negative stereotypes of students of other ethnic groups. Some psychologists argue that ethnic stereotypes form a natural feature of human behaviour, which can be seen to benefit each group because it helps in the long-run to identify with one's own ethnic group and so find protection and promote the safety and success of the group. McKown and Weinstein (2003) examined stereotype consciousness in an ethnically diverse group of elementary school children. To assess children's ability to infer stereotypes, the authors used a Vignette-based experimental task in which children were told about an imaginary land populated by "Greens" and "Blues" where a Green character believed that Blues were not as smart as Greens. Children were asked to talk about ways in which the real world mirrored the imaginary land. Children were rated as being aware of broadly held ethnic stereotypes if they said, "White people think Black people are not smart." From these interviews, the researchers found that awareness of broadly held ethnic stereotypes increased with development; by age 10, 80% of ethnic minority children and 63% of majority children were aware of widely held ethnic stereotypes (McKown & Weinstein, 2003). Rowley (2007) also examined race stereotype endorsement among 448 fourth, sixth and eighth grade White and Black children. Findings from this study suggest that by middle school, youth are aware of commonly held stereotypes and may even endorse them as well. However, the cross-sectional design, used in the study makes it unclear if the age differences that emerged in stereotype endorsement among youth were due to developmental change or to other sample characteristics. Shih, Pittinsky and Ambady (1999) reported in their

study on stereotype susceptibility: identity salience and shifts in quantitative performance that, there was a significant relationship between ethnic stereotype and performance in quantitative tasks like mathematics. Shih, Pittinsky, and Ambady (1999) indicated that, Asian-American female students performed better on a mathematics test when their ethnic identity was activated. They argued that, implicit activation of a sociocultural stereotype can influence the performance of the stereotyped individual. Cheryan, and Bodenhausen's study (2000) on the threat positive stereotypes had on intellectual performance: the psychological hazards of "model minority" status; reported a significant relationship between ethnicity and performance in mathematics. Cheryan, and Bodenhausen (2000), revealed that, ethnicity salience in test taking among students resulted in diminished ability to concentrate, which in turn led to significantly decreased mathematics performance. Ryan and Ryan (2005), also mentioned in their study on psychological processes underlying stereotype threat and standardized math test performance that, stereotypes based on ethnicity affected performance in mathematics. Thus negative ethnic stereotypes can create a situational pressure that depresses students' performance. Thames, Hinkin, Byrd, Bilder, Duff, Mindt, Arentoft, and Streiff (2013), in their study on the effects of stereotype threat, perceived discrimination, and examiner race on neuropsychological performance; identified a significant relationship between race and neuropsychological performance in which African Americans who reported high levels of perceived discrimination performed significantly low on memory tests when tested by examiners of different race than African Americans who were tested by examiners of the same race. Glick and White

(2003) also indicated in their study that, English language proficiency and ethnic background were closely intertwined with immigrant status, while both traits had an independent effect on educational achievements. Glick and Hohmann-Marriott (2007), also revealed a significant relationship between ethnicity, race and English proficiency. Sellers, Chavous and Cooke, (1998) in their study on racial ideology and racial centrality as predictors of African American college students' academic performance, opined that, racial ideology was not a significant predictor of students GPA, but racial centrality moderated the relationship between racial ideology and academic performance.

Other researchers have also established that students endorsed traditional academic ethnic stereotypes using indirect measures that examined beliefs about the academic competence of different ethnic groups (Graham & Hudley, 2005).

Chartrand and Bargh (1999) in their examination of stereotypes found that stereotypes are not under any motivational control, but they are uncontrollable and the result of the unconscious action. They further argued that the evidence of controllability is weaker and more problematic than previously realized. Fiske, Cuddy, Glick and Xu (2002), on the other hand, believed that stereotypes and prejudice come from the relative positions of groups in society. Accidents of social history put groups in certain power positions, defining their seeming status and competitiveness. Glick & Rudman (2001) defied the long held assumption that stereotypes were largely role based, grounded in historical roles and embedded in the human psyche from generations of historical story telling.

Self-Concept and Academic Performance

According to Duru (2015), physical, academic, social and transpersonal are the major components of self-concept. The physical aspect of self-concept relates to that which is concrete: what we look like, our sex, height, weight, etc.; what kind of clothes we wear; what kind of car we drive; what kind of home we live in; and so forth. Our academic self-concept relates to how well we do in school or how well we learn. There are two levels: a general academic self-concept of how good we are overall and a set of specific content-related self-concepts that describe how good we are in math, science, language arts, social science, etc. the social self-concept describes how we relate to other people and the transpersonal self-concept describes how we relate to the supernatural or unknowns. The relationship of self-concept to school achievement is very specific. General self-concept and non-academic aspects of self-concept are not related to academic work; general academic achievement measures are related moderately to academic success. Specific measures of subject-related self-concepts are highly related to success in that content area. If academic achievement leads to self-concept, but self-concept is a better predictor of being a low-track or high-track student, it would appear that there is some intervening variable. It's mean the intervening variable is personal expectations (Duru, 2015). Marsh and Craven (2006), reported a reciprocal relationship between academic self-concept and academic achievement. Seaton, Marsh, and Craven (2010) similarly, revealed in their study that, academic achievement is more correlated with academic self-concept because achievements in specific domains (math and English

language) is correlated with the corresponding specific domains of self-concept.

Self-concept refers to the totality of a complex, organized, and dynamic system of learned beliefs, attitudes and opinions that each person holds to be true about his or her personal existence (Tan &Yates, 2007). Self-concept is an important element for each individual and can change his or her belief, attitude, and reaction toward personal and social life. Individuals have various imagine about themselves; as well as, this fact impacts on their behaviours, attitudes, and reactions. One of the main factors that develop this image is self-concept (Weiten, Dunn, & Hammer, 2014). According to Yahaya & Ramli (2009), the self-concept in maintaining physical and psychosocial well-being has been documented by different individuals; some factors are parental education, continuous disappointment, unhappiness, and internal self-critic effect on the development of one's self-concept. Indeed, a positive self-concept can be advance through performing and behaviour, accurately in knowing oneself. Self-concept, in other words, specifies that individuals are selective in their perceptions of stimuli. Similarly, it displays that the self is not just another stimulus in social but is the most significant object of human consideration. Markus & Kittayam (1991), emphasized that different cultures foster dissimilar conceptions of the self.

A positive self-concept can contribute to good academic achievement by student's optimistic personal expectations about himself or herself. Gage & Berliner (1992), research on the relationship between self-concept and school achievement suggests that measures of general or even academic self-concept are not significantly related to school achievement. It is at the level of very

specific subjects (e.g., reading, mathematics, science) that there is a relationship between self-concept and academic success. This suggests that success in a particular subject area is not really changing one's self-concept but rather is impacting one's expectation about future success based on one's past experience (Gage & Berliner, 1992). According to Swann, Jetten, Whitehouse and Bastian (2012), individuals hold a collective or interdependent view of the self that includes their network of social relationship, these variances may, in turn, affect the way we recognize, assess, and present ourselves in about others.

Self-Concept and Gender Stereotypes

Gender stereotyping refers to the traditional perception of boys and girls as well as men and women regarding themselves and each other in the context of what they can or cannot do or whether they are capable of doing well or not so well; how they ought to think or behave purely on the ground of their gender (Delamere & Shaw, 2010; Holdsworth, 2007; Sumsion, Robert & Lee-Thomas, 2005). In a study of black South African school-going adolescents aged 15 and 17 years, Gaganakis (2003) argues that gender stereotyping occurs early in life as one's gender is subjected to a socialisation process, consequently leading to internalization and integration in which, girls are associated with being passive, nurturing, needing approval, emotional, intuitive, while boys are perceived to be rational, assertive, competitive, ambitious, curious and independent. In another South African study of adolescents, Phetla (2007) pointed out that gender-roles were defined on the basis of one's culture marked by differentiation of girls and boys as well as men and women, as they went through socialization. Part of this socialization

entailed the coinage and usage of gender biased nicknames among South Africans (De Klerk & Bosch, 1996).

For Francis and Skelton (2005), gender stereotypic views created a negative influence on adolescents in their choice of career path, females were often less likely to pursue careers in engineering and computer sciences compared to their male counterparts. Adams and Ryan (1999) proposed that features of the child or family that had the most immediate connection to school success also had the greatest influence on academic performance. To show how family relationships affected the school success of children, Adams and Ryan (1999) developed a general model known as the "Family-School Relationship" (FSR).The researchers used this FSR model to show how family relationships affected academic performance using 4,300 boys and girls between the ages of 6 and 11 as the sample for their study. The model showed that socio-economic background and stereotyping played an influential role in the lives of children and had affected many variables in the model. The researchers reported that, higher levels of students' stereotyping resulted directly to more positive or negative attitudes toward school in children. While positive attitudes resulted to higher academic achievement, negative attitudes also resulted to lower academic achievement. Hence, stereotyping is a key determinant of a wide range of social and psychological functioning of students.

Tajfel (1984) and Rutland (1999), also opined that stereotypes were learned early in childhood through socialization instead of direct learning or experience. For Aboud (1988), stereotype influenced cognitive developmental changes of adolescents and affected the way they understood the meaning of

construct, attributes, and change in role-taking. The repercussion is that, in the process of these changes, the adolescents' self-concept might be affected. For Martin, Carlson, and Buskist (2007), stereotype is a relatively positive or negative evaluation of oneself which serves to justify a student's experiences and anticipations. Stereotype has two fundamental repercussions; the anxiety about conforming to the stereotype (i.e., acting to confirm the stereotype) and disengaging oneself from the stereotype (Steele, 1997; Aronson & Fried, 2002). If this assertion is true, then, the individual's self-concept will either be negatively or positively affected depending on the situation. Self-concept in general terms refers to the wide range of self-descriptions made by individuals. Most of the individuals' self-descriptions have been associated with rewards that are likely to elicit very positive images and emotions. This implies that the totality of an individual's behaviour is affected by how the individual perceives himself or herself in terms of these stereotypes.

Demidenko, Tasca, Kennedy, and Bissada (2010) posited that, self-concept contained three key components; self-esteem, stability, and self-efficacy. Self-esteem is the evaluative component, where one makes judgment about his or her self-worth. In their view, stability refers to the organization and continuity of one's self-concept. Self-efficacy, according to them is best explained as self-confidence and is specifically connected to one's abilities. McGraw (2008), stated that, self-concept is a person's composite or collective view of himself or herself across a multi-dimensional set of specific precepts. It is founded on self-knowledge and evaluation or worth of a person's capabilities formed through experience and interpretation of the environment. McLead (2008) perceived self-concept as how people think and evaluate

themselves. Features associated with self-concept include personality, skills, abilities, occupations, hobbies, and physical characteristics, among others. A person's self-concept may change with time as reassessment occurs, this in some cases may result in identity crises (Gerrig & Zimbardo, 2002). Self-concept is not limited to the present; but includes past selves and future selves. The past self, sums up the activities and experiences of the individual in past, while the future self indicates one's proposals and intentions yet to be accomplished. These correspond to hopes, fears, standards, goals, and threats (Santrock, 2009).

Tiedemann (2000) argued that parents' gender stereotypes and expectations for their children may affect children's understanding of themselves. Benner and Mistry (2007) believed that self-concept develops around age 7 or 8, as children are developmentally equipped to begin to interpret their own feelings, abilities, and feedback they received from parents, teachers, and peers about themselves In spite of differing opinions about the onset of development, of self-concept, researchers agree on the importance of one's self-concept. Self-concept influences people's behaviors, and cognitive and emotional outcome, including academic achievement, levels of happiness, anxiety, social integration, self-esteem, and life satisfaction (Marsh & Martin, 2011).

Psychologically, stereotyping affects both males and females and makes them vulnerable toward that direction. For Schmade (2002), the degree to which individuals identified with relevant or irrelevant groups affected how strongly the stereotype influenced their performance and achievement. Self-concept is seen as the way individuals regularly describe themselves in

relation to their physical, social, emotional, and psychological feelings. At the center of self-concept is one's self schema, which is a mental framework, a cognitive structure that organizes individuals' emotions, knowledge, and ideas. Higgins (1987) believed that self-concept has to do with individuals' possible selves. Therefore, one's self concept plays a lot of roles in the development of the person academically, socially, and psychologically. Bem (1981) mentioned that social impact on behaviors can affect the individual's self-concept because individuals always learn about themselves by observing how they behaved. When students are stereotyped and work along the same view, it tends to affect them from different dimensions. Martin and Osborne (1992) stated that individual self-concept was the collection of beliefs, thoughts, and feelings that individuals had about themselves. It is the individual's self-image that is the way the person sees himself or herself.

Self-Concept and Ethnic Stereotypes

The significance and meaning of ethnic identity to one's self-concept represents a crucial component of an adolescent's development especially for indigenous and minority adolescents (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). Cokley (2007), defined ethnic identity as the subjective sense of ethnic group membership that involves being able to identify with a group, creation of a sense of belonging, preference for the group, positive assessment of the ethnic group, ethnic knowledge and participation in ethnic group activities. Ethnicity may also be used to refer to one's ethnic affiliation, or the cultural practices and outlooks of a given community of people that makes them different from others (Giddens, 1997). The dynamic nature of ethnicity has been captured well by Nagel (1994) who made the point that ethnic

identity was "what you think your ethnicity is, versus what they think your ethnicity is" (p. 154). *"Most of a person's everyday life is determined not by their conscious intentions and deliberate choices but by mental processes that are put into motion by features of the environment that operate outside of conscious awareness and guidance*" (Chartrand & Bargh, 1999, p. 5). Thus our tendency to operate socially is predominantly based on unconscious automatic thinking. For members of ethnic minority groups, constructing an identity involves developing a sense of self in relation to an ethnic or cultural group. Thus ethnic minority adolescents have an added task of understanding how their personal identity intertwines with their ethnicity. Smith (1991) further discovered that being embedded or living amongst one's own ethnic/racial group is healthy and may provide individuals the ability to enable their ethnic identities to grow and flourish in a healthy manner and also protects them from developing a vulnerable identity.

Phinney (1992), designed a model of ethnic identity development based on Erickson's conceptualization of the ego identity development process, which in turn was based on Freud's model of psychosexual theory.

The first stage of this model is classified as diffuse (Phinney, 1989). This initial stage is not prominent in one's life, and individuals often give little conscious thought to what their ethnicity entails (Phinney, 1989). This stage is mostly characterized by a little or no exploration of, or commitment to, a specific ethnic identity (Phinney, 1989; Scottham, Cooke, Sellers & Ford, 2010). Individuals at this stage, give little thought to what it means to be a member of a particular ethnic group (Scottham, Cooke, Sellers & Ford, 2010).

The second stage is classified as foreclosed (Phinney, 1989). This stage is also characterized by little or no exploration of ethnicity, however there emerges a strong sense of commitment and clarity about one's own identity (Phinney, 1989; Scottham et al, 2010). An individual at this stage has often committed to a particular identity that reflects his/her relationships to significant others in his life (Scottham et al, 2010). In addition, feelings about one's ethnicity are often internalized, resulting in either positive or negative emotions about his or her ethnicity based upon his or her socialization experiences (Phinney, 1989).

The third stage is classified as moratorium (Phinney, 1989) and is characterized by a time of intense investigation of different ethnic identity issues and balanced commitment.

During this stage individuals try to clarify the personal implications of their ethnicity by immersing themselves into their own culture and take part in various cultural events and activities (Phinney, 1989; Scottham et al, 2010).

The final stage is classified as achieved (Phinney, 1989). Phinney describes this stage as characterized by a strong loyalty to one's personal cultural beliefs and values and a deeper understanding of one's ethnic identity (Scottham et al, 2010). Individuals at this stage have accepted themselves as members of a minority group and have developed a secure understanding of their ethnicity (Phinney, 1989). Such individuals have developed healthy resolutions when confronted with ethnic or racial conflicts (Smith, 1991). In addition, individuals become open to other groups and work towards the common goal of integration and acceptance of all groups (Phinney, 1989). Individuals who achieve ego identity status are found to have a more positive

sense of ethnic identity than individuals with a diffused ego identity (Louis & Liem, 2005).

Various research studies have been conducted by social psychologists demonstrating how individuals who are unknowingly primed with a concept, such as ethnic stereotype unconsciously make changes in their behaviors to match the expected behaviors related to the primed concept. Accordingly, stereotypes that are prevalent in a particular society have the potential to influence an individual's sense of self. Other research suggests that an individual's level of ethnic identity can also be a contributing factor to the susceptibility of stereotype threat (Cohen & Garcia, 2005). If an individual is less identified with a particular social group, he or she is less likely to be affected by the stereotypes associated with that group, compared to someone who is more identified with the group. Other studies have also suggested that an individual's level of self-monitoring can influence the effect of stereotype threat. Low self-monitors are more susceptible to the threat than high self-monitors (Spangenberg & Sprott, 2006). High self-monitors tend to react to stereotype threat with an increase in performance, rather than a decrease (Inzlicht, Aronson, Good, & McKay, 2006). Derman-Sparks, and Higa (1980) in their study to explore the effects that individual and institutional racism had on school children, found that ethnic stereotype impeded children's ability to experience themselves and their culture as they are. It is therefore imperative for an individual to develop a self-concept to help him/her work through the problems that arise in everyday living as well as when dealing with ethnic inequalities and derogatory racial slurs (Epstein, 1973). As indicated by Smith (1991), Oppressive conditions, such as ethnic stereotypes, hampered

individuals' ability to develop their self-concept and to fulfill their full potential (Smith, 1991).

CHAPTER THREE

RESEARCH METHODS

Introduction

Research methodology is the way and manner a researcher systematically and structurally collect, analyse and interpret answers to research questions and hypothesis (Creswell & Creswell, 2017). This section include how the research was carried. Thus, it consists of the research design, the population, sample and sampling procedure, the research instrument that will be used and how data was analysed and processed.

Research Design

This study adopted the descriptive survey research design. Descriptive design was adopted because its purpose is to observe, describe and document the situation as it exists in its current state and as well interpret relationship between variables (Williams, 2007). Amedahe (2002) mentioned that, descriptive research does not only involve accurate description of activities, objects, processes and persons but also involves interpreting the relationship among variables and describing their relationship. Descriptive research design was therefore suitable for this study because, through quantitative approach, the relationship between the variables were interpreted and described in their current state.

Study Area

Tema Metropolis is a coastal district situated about 30 kilometers East of Accra, the Capital City of Ghana. It shares boundaries in the northeast with

the Dangme West District, south-west by Ledzokuku Krowor Municipal, north-west by Adentan Municipal and Ga East Municipal, north by the Akuapim South District and south by the Gulf of Guinea. The Ashaiman Municipal is an in-lock enclave within the Tema Metropolis. The Metropolis covers an area of about 87.8 km2 with Tema as its capital (Ghana Statistical Service 2013).

Tema metropolis is an industrial hub, with a population of 292,773 which represents 7.3% of the total population of the Greater Accra region (Ghana Statistical Service 2013). According to the Population and Housing Census in 2010, the males represent 47.8% of the population while the females make up 52.2% of the population (Ghana Statistical Service, 2013).

Of the population 11 years and above, 91.1 percent are literate and 8.9 percent are non-literate. The proportion of literate males is higher (94.8 %) than that of females (87.8%).About 72.0 percent of the populations aged 15 years and older are economically active. Of the economically active population, 90.4 % are employed while 9.6 % are unemployed. Of the employed population 15 years and older 42.4 % are employees, while 40.8 % are self-employed without employees. The private informal sector is the largest employer in the Metropolis, employing 65.4 % of the population followed by the private formal with 23.6 %. For those who are economically not active, a larger percentage of them are students (50.2%) and 20.2 % perform household duties.

Population

The target population for this study was 4237, representing all seven Senior High School in the Tema municipality. There are seven Senior High

Schools in Tema Municipality (GES Tema, 2017): three schools in the Tema East, three schools in Tema Central and one school in Tema West. Three schools were randomly selected to participate in the study. The accessible population was 1763 representing the three randomly selected schools out of the seven schools in the municipality. Students in form two (2) were purposively selected as participants for the study. Form two students were selected because they were readily available for data collection as compared to form three students who were preparing for their WASCE.

Sample and Sampling Procedure

Multistage sampling technique was used for the study. Purposive sampling technique was used to select the only school in Tema West. Simple random sampling technique was used to select one school each from Tema East and Tema Central Public Senior High Schools out of the seven Public Senior High schools in the Tema Metropolis for the study. With reference to Krejcie and Morgan's table for sample size determination, a population of 4237 should have a total sample of 354. A percentage of the sample size was calculated for each school to arrive at the number of participants to be selected from each school and form. This is represented by the table below.

Table 1 gives a representation of the sampling procedure;

Table 1: Sample Size Proportions for the Selected Schools in Tema Metropolis

Schools	Total number of form 2 students from each school	Sample
Chemu Senior High School	531	106
Tema Technical Institute	689	138
Methodist Day SHS	543	109
Total	1763	354

Source: Field survey, Gaisie (2017)

Data Collection Instruments

The instruments for data collection were in four sections (A, B, C and D). Section A had 30 closed ended items on self-concept, while Section B consisted of 30 closed ended items on ethnic and gender stereotypes. Section C comprised of 20 items on Core Mathematics and section D contained 20 items on Core English language.

The researcher adapted Cambra and Silvestre's (2003) self-concept scale and stereotype inventories (ethnic stereotype inventory and gender stereotype inventory) as instruments to collect data for the study. The instruments were adapted because, the researcher made some changes to the instrument to make it easier for the students to respond to.

The self-concept instrument contained the 30 items structured on Likert scale type of items selected from the Self-concept Scale by Cambra and Silvestre (2003) where students' responses to the items were rated from "strongly agree" to "strongly disagree". The adapted scale consisted of 23 closed ended items, which were connected to three dimensions of self-concept (academic, social and physical).

The researcher also adapted an ethnic stereotype inventory (cultural bridges to justice). The original inventory consists of 26 closed ended items which connected to racial and cultural stereotypes.

There was a test on Core Mathematics and English language to assess participants' academic performance.

Data Collection Procedure

Formal permission was sought, first from the District Education Office and then from the head teachers of the various schools to be involved in the research before information about the seven schools were given. An ethical clearance form was signed by the headmasters of the two selected schools that participated in the research. Permission was then given for the research instrument to be administered.

Ethical clearance was sought from the Institutional Review Board (IRB) of UCC before data was collected. A letter of introduction was also taken from the Department of Education and Psychology to the various schools. At Chemu Senior High School, participants of the research were gathered in the assembly hall to respond to the questionnaire. The hall had been used for the West African Schools Certificate Examination (WASCE) a day before and so the sitting arrangement was ideal. The researcher explained some key terms to the participants; stereotype, gender stereotype, ethnic stereotype and self-concept.

The first part of the questionnaire which consisted of section A (self-concept inventory) and B (ethnic and gender stereotype inventory) was administered and participants were given 15 minutes to respond to the items. After five minutes break the second part of the questionnaire which consisted

of section C (a test on Core Mathematics) and D (a test on English language-Core) was also administered. Participants were given 36 minutes to respond to 20 items on Mathematics and 15 minutes to respond to 20 items on English language.

For Tema technical institute the instrument was administered over a period of 14 working days. Participants could not be gathered at one location to respond to the questionnaire as their assembly hall was being used for examination purposes. The school counsellors and two other teachers assisted in the administration of the questionnaire.

Pre-testing

Two schools (Manhean and Presbyterian) Senior High were selected out of the rest of the five schools in the municipality to participant in the pilot test. These schools were selected primarily because they share similar characteristics with the schools selected for the actual study. These schools however did not form part of the schools selected for the actual study.

Validity

Nitiko (2001) mentioned that, validity is the accuracy of interpretations and uses of students' assessment results. To ensure content validity, the instruments were given to my supervisors for expert opinion about the appropriateness of each item and general coverage of domains before data was collected. The instruments were face and content validated by the supervisors and experts in Measurement and Evaluation from Educational Psychology Department of UCC. The instrument was validated based on the purpose of the study, research questions, and the hypotheses.

Reliability

The self-concept inventory used in the pilot study was originally developed by Cambra and Silvestre (2003). It contained 30 Likert scale items selected from the Self-concept Scale by Cambra and Silvestre (2003) where students' responses to the items were rated from "strongly agree" to "strongly disagree". The adapted scale consisted of items, connected to three dimensions of self-concept (academic, social and physical). Affum-Osei et al (2014) mentioned that, previous studies conducted showed the original scale Cronbach's coefficient alpha to be 0.81 and 0.75.

After the pilot test the researcher recorded a Cronbach's coefficient alpha of .68 which was low. The researcher further removed some items in the instrument that seemed to correlate to arrive at a total of 21 items for the self-concept inventory which was then administered to the participants of the two selected schools for the study.

The researcher arrived at a Cronbach's coefficient alpha of 0.84 for 21 items self-concept inventory, 0.71 for 30 items stereotype inventory, 0.80 for 20 mathematics test items and 0.73 for 10 English test items.

Data Processing and Analysis

Five research questions were answered in this study. Frequency counts and percentages were used to analyse the demographics of the data. Means and standard deviations were used to answer research question 1 and 3. Pearson moment correlation was used to analyse research question 2 and 4. Hierarchical linear regression was used to analyse question 5.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

The prime focus of this study was to investigate the moderating role of self-concept on ethnic and gender stereotypes and academic performance of Senior High School students. Descriptive survey research design was employed for this study to quantitatively describe the phenomenon of self-concept and its moderating role on ethnic and gender stereotypes and academic performance of Senior High School students. An adapted self-concept inventory, stereotype inventory and constructed test instruments on English Language and Mathematics were used to gather data from 259 students. Statistical tools such as means and standard deviation, frequencies and percentage, Pearson product moment correlation, and hierarchical multiple regression were used to analyse the data.

The results are presented with discussions based on the research questions and hypothesis that guided this study. All hypothesis are tested at 0.50 level of significance.

Demographic Data

The results on the respondents' demographics is presented in a table and a graph below.

Table 2: Gender and Programme Distribution of Students

Gender	**Frequency**	**Percent**
Female	151	42.7%
Male	203	57.3%
Total	*354*	*100%*
Programme	**Frequency**	**Percent**
Science	37	10.5%
Technical	44	12.4%
General Arts	48	13.6%
Home Economics	46	13%
Fashion	20	5.6%
Electricals	26	7.3%
Motor vehicle engineering	39	11%
Visual Arts	44	12.4%
Photography	22	6.2%
Business	28	7.9%
Total	*354*	*100%*

Source: Field survey, Gaisie (2018)

Results from Table 2 shows that, 57.3% (203) were male students and female students representing 42.7% (151). With programme of study, majority of the students offer General Arts 13.6% (48), followed by Home Economics 13% (46), Technical 12.4% (44) and Visual Arts 12.4% (44).

Table 3: Descriptive Statistics on the Age of the Students

	Number (N)	Minimum	Maximum	Mean	Std. Deviation
Age	354	14	24	17.49	1.450

Source: Field survey, Gaisie (2018)

Table 3 indicates that, the minimum age of the students was 14 and the maximum age was 24. The mean age of the students was M= 17.49, SD= 1.450.

Ethnic Group Distribution of Students

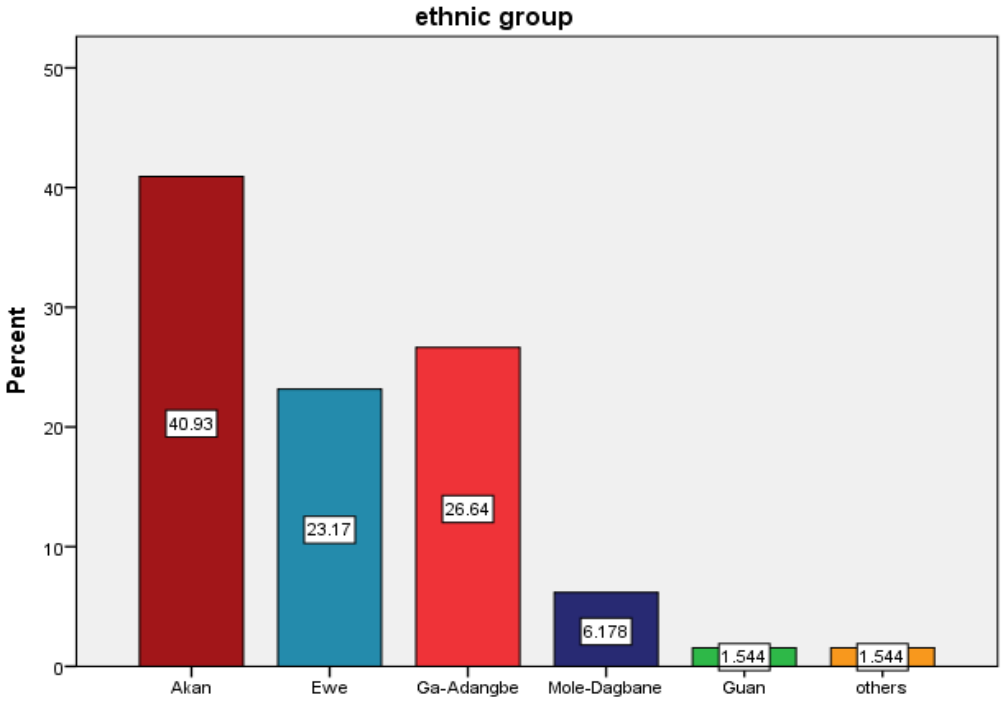

Figure 1: Ethnic Group Distribution of Students

Source: Field survey, Gaisie (2018)

In relation to the ethnic group distribution of the students, most of the respondents were Akans (40.93%) followed by Ga-Adangbe (26.64%) and Ewe (23.17%) while few of them were Guans and others (1.54%) as shown in Fig 1.

Analysis of Data Relating to the Research Questions

Research question 1

What is the level of self-concept of Senior High School students of Chemu and Tema Technical Institute?

This research question sought to examine the level of self-concept of Senior High School students. The level of students' self-concept was measured against standard levels, which were; 82 and above (very high self-concept), 62 to 81 (high self-concept), 43 to 61 (moderate), 24 to 42 (low self-concept) and 23 and below (very low).

Table 2 represents the standard scale and levels of students' self-concept. It is worth noting that, there is no possible zero score on self-concept.

Table 4: Standard Levels of Self-Concept

Scale	Level
82 and above	Very high self-concept
62 to 81	High
43 to 61	Moderate
24 to 42	Low
23 and below	Very low

Source: Field survey, Gaisie (2018)

Table 4 captures the results of .the level of self-concept of students in Tema Technical Institute.

Table 5: Descriptive Statistics on the Level of Students' Academic Self-Concept

	N	Minimum	Maximum	Mean	Std. Deviation
Academic Self-Concept	354	34	80	63.03	7.700

Source: Field survey, Gaisie (2018)

Results from Table 5 show that the mean score of students' level of academic self-concept was 63.03 (SD= 7.700) which indicated that students have high levels of academic self-concept in comparison with the standard high score which was 63. The minimum score however, was 34 and the maximum was 80. The components of self-concept measured were; academic self-concept and belief of self. In line with Roger's (1980) concept of the ideal self, the students' high level of academic self-concept was an indication of the fact that, the students placed high value on themselves and strived to achieve their academic goals. This result is consistent with the work of Laryea, Saani and Dawson-Brew (2014) who also reported that, students had high and positive academic self-concept which is very important in helping studnts achieve academic excellence. Likewise Dramanu and Balarabe (2013) also reported high positive academic self-concept of students and further mentioned that, students with high academic self-concepts are more likely than those with low academic self-concept to study hard and perform well academically.

Research question 2

What is the relationship between students' self-concept and academic performance?

This research question sought to establish the relationship between students' academic self-concept and academic performance using Pearson Product Moment Correlation Coefficient. Table 6 captures the results of the Pearson Product Moment Correlation between students' academic self-concept and academic performance.

Table 6: Pearson Product Moment Correlation between Students' Academic Self-concept and Academic Performance

		Academic Performance
Self-concept	Pearson Correlation	.103
	Sig. (2-tailed)	.048
	N	354

Source: Field survey, Gaisie (2018)

Results from Table 6 indicate a statistically significant positive weak relationship r =.103 (p = .048) between students' academic self-concept and their academic performance. This result is consistent with the work of McInerney et al. (2012), who identified a positive reciprocal relationship between academic self-concept and academic achievement in mathematics and English Language. Marsh and Craven (2006), reported a reciprocal relationship between academic self-concept and academic achievement. Seaton, Marsh, and Craven (2010) similarly, revealed in their study that, academic achievement was more correlated with academic self-concept

because achievements in specific domains (mathematics and English language) was correlated with the corresponding specific domains of self-concept.

The relationship between academic self-concept and academic performance identified in this study was eminent because, academic self-concept and its enhancement through several research, has been identified as a central goal of education, and considered as an important mediating factor that facilitates the attainment of desirable learning, psychological, and behavioural outcomes (Craven, Marsh, & Burnett, 2003). Gage & Berliner (1992), revealed similar results in their work on the relationship between self-concept and school achievement, and concluded that, there was a relationship between self-concept and academic success. However, Gage and Berliner (1992) argued that, success in a particular subject area will not necessarily change one's self-concept but rather will impact one's expectation about future success based on one's past experience.

Research question 3

What is the level of gender and ethnic stereotypes of Senior high School students?

This research question aimed at identifying the level of gender and ethnic stereotypes of Senior High School students. Students' level of gender and ethnic stereotypes was measured against standard levels in line with the stereotype inventories adapted for the study. The levels of gender stereotype included; 49 and above (very high gender stereotype), 38 to 48 (high ethnic stereotype), 28 to 37 (moderate ethnic stereotype), 17 to 27 (low ethnic stereotype) and 16 and below (very low ethnic stereotype).With ethnic

stereotype, the levels of degree included; 53 and above (very high ethnic stereotype), 41 to 52 (high ethnic stereotype), 29 to 40 (moderate ethnic stereotype), 18 to 28 (low ethnic stereotype) and 17 and below (very low ethnic stereotype).

Table 7 displays the standard levels of gender stereotype.

Table 7- Levels of Gender Stereotype

Scale	Level
49 and above	Very high gender stereotype
48 to 38	High
37 to 28	Moderate
27 to 17	Low
16 and below	Very low

Source: Field survey, Gaisie (2018)

Table 8 captures the standard levels of ethnic stereotypes.

Table 8- Levels of Ethnic Stereotype

Scale	Level
53 and above	Very high gender stereotype
52 to 41	High
40 to 29	Moderate
28 to 18	Low
17 and below	Very low

Source: Field survey, Gaisie (2018)

Table 8 is a representation of the descriptive statistics on the degree of gender and ethnic stereotypes of students from Tema Technical Institute.

Table 9: Descriptive Statistics on the Levels of Gender and Ethnic Stereotype of Students

	N	Minimum	Maximum	Mean	Std. Deviation
Gender Stereotypes	354	19	70	41.30	6.271
Ethnic Stereotypes	354	24	64	35.44	5.952

Source: Field survey, Gaisie (2018)

Results from Table 9 indicate that, the mean score of students' gender stereotype was 41.30 (SD= 6.271) with the minimum score of 19 and the maximum of 70. The mean score for their ethnic stereotype was 35.44 (SD= 5.952) with a minimum score of 24 and a maximum score of 64. The gender and ethnic stereotypes results of the students revealed that, they had high degree of gender stereotype in comparison with the gender stereotype standard high score which was 38 and had moderate degree of ethnic stereotype in comparison with the ethnic stereotype standard high score which was 41.

Results from both schools on their level of gender and ethnic stereotypes indicated that, students believed to some extent, they were stereotyped based on their gender and ethnicity. Thus there was the general belief among the students that, one's gender or ethnicity makes them feel less competent or inferior to others. This general feeling was as a result of societal misconceptions about gender roles and ethnic differences. It is however not surprising that Judge and Robbins (2015) in their work argued that, the acceptance and diffusion of stereotypes among people may lead to biases in

evaluating one's competences and abilities. Appel and Kronberger (2012) in their study on ethnic sterotype, also established that students held clear, negative stereotypes of students of other ethnic groups. Since the Tema metropolis where both schools are located, is a popular destination of migrants with several ethnic groups, it was not surprising to note that there was a high degree of ethnic stereotype among students from both schools.

Research question 4

What is the relationship between gender stereotype, ethnic stereotype and academic performance of students?

The purpose of this research question was to establish the relationship between gender stereotype, ethnic stereotype and academic performance through Pearson moment correlation coefficient. The results are presented in Table 10 and Table 11.

Table 10: Pearson Correlation between Gender Stereotype and Students' Academic Performance

		Academic Performance
Gender Stereotype	Pearson Correlation	-.123*
	Sig. (2-tailed)	.047
	N	354

* Correlation is significant at the 0.05 level (2-tailed).

Source: Field survey, Gaisie (2018)

Result from Table 10 shows a statistically significant negative weak relationship r = -.123, p = .047 between gender stereotype and students' academic performance. The results indicated that, students experienced some

degree of gender stereotype. They believed to some extent that, their gender differences made them feel less competent or inferior to others. Judge et al (2015) argued that, the acceptance and diffusion of stereotypes among people may lead to biases in evaluating one's competences and abilities. This result was in congruence with the findings of Smetackova's (2015), work on gender stereotypes, performance and identification with math. She identified a negative weak relationship r = -.244 between students' academic performance and gender stereotype, and further revealed that, both male and female students differ in beliefs about mathematics. They perceived mathematics as an area associated with masculinity. Male students believed that it could be the source of their positive identity and motivation. Smetackovaa concluded that, most female and even male students' stereotypical beliefs about math as masculine field could be a source of different individual approaches to math. This result is consistent with the work of Fan, Umaru and Nseendi (2016) on students' academic achievements in English Language with gender as a matter of concern. They reported no significant relationship between gender and academic performance of students. Khwaileh and Zaza (2011) also reported a significant relationship between students' GPA and gender stereotype. But they did not specify the programmes that summed up the students' GPA. Cvencek, Kapurb and Meltzoffa (2015), conducted a study on math achievement, stereotypes, and math self-concepts among elementary-school students in Singapore and reported similar results as identified in this study. They reported that, implicit math–gender stereotypes were significantly related to achievement in math. Cvencek, Kapurb and Meltzoffa (2015), suggested that, measuring individual differences in non-academic factors such

as gender stereotypes may be a useful tool for educators in assessing students' academic outcomes. On the contrary, Kapur and Cvencek (2010) in their study on implicit social cognition as a predictor of academic performance reported a positive relationship between implicit math-gender stereotype and achievement in math.

Table 11: Pearson Correlation between Ethnic Stereotype and Academic Performance of Students

		Academic Performance
Ethnic Stereotype	Pearson Correlation	-.386*
	Sig. (2-tailed)	.000
	N	354

*Correlation is significant at the 0.05 level (2-tailed).

Source: Field survey, Gaisie (2018)

From the table, the relationship between ethnic stereotype and academic performance of students is a statistically significant negative relationship (r = -.386, p = .000). Shih, Pittinsky and Ambady (1999) reported similar result in their study on stereotype susceptibility: identity salience and shifts in quantitative performance. They revealed that, there was a relationship between ethnic stereotype and performance in quantitative tasks like mathematics. Shih et al (1999) indicated that, Asian-American female students performed better on a mathematics test when their ethnic identity was activated. They argued that, implicit activation of a sociocultural stereotype could influence the performance of the stereotyped individual. Similar result was also evident in the work of Cheryan and Bodenhausen (2000) on the

threat positive stereotypes had on intellectual performance: the psychological hazards of "model minority" status. They reported a significant relationship between ethnicity and performance in mathematics. Cheryan and Bodenhausen (2000), revealed that, ethnicity salience in test taking among students resulted in diminished ability to concentrate, which in turn led to significantly decreased math performance. Ryan and Ryan (2005), also mentioned in their study on psychological processes underlying stereotype threat and standardized math test performance that, stereotypes based on ethnicity affected academic performance of students. Thus negative ethnic stereotypes could create a situational pressure that could affect students' performance. Thames, Hinkin, Byrd, Bilder, Duff, Mindt, Arentoft and Streiff (2013), revealed similar result in their study on the effects of stereotype threat, perceived discrimination, and examiner race on neuropsychological performance. They identified a significant relationship between race and neuropsychological performance in which African Americans who reported high levels of perceived discrimination performed significantly low on memory tests when tested by examiners of different race than African Americans who were tested by examiners of the same race. Glick and White (2003) also indicated in their study that, English language proficiency and ethnic background were closely intertwined with immigrant status, while both traits had an independent effect on educational achievements. Glick and Hohmann-Marriott (2007), also revealed a significant relationship between ethnicity, race and English proficiency of students.

Research Question 5

What is the moderating role of academic self-concept on the relationship between ethnic stereotype, gender stereotype and academic performance of students of Chemu and Technical Institute?

This research question aimed at investigating the moderating role of self-concept on the influence of gender and ethnic stereotypes on academic performance of students of Chemu and Technical Institute using hierarchical multiple linear regression.

Table 25 is a correlation matrix between academic performance (dependent), gender and ethnic stereotype (independent) and self-concept (moderating role).

Table 12- Hierarchical Linear Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.329[a]	.108	.105	3.644	.108	31.120	1	257	.000
2	.335[b]	.112	.105	3.642	.004	1.229	1	256	.269

a. Predictors: (Constant), Stereotype (Gender and Ethnic).

b. Predictors: (Constant), Stereotype (Gender and Ethnic), Academic Self-Concept.

c. Dependent Variable: Academic Performance.

Result from Table 12 is a model summary of the hierarchical linear regression on the moderating role of academic self-concept on stereotype and academic performance. From the table, the R square change (R^2) of the second model shows that academic self-concept is contributing $R^2 = .004$ (0.4%) variation explained in moderating role. However, the result is not statistically significant ($p = .269$, $p > 0.05$). It cannot be concluded that academic self-concept can moderate the relationship between gender stereotype, ethnic stereotype and academic performance of students.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The main purpose of this study was to investigate the moderating role of self-concept on gender, ethnic stereotypes and academic performance of Senior High School students.

Descriptive survey research design was employed for the study to quantitatively describe the phenomenon of academic self-concept and its moderating role on stereotype and academic performance of students. An adapted academic self-concept, stereotype inventory and a constructed test instruments on English Language and Mathematics were used to gather data from 354 students. Statistical tools such as means and standard deviations, frequencies and percentages, Pearson product moment correlation, and hierarchical multiple regression were used to analyse the data.

Key Findings

The following findings were obtained from the study.

1. Senior High school students in this study recorded high or positive levels of academic self-concept.
2. A statistically significant positive relationship between self-concept and academic performance of students was established. In order words, the study established that, the higher a student's academic self-concept the higher the academic performance.

3. Senior High School students exhibited a moderate level of gender and ethnic stereotypes.
4. There was a statistically significant negative relationship between gender stereotype, ethnic stereotype and academic performance of students. Thus, the lower the level of stereotype, the higher the academic performance and vice versa.
5. Self-concept did not moderate the influence of gender and ethnic stereotypes on the academic performance of students.

Conclusions

The study's research questions were worth investigating, as the results confirmed certain predictions as well as unravel certain misconceptions. It was expected that self-concept would moderate the influence of gender and ethnic stereotypes on students' academic performance however the results did not conform to this expectation. Nonetheless, the result demonstrated that, academic self-concept had no moderation on the influence of gender and ethnic stereotype on academic performance. Considering the high level of students' academic self-concept, it was expected that, self-concept could moderate the influence of stereotype on academic performance and be the best predictor of academic performance.

Recommendations

1. Considering the implicit result conveyed by negative stereotypes on students: a student may be assumed to be inherently less capable because of ethnicity, gender or some other characteristic. Situations that elicit stereotype threat among students may also result in fixed mind-set beliefs, at least temporarily. These fixed mind-sets and

stereotype threats share similar negative impacts on students' performance and learning. Teachers as well as parents should encourage a positive mind-set of accepting diversity in gender or ethnicity; this could counter the fixed messages embedded in stereotypes.

2. Teachers can provide students with an alternative explanation for the anxiety and distraction they may experience in order to reduce stereotype threat- as some students often think low performance or academic struggles are due to their own limited ability. These perceptions are likely to occur under the influence of negative stereotypes. Teachers can achieve this by reassuring students that, these difficulties are normal part of the learning process and that many other students like them have struggled, overcome difficulties and experienced success. Students should be empowered by teachers to discover their uniqueness.
3. If students are aware of how stereotype can affect their performance, they will be less susceptible to being affected by it. Consequently, learning about this phenomenon will lead to a better understanding and awareness of stereotype activation and how it functions. Awareness of this process may create a buffer for the individual and will, in the future, empower them to consciously resist forms of unconscious manipulation that may lead them to behave in accordance with stereotype expectations or it may increase their awareness of how they may engage in resisting stereotype confirmation.

Suggestions for Further Research

Based on the findings and conclusions of the study, the following suggestions are made for further studies:

1. A similar study may be conducted using qualitative research approach to review the moderating role of self-concept on ethnic and gender stereotypes and academic performance.
2. It was evident form this study that, self-concept was not able to moderate the effect of gender and ethnic stereotypes on academic performance significantly. The researcher would like to suggest that, further studies could be conducted to identify a psychological construct that could significantly moderate the effect of stereotypes on academic performance.
3. Similar studies may be conducted using Tertiary students as participants to ascertain the moderating role of self-concept on stereotypes and academic performance.
4. The study could also be replicated using a larger and more diverse sample.

REFERENCES

Aboud, F. E. (1988). *Children and prejudice*. B. Blackwell.

Aboud, F. E. (2005). The development of prejudice in childhood and adolescence. On the nature of prejudice: *Fifty years after Allport*, 310-326.

Aboud, F. E., & Doyle, A. B. (1996). Parental and peer influences on children's racial attitudes. *International Journal of Intercultural Relations*, *20*(3-4), 371-383.

Abrams, D., & Hogg, M. A. (1988). Comments on the motivational status of self-esteem in social identity and intergroup discrimination. *European Journal of Social Psychology*, *18*(4), 317-334.

Adams, G. R., & Ryan, B. A. (1999). How do families affect children's success in school? *Education Quarterly Review*, *6*(1), 30.

Adigun, J., Onihunwa, J., Irunokhai, E., Sada, Y., & Adesina, O. (2015). Effect of Gender on Students' Academic Performance in Computer Studies in Secondary Schools in New Bussa, Borgu Local Government of Niger State. *Journal of Education and Practice*, *6*(33), 1-7.

Affum-Osei, E., Adom, E. A., Barnie, J., & Forkuoh, S. K. (2014). Achievement motivation, academic self-concept and academic achievement among high school students. *European Journal of Research and Reflection in Educational Sciences*, *2*(2).

Affum-Osei, E., Adom, E. A., Josephine, B., & Solomon, F. K. (2014). Achievement motivation, academic self-concept and academic achievement among high school students. *European Journal of Research and Reflection in Educational Sciences*, *2*(2).

Allport, G. (1954). *The nature of prejudice*. Cambridge, MA: Addison-Wesley.

Ambady, N., Shih, M., Kim, A., & Pittinsky, T. L. (2001). Stereotype susceptibility in children: Effects of identity activation on quantitative performance. *Psychological Science*, 12, 385-390.

Ampofo, E. T., & Osei-Owusu, B. (2015). Students' academic performance as mediated by students' academic ambition and effort in the public senior high schools in Ashanti Mampong Municipality of Ghana: *International Journal of Academic Research and Reflection. 3*(5),19-35.

Anand, R. (2013). Gender Stereotyping in Indian Recruitment Advertisements: A content analysis. *International Journal of Business Governance and Ethics*, *8*(4), 306-322.

Ankomah, Y., Koomson, J., Bosu, R., & Oduro, G K.T. (2005). *Implementing Quality Education in Low Income Countries* .University of Cape Coast Ghana. Institute for Educational Planning and Administration. p.14

Apaak D. (2016). Gender effect on academic performance of junior high school athlestes in Ghana: A case study of Komenda, Edina, Eguafo, and Abirem municipality in central region. *International Journal of Physical Education, Sports and Health*, *3*(2), 355-364.

Aronson, J., Fried, C. B., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, *38*(2), 113-125.

Asante, K. O. (2010). Sex differences in mathematics performance among senior high students in Ghana. *Gender and Behaviour, 8*(2), 3279-

3289. Retrieved from https://www.researchgate.net/publication/231598245_Sex_Differences_in_Mathematics_Performance_among_Senior_High_Students_in_Ghana

Averhart, C. J., & Bigler, R. S. (1997). Shades of meaning: Skin tone, racial attitudes, and constructive memory in African American children. *Journal of Experimental Child Psychology, 67*(3), 363-388.

Awad, G. H. (2007). The role of racial identity, academic self-concept, and self-esteem in the prediction of academic outcomes for African American students. *Journal of Black Psychology*, *33*(2), 188-207.

Banks, S. (1995). *Introduction. In Ethics and Values in Social Work* (pp. 1-7). Palgrave, London.

Barber, B., & Olsen, J. (2004). Assessing the transitions to middle and high school. *Journal of Adolescent Research, 19,* 3-30.

Beech, N., & Huxham, C. (2003). Cycles of identity formation in inter-organizational collaborations. *International Studies of Management & Organization, 33*(3), 28-52.

Beilock, S. L., Rydell, R. J., & McConnell, A. R. (2007). Stereotype threat and working memory: Mechanisms, alleviation, and spillover. *Journal of Experimental Psychology*, *136,* 256 -276.

Bem, B. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review, 88*, 354-364.

Bem, S. L. (1981). *The BSRI and gender schema theory: A reply to Spence and Helmreich*.

Benner, A. D., & Mistry, R. S. (2007). Congruence of mother and teacher educational expectations and low-income youths' academic competence. *Journal of Educational Psychology, 99*, 140-153.

Berecz, J. M. (2009). *Theories of personality: A zonal perspective.* Boston: Pearson Education, Inc.

Bern, S. L. (1981). Bern sex-role inventory: Professional manual. Palo Alto, CA: Consulting Psychologists.

Biggs, M. (2009). *Self-fulfilling prophecies*. The Oxford handbook of analytical sociology, 294-314.

Bigler, R. S., & Liben, L. S. (2007). Developmental intergroup theory: Explaining and reducing children's social stereotyping and prejudice. *Current Directions in Psychological Science, 16*(3), 162-166.

Bigler, R. S., Averhart, C. J., & Liben, L. S. (2003). Race and the workforce: Occupational status, aspirations, and stereotyping among African American children. *Developmental Psychology, 39*(3), 572.

Bizumic, B. (2015). Ethnocentrism. In R. A. Segal & K. von Stuckrad (Eds.), *Vocabulary for the study of religion* (Vol. 1, pp. 533–539). Leiden, the Netherlands: Brill Academic Publishers.

Bolger, N., & Kellaghan, T. (1990). Method of measurement and gender differences in scholastic achievement. *Journal of Educational Measurement, 27*(2), 165-174.

Bourhis, R.Y. (2012). John C. Turner. *Journal of Language and Social Psychology, 31*(2) 135 –137. Retrieved from http://journals.sagepub.com/doi/pdf/10.1177/0261927X12438537

Buckley, P., & Doyle, E. (2016). Gamification and student motivation. *Interactive Learning Environments, 24*(6), 1162-1175.

Cambra, C., & Silvestre, N. (2003). Students with special educational needs in the inclusive classroom: Social integration and self-concept. *European Journal of Special Needs Education, 18*(2), 197-208.

Chartland T. L., & Bargh, J. A. (1999). The unbearable automaticity of being. *American Psychologist*, 54, 462-479.

Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: the perception–behavior link and social interaction. *Journal of Personality and Social Psychology*, *76(*6), 893.

Cheryan, S., & Bodenhausen, G. V. (2000). When positive stereotypes threaten intellectual performance: The psychological hazards of "model minority" status. *Psychological Science, 11*(5), 399-402.

Chickering, A. W., & Reisser, L. (1993). Education and identity (2nd ed.). San Francisco: Jossey-Bass.

Cloninger, S. C. (1993). *Theories of personality: understanding persons*. New Jersey: Prentice- Hall, Inc.

Cohen, G. L., & Garcia, J. (2005). "I am us": Negative stereotypes as collective threats. *Journal of Personality and Social Psychology, 89*, 566–582.

Cohen, G. L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science, 313*(5791), 1307-1310.

Cokley, K. (2000). An investigation of academic self-concept and its relationship to academic achievement in African American college students. *Journal of Black Psychology, 26*(2), 148-164.

Cokley, K. (2007). Critical issues in the measurement of ethnic and racial identity: A referendum on the state of the field. *Journal of Counseling Psychology, 54*(3), 224.

Cokley, K. O. (2002). Ethnicity, gender, and academic self-concept: A preliminary examination of academic dis-identification and implications for psychologists. *Cultural Diversity and Ethnic Minority Psychology*. *8*(4), 378–388.

Connell, R. W. (2014). Gender and Power: Society, the person and sexual politics. John Wiley & Sons.

Craven, R. G., Marsh, H. W., & Burnett, P. C. (2003). *Cracking the self-concept enhancement conundrum: A call and blueprint for the next generation of self-concept enhancement research.*

Croizet, J. C., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin*, 24, 588-594.

Cvencek, D., Kapur, M., & Meltzoff, A. N. (2015). Math achievement, stereotypes, and math self-concepts among elementary-school students in Singapore. *Learning and Instruction, 39*, 1-10.

Dayioğlu, M., & Türüt-Aşik, S. (2007). Gender differences in academic performance in a large public university in Turkey. *Higher Education, 53*(2), 255-277.

De Klerk, V., & Bosch, B. (1996). Nicknames as sex-role stereotypes. *Sex Roles, 35*(9-10), 525-541.

Delamere, F. & Shaw, S.M. (2010) 'Doing leisure, doing gender: Children's perspectives on leisure within the family context. Retrieved from http://www.lin.ca/Uploads/Cdrio/ OCCUIO-23pdf.

Demidenko, N., Tasca, G. A., Kennedy, N., & Bissada, H. (2010). The mediating role of self-concept in the relationship between attachment insecurity and identity differentiation among women with an eating disorder. *Journal of Social and Clinical Psychology, 29*(10), 1131-1152.

Derman-Sparks, L., Higa, C. T., & Sparks, B. (1980). Children, race and racism: How race awareness develops. *Interracial Books for Children Bulletin, 11*(3/4), 3-15.

DeRobertis, E. M. (2006). Deriving a humanistic theory of child development from the works of Carl R. Rogers and Karen Horney. *The Humanistic Psychologist*, *34*(2), 177–199. Retrieved from https://www.researchgate.net/publication/233053015_Deriving_a_Humanistic_Theory_of_Child_Development_From_the_Works_of_Carl_R_Rogers_and_Karen_Horney

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*(1), 5.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56*(1), 5.

Diekman, A. B. & Eagle A. H. (2000), "Stereotypes as dynamic constructs: Women and men of the past, present, and future." *Personality & Social Psychology Bulletin, 26*(10), 1171-1188.

Driessen, G., & Van Langen, A. (2013). Gender differences in primary and secondary education: Are girls really outperforming boys? *International Review of Education, 59*(1), 67-86.

Duru, C. K. (2015). *Antisocial Personality and Aggressive Behaviour Intention among Secondary School Children in Malaysia.*

Dyer, R. (1999). *The role of Stereotypes* in Paul Marris and Sue Thornham: Media Studies: A Reader, 2nd Edition, Edinburgh University Press.

Eagly, A. H. (1995). The science and politics of comparing women and men. *American Psychologist, 50*(3), 145.

Eagly, A. H., Wood, W., & Diekman, A. B. (2000). Social Role Theory of Sex Differences and Similarities: A current appraisal. *The developmental social psychology of gender*, 123-174.

Eccles, J. S., Wigfield, A., Midgley, C., Reuman, D., Iver, D. M., & Feldlaufer, H. (1993). Negative effects of traditional middle schools on students' motivation. *The Elementary School Journal, 93*(5), 553-574.

Else-Quest, N. M., Hyde, J. S., & Linn, M. C. (2010). Cross-national patterns of gender differences in mathematics: a meta-analysis. *Psychological Bulletin, 136*(1), 103.

Engler, B. (2003). *Personality theories: An introduction* (6th ed.). Boston: Houghton Miffin Company.

Epstein, S. (1973). The self-concept revisited: Or a theory of a theory. *American Psychologist, 28*(5), 404.

Erikson, E. H. (1968). Life cycle. *International Encyclopaedia of the social sciences, 9*, 286-292.

Fan, F. A., Umaru, R. I., & Nseendi, L. N. T. (2016). Students' academic achievements in English language: does gender matter? Retrieved from http://www.eajournals.org/journals/international-journal-of-education-learning-and-development-ijeld/vol-4-issue-4-may-2016/students-academic-achievements-in-english-language-does-gender-matter/.

Fiske, S. T. (1993). Social cognition and social perception. *Annual Review of Psychology*, *44*(1), 155-194.

Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878-902.

Francis, B., & Skelton, C. (2005). *Reassessing gender and achievement: Questioning contemporary key debates*. Routledge.

Gaganakis, M. (2003). Gender and future role choice: a study of black adolescent girls. *South African Journal of Education, 23*(4), 281-286.

Gage, N., & Berliner, D. (1992). *Educational psychology* (5th ed.). Boston: Houghton Mifflin.

Gerardi, S. (1990). Academic self-concept as a predictor of academic success among minority and low-socioeconomic status students. *Journal of College Student Development.*

Gerrig, R. J., & Zimbardo, P. G. (2002). *Glossary of psychological terms (psychology and life*). Boston, MA: Allyn & Bacon

Ghana. Statistical Service. (2013). *2010 Population & Housing Census: National Analytical Report*. Ghana Statistics Service.

Giddens, A. (1997). *Sociology* (3rd ed.). Cambridge: Polity Press.

Glick, J. E., & Hohmann-Marriott, B. (2007). Academic performance of young children in immigrant families: The Significance of race, ethnicity, and national origins 1. *International Migration Review, 41*(2), 371-402.

Glick, J. E., & White, M. J. (2003). Academic trajectories of immigrant youths: Analysis within and across cohorts. *Demography*, *40*(4), 759-783.

Glick, P., & Rudman P. (2001). Prescriptive Gender stereotyping and Backlash toward Agentic women. *Journal of Social Issues*, *57*(4), 743-762.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: attitudes, self-esteem, and stereotypes. *Psychological Review, 102*(1), 4.

Grice, J. W. (2007). Person-centered structural analyses. In R. Robins, C. Fraley, and R. Krueger (Eds.) *Handbook of research methods in personality psychology* (pp. 557-572).New York, NY: Guilford Press.

Gulati, S. (2008). Technology-enhanced learning in developing nations: A review. *The International Review of Research in Open and Distributed Learning, 9*(1).

Halpern, D. F., Benbow, C. P., Geary, D. C., Gur, R. C., Hyde, J. S., & Gernsbacher, M. A. (2007). The science of sex differences in science and mathematics. Psychological science in the public interest: *A Journal of the American Psychological Society, 8*(1), 1-51.

Hamilton, D. L., & Sherman, S. J. (1989). *Illusory correlations: Implications for stereotype theory and research. In Stereotyping and prejudice* (pp. 59-82). Springer, New York, NY.

Hamilton, D. L., & Trolier, T. K. (1986). Stereotypes and stereotyping: An overview of the cognitive approach.

Haslam, S. A., Oakes, P. J., McGarty, C., Turner, J. C., Reynolds, K. J., & Eggins, R. A. (1996). Stereotyping and social influence: The mediation of stereotype applicability and sharedness by the views of in-group and out-group members. *British Journal of Social Psychology, 35*(3), 369-397.

Haslam, S. A., Reicher, S. D., & Reynolds, K. J. (2012). Identity, influence, and change: Rediscovering John Turner's vision for social psychology. *British Journal of Social Psychology, 51*, 201–218.

Haslam, S. A., Turner, J. C., Oakes, P. J., McGarty, C., & Hayes, B. K. (1992). Context-dependent variation in social stereotyping 1: The effects of intergroup relations as mediated by social change and frame of reference. *European Journal of Social Psychology, 22*(1), 3-20.

Hedges, L. V., & Nowell, A. (1995). Sex differences in mental test scores, variability and numbers of high scoring individuals. *Science, 269*(5220), 41-45.

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of social issues, 57*(4), 657-674.

Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for Success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, *89*(3), 416-427.

Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the contact hypothesis.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94*, 319-340.

Hilton, J. L., & Von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology 47*, 237-271

Hilton, J. L., & Von Hippel, W. (1996). Stereotypes. *Annual Review of Psychology*, *47*(1), 237-271.

Holdsworth, V. (2007). Schooling beyond gender stereotypes. *Commonwealth Quarterly, 13*. Retrieved from http://www.thecommonwealth.org/EZInformation/172204/schooling

Hudley, C., & Graham, S. (2005). Race and ethnicity in the study of motivation and competence. *Handbook of Competence and Motivation,* 392-413.

Inzlicht, M., Aronson, J., Good, C., & McKay, L. (2006). A particular resiliency to threatening environments. *Journal of Experimental Social Psychology*, *42*(3), 323-336.

Ismail, N. A. H., & Tekke, M. (2015). Rediscovering Rogers's self-theory and personality. *Journal of Educational, Health and Community Psychology*, *4* (3), 28-36.

Joffe, H., & Staerklé, C. (2007). The centrality of the self-control ethos in Western aspersions regarding outgroups: A social representational approach to stereotype content. *Culture & Psychology, 13*, 395-418.

Jost, J. T., & Banaji, M. R. (1994). The role of stereotyping in system-justification and the production of false consciousness. *British Journal of Social Psychology, 33(*1), 1-27.

Judge, T. A., Robbins, S. P. (2015). *Essentials of Organizational Behavior*. (13th ed.). Pearson.

Kaiser, C. R., Major, B., & McCoy, S. K. (2004). Expectations about the future and the emotional consequences of perceiving prejudice. *Personality and Social Psychology Bulletin, 30*, 173–184.

Kapur, M., & Cvencek, D. (2014). Implicit social cognition as a predictor of academic performance. Retrieved from https://repository.nie.edu.sg/handle/10497/16590.

Katz, D., & Braly, K. (1933). Racial stereotypes of one hundred college students. *Journal of Abnormal and Social Psychology, 28*, 280-290.

Keuschnigg, M., & Wolbring, T. (2016). *Robert K. Merton*. Pp. 177-184 in: Kraemer, K. and F. Brugger (eds.) Key Works of Economic Sociology. Wiesbaden: Springer VS

Khwaileh, F. M., & Zaza, H. I. (2011). Gender differences in academic performance among undergraduates at the University of Jordan: Are they real or stereotyping. *College Student Journal, 45*(3), 633-648.

Ladegaard, H. J. (2011). Stereotypes and the discursive accomplishment of intergroup differentiation: Talking about the other in a global business organization. *International Pragmatics Association, 21*(1), 85-109.

Larsen, R.J., & Buss, D.M. (2008). Psychology of personality. Zagreb, 2007 Naklada Slap. Retrieved from http://www.worldcat.org/title/personality-psychology-domains-of-knowledge-about-human-nature/oclc/71223447?page=citation.

Levy, B. (1996). Improving memory in old age through implicit self-stereotyping. *Journal of Personality and Social Psychology*, 71, 1092-1107.

Liben, L. S., Bigler, R. S., & Krogh, H. R. (2002). Language at work: Children's gendered interpretations of occupational titles. *Child Development, 73*(3), 810-828.

Lippmann, W. (1997). *Public opinion*. New York, NY: Free Press. (Original work published 1922).

Ludwig, M. (2010). General affine surface areas. *Advances in Mathematics, 224(*6), 2346-2360.

Madon, S., Guyll, M., & Spoth, R. L. (2004). The Self-fulfilling Prophecy as an Intrafamily Dynamic. *Journal of Family Psychology, 18*(3), 459-469.

Madon, S., Guyll, M., Aboufadel, K., Montiel, E., Smith, A., Palumbo, P., & Jussim, L. (2001). Ethnic and national stereotypes: The Princeton trilogy revisited and revised. *Personality and Social Psychology Bulletin, 27,* 996-1010.

Madureira, A. F. A. (2007). Commentary: The self-control ethos as a mechanism of social exclusion in Western societies. *Culture & Psychology, 13,* 419-430.

Mahmud, M. (2015). Language and gender in English language teaching. *TEFLIN Journal, 21*(2), 172-185.

Major, B., Gramzow, R., McCoy, S., Levin, S., Schmader, T., & Sidanius, J. (2002). Attributions to discrimination: The role of group status and legitimizing ideology. *Journal of Personality and Social Psychology, 82*, 269–282.

Major, B., Quinton, W. J., & Schmader, T. (2003). Attributions to discrimination and self-esteem: Impact of group identification and situational ambiguity. *Journal of Experimental Social Psychology,* 39, 220–231.

Markus, H., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*(2), 224-253.

Marsh, H. W, & Craven, R. G. (2006). Reciprocal effects of self- concept and performance a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science, 1*(2), 133-163.

Marsh, H. W., & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. Phye (Ed.), *Handbook of classroom assessment: Learning, achievement, and adjustment* (pp. 131-198). Orlando, FL: Academic Press.

Marsh, H. W., & Martin, A. J. (2011). Academic self-concept and academic achievement. *British Journal of Educational Psychology, 81*, 59-77.

Marsh, H.W., & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. Phye (Ed.), *Handbook of classroom assessment:*

Learning, achievement, and adjustment (pp. 131-198). Orlando, FL: Academic Press.

Marsh, H.W., & Craven, R.G. (2006). Reciprocal effects of self- concept and performance a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science*, Vol. 1, No. 2 (Jun., 2006), pp. 133-163.

Martin, C. L., & Fabes, R. A. (2001). The stability and consequences of young children's same-sex peer interactions. *Developmental Psychology, 37*(3), 431.

Martin, C. L., Ruble, D. N., & Szkrybalo, J. (2002). Cognitive theories of early gender development. *Psychological Bulletin, 128*(6), 903.

Martin, G. L., & Osborne, J. G. (1992). *Psychology, adjustment, and everyday living* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Martin, G. N., Carlson, N. R., & Buskist, W. (2007). *Psychology* (3rd ed.). New York, NY: Allyn & Bacon.

Marx, D. M., & Stapel, D. A. (2006). Distinguishing stereotype threat from priming effects: On the role of the social self and threat-based concerns. *Journal of Personality and Social Psychology, 91*(2), 243.

Marx, D. M., Stapel, D. A., & Muller, D. (2005). We can do it: the interplay of construal orientation and social comparisons under threat. *Journal of Personality and Social Psychology, 88*(3), 432.

McGarty, C., Turner, J. C., Oakes, P. J., & Haslam, S. A. (1993). The creation of uncertainty in the influence process: The roles of stimulus information and disagreement with similar others. *European Journal of Social Psychology, 23*, 17–38. doi:10.1002/ejsp.2420230103

McGraw, C. L. (2008). Ethnic and minority parenting. *Handbook of Parenting, 4,* 1-20.

McInerney, D. M., Cheng, R. W. Y., Mok, M. M. C., & Lam, A. K. H. (2012). Academic self-concept and learning strategies: Direction of effect on student academic achievement. *Journal of Advanced Academics, 23*(3), 249-269.

McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child development, 74*(2), 498-515.

McLead, J. (2008). *Aspiration and attainment in a low-income neighborhood*. Boulder, CO: Westview.

McLeod, S. A. (2007). *Carl Rogers – Simply Psychology*. Retrieved from: http://www.simplypsychology.org/carl-rogers.html.

McLeod, S. A. (2014). *Carl Rogers*. Retrieved from http://www.simplypsychology.org/carlrogers.html

Mendoza-Denton, R., Downey, G., Purdie, V. J., Davis, A., & Pietzak, J. (2002). Sensitivity to status based rejection: Implications for African American students' college experience. *Journal of Personality and Social Psychology*, *83*, 896–918.

Merton, R. K. (1948). The self-fulfilling prophecy. *Antioch Review*, 8, 193-210.

Merton, R.K. (1968). *Social theory and social structure*. New York: The free Press.

Mervis, C. B., & Rosch, E. (1981). Categorization of natural objects. *Annual Review of Psychology, 32*(1), 89-115.

Miller, C. T., & Kaiser, C. R. (2001). A theoretical perspective on coping with stigma. *Journal of Social Issues, 57*, 73–92.

Mullen, B., & Johnson, C. (1990). Distinctiveness-based illusory correlations and stereotyping: A meta-analytic integration. *British Journal of Social Psychology*, *29*(1), 11-28.

Mullis, I. V., Martin, M. O., Foy, P., & Arora, A. (2012). *TIMSS 2011 international results in mathematics. International Association for the Evaluation of Educational Achievement*. Herengracht 487, Amsterdam, 1017 BT, The Netherlands.

Mullis, I. V., Martin, M. O., Foy, P., & Drucker, K. T. (2012). *PIRLS 2011 International Results in Reading. International Association for the Evaluation of Educational Achievement.* Herengracht 487, Amsterdam, 1017 BT, the Netherlands.

Murray, E. L. (2001).*The quest for personality integration: Reimagining our lives*. Pittsburgh, PA: Simon Silverman Phenomenology Centre.

Musa, A. K., Dauda, B., & Umar, M. A. (2016). Gender Differences in Achievement Goals and Performances in English Language and Mathematics of Senior Secondary Schools Students in Borno State, Nigeria. *Journal of Education and Practice*, *7*(27), 165-175.

Nagel, J. (1994). Constructing ethnicity: Creating and recreating ethnic identity and culture. *Social Problems, 41*(1), 152-176.

Nitko, A. J. (2001). *Educational assessment of students (3rd ed)*. New Jersey: Prentice-Hall Inc.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Oxford, England: Blackwell.

Oakley, A. (2015). *Sex, Gender and Society*. Ashgate Publishing, Ltd.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Cambridge, MA: Blackwell Publishers.

Okeke, N. A., Howard, L., Kurtz-Costes, B., & Rowley, S. J. (2009). *Race stereotypes and self-perceptions in African American youth: The moderating role of race centrality.*

Operario, D., & Fiske, S. T. (2001). Ethnic identity moderates perceptions of prejudice: Judgments of personal versus group discrimination and subtle versus blatant bias. *Personality and Social Psychology Bulletin*, *27*, 550–561.

Oppong, C. A. (2013). Gender differences in students' performance in history at senior high schools in Cape Coast. *Journal of Arts and Humanitie.* *2*(1), 34-39.

Organisation for Economic Co-operation and Development (OECD). (2016). *PISA 2015 results in focus*. Retrieved from https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf.

Osborne, J. W. (1997). Race and academic disidentification. *Journal of Educational Psychology, 89*(4), 728.

Osland J. & Bird A. (2000). Beyond Sophisticated Stereotyping: Cultural Sense making in Context. *Academy of Management Executive*, *14*(1), 65-77.

Perkins, T. E. (l979). Rethinking stereotypes. In M. Barrett, P. Corrigan, A. Kuhn, & J. Wolff, (Eds), *Ideology and Cultural Production*, London: Croom Helm, 135-59.

Peshkin, A. (1991). *The color of strangers, the color of friends*. Chicago. University of Chicago Press.

Phetla, G. (2007). Gender scripts and social interactions of young people in Burgersfort. Retrieved from www.arsrc.org/downloads/sldf/Godfrey Gender_Scripts_SLDFPFP.05.pdf.

Phinney, J. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7*(2), 156-176.

Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence, 9*(1-2), 34-49.

Porter, R. C. (1999). Gender Differences in Mathematics Performance. Retrieved from https://files.eric.ed.gov/fulltext/ED429818.pdf

Powlishta, K. K. (2004). *Gender as a social category: Intergroup processes and gender-role development*. In The development of the social self (pp. 117-148). Psychology Press.

Pugh, D. (1989) *Discuss how self-fulfilling prophecies operate, how they are related to stereotypes; prejudice and discrimination and how their most invidious consequences can be prevented*. (Unpublished). Retrieved from http://www.donpugh.com/Psych%20Interests /Essays/Discuss%20how%20self-fulfilling%20prophecies.pdf

Ramirez-Berg, C. (2002). *Categorizing the other: Stereotypes and Stereotyping*. University of Texas. University of Texas Press. Retrieved from https://www.asu.edu/courses/lia294a/total-readings /RamirezBerg--Categorizing.htm

Robinson, R. J., Keltner, D., Ward, A., & Ross, L. (1995). Actual versus assumed differences in construal:" Naive realism" in intergroup perception and conflict. *Journal of Personality and Social Psychology*, *68*(3), 404.

Rogers, C. (2004). *On becoming a person*. London: Constable and Robinson Ltd.

Rogers, C. R. (1951). *Client-centered therapy*. Boston: Houghton Mifflin.

Rogers, C. R. (1954). *Pscyho-therapy and personality change*. Chicago: University of Chicago Press.

Rogers, C. R. (1959). A theory of therapy, personality, and interpersonal relationships, as developed in the client-centered framework. In S. Koch (Ed.), *Psychology: A study of a science*: Vol. 3 (pp. 184–256). New York: McGraw-Hill.

Rogers, C. R. (1961). *On becoming a person: A therapist's view of psychotherapy*. Boston: Houghton-Mifflin.

Rogers, C. R. (1980). *A way of being*. Boston: Houghton Mifflin.

Rogers, C. R. (1986). Rogers, Kohut, and Erikson. *Person-Centered Review*, *1*, 125–140.

Rokeach, M. (1968). Beliefs, attitudes and values. New York: Jossey-Bass.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*, by Robert Rosenthal, Lenore Jacobson. Rinehart and Winston.

Rowley, S. J., Kurtz-Costes, B., Mistry, R., & Feagans, L. (2007). Social status as a predictor of race and gender stereotypes in Black and White youth. *Social Development, 16,* 150-168.

Rutland, A. (1999). The development of national prejudice, in-group favouritism and self-stereotypes in British children. *British Journal of Social Psychology, 38*(1), 55-70.

Ryan, K. E., & Ryan, A. M. (2005). Psychological processes underlying stereotype threat and standardized math test performance. *Educational Psychologist, 40*(1), 53-63.

Santrock, J. (2009). *Adolescence* (13th ed.) Columbus, OH: McGraw-Hill.

Schmade, T. (2002). Gender identification moderates stereotype threat effects on women's math performance. *Journal of Experimental School Psychology, 38*, 194-201.

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology, 85,* 440–452.

Schmader, T., Johns, M., & Barquissau, M. (2004). The costs of accepting gender differences: The role of stereotype endorsement in women's experience in the math domain. *Sex Roles, 50*, 835-850.

Schmader, T., Johns, M., & Barquissau, M. (2004). The costs of accepting gender differences: The role of stereotype endorsement in women's experience in the math domain. *Sex Roles, 50*(11-12), 835-850.

Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat effects on performance. *Psychological Review, 115*(2), 336.

Schmitt, M. T., & Branscombe, N. R. (2002). The meaning and consequences of perceived discrimination in disadvantaged and privileged social

groups. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 12, pp. 167–199). Chichester: Wiley.

Scottham, K. M., Cooke, D. Y., Sellers, R. M., & Ford, K. (2010). Integrating process with content in understanding African American racial identity development. *Self and Identity, 9*(1), 19-40.

Seaton, M., Marsh, H. W., & Craven, R. G. (2010). Big-fish-little-pond effect: Generalizability and moderation—Two sides of the same coin. *American Educational Research Journal, 47*(2), 390-433.

Seidman, E., Allen, L., Aber, J. L., Mitchell, C., & Feinman, J. (1994). The impact of school transitions in early adolescence on the self-system and perceived social context of poor urban youth. *Child Development, 65*(2), 507-522.

Sellers, R. M., Chavous, T. M., & Cooke, D. Y. (1998). Racial ideology and racial centrality as predictors of African American college students' academic performance. *Journal of Black Psychology, 24*(1), 8-27.

Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and social psychology review, 2*(1), 18-39.

Serbin, L. A., Powlishta, K. K., Gulko, J., Martin, C. L., & Lockheed, M. E. (1993). The development of sex typing in middle childhood. Monographs of the society for research in child development. Retrieved from http://people.uleth.ca/~fangfang.li /lietal2016jphon.pdf.

Shapiro, J. R., & Williams, A. M. (2012). The role of stereotype threats in undermining girls' and women's performance and interest in STEM fields. *Sex Roles, 66(*3-4), 175-183.

Sharma, N., & Sharma, K. (2015). Self-fulfilling prophecy: A literature review. *International Journal of Interdisciplinary and Multidisciplinary Studies, 2*(3), 41-42.

Shih, M., Pittinsky, T., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science, 10*(1), 80-83.

Simmons, R. G., Rosenberg, F., & Rosenberg, M. (1973). Disturbance in the self-image at adolescence. *American Sociological Review*, 553-568.

Smedley, A. (1998). Race and Construction of Human Identity. Blackwell Publishing for *American Anthropological Association*. 100(3) 690-702.

Smetackova, I. (2015). Gender stereotypes, performance and identification with math. *Procedia-Social and Behavioral Sciences, 190*, 211-219.

Smith, A. D. (1991). *National identity*. Nevada. University of Nevada Press.

Spangenberg, E. R., & Sprott, D. E. (2006). Self-monitoring and susceptibility to the influence of self-prophecy. *Journal of Consumer Research, 32*(4), 550-556.

Spencer, S. J., Steele, C. M., & Quinn, D. M. (1999). Stereotype threat and women's math performance. *Journal of Experimental Social Psychology*, 35, 4-28.

Sprott, D. E., Spangenberg, E. R., & Fisher, R. (2003). The Importance of Normative Beliefs to the Self-Prophecy Effect. *Journal of Applied Psychology*, *88*(3), 423-431.

Louis, G. R., & Liem, J. H. (2005). Ego identity, ethnic identity, and the psychosocial well-being of ethnic minority and majority college students. *Identity*, *5*(3), 227-246.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American psychologist*, *52*(6), 613.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, *69*, 797- 811

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 379–440). New York: Academic Press.

Steele, J. R., & Ambady, N. (2006). "Math is hard!" The effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology*, *42*(4), 428-436.

Stroessner, S. J., & Mackie, D. M. (1993). *Affect and perceived group variability: Implications for stereotyping and prejudice. In Affect, Cognition and Stereotyping* (pp. 63-86).

Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., et al. (2007). Racial Microagressions in Everyday Life: Implications for Clinical Practice. *American Psychologist*, *62*(4), 271-286.

Sumsion, J., Roberts, S., & Lee-Thomas, K. (2005). Teacher understandings of and commitment to gender equity in the early childhood setting. *Australian Journal of Early Childhood*, *30(*1), 21.

Swann, W. B., Jetten, J. G. A., Whitehouse, H., & Bastian, B. (2012). When group membership gets personal: A theory of identity fusion. *Psychological Review, 119* (3), 441–456.

Tajfel, H. (1981). *Human groups and social categories.* New York, NY: Cambridge University Press.

Tajfel, H. (1984). Intergroup relations, social myths and social justice in social psychology. *The Social Dimension, 2*, 695-715.

Tajfel, H., & Turner, J. (1986). *The social identity theory of intergroup behaviour:* Worchel S. i Austin WG (ur.) Psychology of intergroup relations. Chicago: Nelson Hall.

Tan, J. B. Y., & Yates, S. M. (2007). A Rasch analysis of the academic self-concept questionnaire. *International Education Journal, 8*(2), 470-484.

Tenenbaum, H. R., & Leaper, C. (2002). Are parents' gender schemas related to their children's gender-related cognitions? A meta-analysis. *Developmental Psychology, 38*(4), 615.

Thames, A. D., Hinkin, C. H., Byrd, D. A., Bilder, R. M., Duff, K. J., Mindt, M. R., & Streiff, V. (2013). Effects of stereotype threat, perceived discrimination, and examiner race on neuropsychological performance: simple as black and white? *Journal of the International Neuropsychological Society*, *19*(5), 583-593.

Thomas, W. I. (1928). *The child in America: Behaviour problems and programs*. New York: Alfred A. Knopf. 1928. p. 572.

Tiedemann, J. (2000). Parents' gender stereotypes and teacher's beliefs as predictors of children's self-concept of their mathematical ability in elementary school. *Journal of Educational Psychology, 92*, 144-157.

Turner, J. C. (1987). *A self-categorization theory*. In J. C. Turner, M. A. Hogg, P. J. Oakes, S. D. Reicher, & M.S. Wetherell (Eds). *Rediscovering the social group: A self-categorization theory* (pp. 42–67). Oxford: Blackwell.

Turner, J. C. (1991). *Social influence*. Buckingham, UK: Open University Press & Pacific Grove, CA: Brooks/Cole.

Turner, J. C. (1999). Some current themes in research on social identity and self-categorization theories. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 6-34). Oxford: Blackwell.

Turner, J. C. (2005). Explaining the nature of power: A three process theory. *European Journal of Social Psychology*, *35*, 1-22.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: England: Blackwell.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.

Turner, J. C., Penelope J., Oakes, S., Haslam, A., & McGarty, C. (1992). *Personal and social identity: self and social context*. Retrieved from http://psychology.anu.edu.au/files/Abstracts-Presentations-1-Personal-and-Social-Identity-Self-and-Social-Context-Princeton-1992.pdf

Turner, J.C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations* (pp. 15-40). Cambridge, UK: Cambridge University Press.

Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality and Social Psychology, 92*, 82–96.

Watzlawick, P. (1984). *Self-fulfilling prophecies. In the production of reality*: Essays and readings on social interaction by O'Brien, J., 5th Edition, California: Pine Forge Press.

Weiten, W., Dunn, D. S., & Hammer, E. Y. (2014). *Psychology Applied to Modern Life: Adjustments in the 21st Century*. Belmont, CA: Wadsworth.

Willard, J., Madon, S., Guyll, M., Spoth, R., & Jussim, L. (2008). Self-efficacy as a moderator of negative and positive self-fulfilling prophecy effects: mothers' beliefs and children's alcohol use. *European Journal of Social Psychology, 38*(3), 499-520.

Yahaya, A., & Ramli, J. (2009). The relationship between self-concept and communication skills towards academic achievement among secondary school students in Johor Bahru. *International Journal of Psychological Studies, 1*(2), 25-34.

APPENDIX A

A QUESTIONNAIRE ON THE MODERATING ROLE OF SELF-CONCEPT ON GENDER AND ETHNIC STEREOTYPES AND THE ACADEMIC PERFORMANCE OF SENIOR SECONDARY STUDENTS IN MATHEMATICS AND ENGLISH

Dear student, this questionnaire is to collect information on how students' self-concept moderates the effects of gender and ethnic stereotype, on the academic performance of students in Mathematics and English language. Any information you provide would be kept confidential and would be used for research purposes only. The questions below seek to solicit your opinion on students' self-concept and stereotype, and will therefore not form part of your school assessment. You are however encouraged to give your candid opinion. Thank you.

DEMOGRAPHIC DATA

Gender Female [ ] Male [ ]

Please indicate your form in the space provided eg. Form 2

Form ……..

Please provide your age in the space provided eg. 15 years

Age ……..

Please select your ethnic group by ticking the box beside the ethnic group you belong to

Ethnic groups: Akan [ ] Ewe [ ] Ga-Adangbe [ ] Mole-Dagbane [ ] Guan [ ] Others (please specify)…….

Please write the Course you're offering in the space provided below eg;

General Arts Course (please specify)……

SECTION A

SELF-CONCEPT INVENTORY

Please select [√] the most appropriate response to the following statements.

	STATEMENT	Strongly disagree	Disagree	Agree	Strongly agree
1	I can follow lessons in class easily.				
2	I pay attention to the teachers during lessons.				
3	I day-dream a lot in class.				
4	If I work hard, I think I can make it to any tertiary institution.				
5	I am able to help my classmates in their schoolwork.				
6	I am among the top students in my class.				
7	I do not give up easily when I am faced with a difficult question in my schoolwork.				
8	I consider myself a brilliant student.				
9	I can easily analyze situations and make right judgments.				
10	I make good grades; this makes				

	me feel confident about myself.				
11	Most of my classmates think I am brilliant.				
12	My performance in class affects the way I feel about myself.				
13	My classmates often want to do class work with me.				
14	I prefer to be on my own rather than with my friends.				
15	I feel offended when people make negative remarks about my tribe.				
16	I read texts several times to find main ideas.				
17	I am a fast learner and can understand instructions easily.				
18	I have a lot of things to be proud of.				
19	I am willing to do my best to pass all the subjects.				
20	Most of my classmates are smarter than I am.				
21	I always perform poorly in tests.				
22	It is difficult for me to make friends.				

23	I study hard for my tests.				
24	I am able to do better than my friends in most subjects.				
25	I think I'm a failure.				
26	My friends and classmates can look up to me as a model worth emulating.				
27	I can adjust to different people and situations.				
28	I am intelligent.				
29	I often feel like quitting school.				
30	I think it is easy to study				

APPENDIX B

SECTION B

STEREOTYPE INVENTORY

Please select [√] the most appropriate response to the following statements.

	STATEMENT	Strongly disagree	Disagree	Agree	Strongly agree
1	Female students have to work harder in mathematics to do as well as male students.				
2	English language is more difficult for boys than girls				
3	Girls are perceived to be better in English than boys.				
4	I would consider mathematics as an elective.				
5	Teachers expect boys to get better grades than girls in mathematics.				
6	Girls are usually more eloquent than boys.				
7	I have heard that male students perform better on mathematics tests than female students.				
8	Mathematics is more interesting than English language.				

9	Girls perform better in literature and other reading-related subjects than boys.				
10	I don't think there are any differences in the performance of boys and girls in mathematics.				
11	Mathematics is a difficult subject for me.				
12	I have always hated mathematics.				
13	Mathematics is really challenging for me.				
14	A lot of girls prefer English language to mathematics.				
15	I would prefer to take a test in English rather than mathematics.				
16	I believe that people from some particular ethnic groups are more intelligent than others.				
17	I sometimes believe or have supported some derogatory (unpleasant) jokes about my own ethnic group.				

18	I am really proud of my ethnic group regardless of what people think.				
19	When choosing a place to live in future I would prefer a place with lots of people from the same cultural/ethnic group as myself.				
20	I hold people of my ethnic group in a higher standard than people from other ethnic groups.				
21	I am often embarrassed to respond to respond to another person of my tribe in my local language.				
22	I feel my classmates avoid me because of my tribe.				
23	I don't like to participate in cultural events in school for fear of people making fun about my ethnic group.				
24	I usually choose my friends based on the ethnic group they belong to.				

25	I will strongly correct a wrong impression about people of my tribe.				
26	I sometimes feel ashamed about my tribe.				
27	I behave differently when I am with people from different ethnic groups.				
28	I think Ghana would be much fun if everyone was from my tribe.				
29	I have much confidence in myself and people of my tribe.				
30	When choosing the type of music to listen to, I prefer music by people of my cultural or ethnic group.				

APPENDIX C

SECTION C

Answer all questions on the question sheet provided.

Each question is followed by four options lettered **A** *to* **D**. *Find the correct option for* **each** *question by* **CIRCLING** *the letter attached to the option you have chosen.*

Time allowed: **36 minutes**

Give only one answer to **each** *question. An example is given below.*

The ages, in years, of four boys, are 10, 12, 14 and 18. What is the average age of the boys?

A. 12 years

B. 12 ½ years

C. 13 years

D. 13 ½ years

The correct answer is 13 ½ years, which is lettered D, and therefore answer letter D would be circled.

Think carefully before you choose your answer. Do all rough work on this sheet.

1. Three people shared GH¢ 540,000.00 in the ratio 2:3:4. Find the **least** amount received.

    A. GH¢ 60,000.00

    B. GH¢120,000.00

    C. GH¢180,000.00

    D. GH¢ 240,000.00

2. Kwame borrowed GH¢ 300.00. He repaid the loan with six equal installments of GH¢ 55.00. How much interest, did he pay?

   A. GH¢ 3.00

   B. GH¢ 30.00

   C. GH¢ 33.00

   D. GH¢ 330.00

3. If 23 + 14 = ***a*** (mod 5), find ***a.***

   A. 0

   B. 1

   C. 2

   D. 3

4. What is the value of ***m*** if $4 \times 3^{m} = 324$

   A. 3

   B. 4

   C. 27

   D. 81

5. If $\log_4 16 = \log_x 36$, find x.

   A. 3

   B. 4

   C. 6

   D. 8

6. Simplify $8\sqrt{20} - 12\sqrt{5} + 2\sqrt{45}$

   A. $8\sqrt{5}$

   B. $10\sqrt{5}$

   C. $16\sqrt{5}$

   D. $26\sqrt{5}$

7. A man makes a profit of 15% by disposing of an article at GH¢ 1725. What is his actual profit?

   A. GH¢ 225.00

   B. GH¢ 258.75

   C. GH¢ 1466.25

   D. GH¢ 1500.00

8. After spending $\frac{2}{5}$ of her money, on transportation and $\frac{1}{8}$ on cosmetics, a woman was left with GH¢ 6.50. How much money did she have originally?

   A. GH¢ 18.00

   B. GH¢ 15.00

   C. GH¢ 11.50

   D. GH¢ 9.30

9. The marks of eight students are: 10,4,5,3,14,13,16 and 17. Find the range.

   A. 16

   B. 14

   C. 13

   D. 11

10. Given that y varies inversely as x and $y = 6$ when $x = 3$, find the value y when $x = 9$.

    A. 4

    B. 3

    C. 2

    D. 1

11. If y varies directly as $(2x + 3)$ and $x = 5$ when $y = 52$, what is the value of x, when $y = 36$?

    A. 4

    B. 3

    C. 2

    D. 1

12. The ratio of the interior angle of a rectangle polygon is 1:11. How many sides, has the polygon?

    A. 30

    B. 24

    C. 18

    D. 12

13. A ship sails from a port O on a bearing of 315^0 to a point of P. If P is 8 km west of O, calculate $|OP|$.

    A. 5.66 km

    B. 10.00 km

    C. 8.00 km

    D. 11.31 km

14. The distance, d, through which a stone falls from rest, varies directly as the square of the time, t, taken. If the stone falls 45cm in 3 seconds, how far will it fall in 6 seconds?

    A. 90 cm

    B. 135 cm

    C. 180 cm

    D. 225 cm

15. On a map, 1 cm represents 5 km. Find, the area on the map that represents 100 km^2.

    A. 2 cm^2

    B. 4 cm^2

    C. 8 cm^2

    D. 16 cm^2

16. Given that $2x + y = 7$ and $3x - 2y = 3$, by how much is $7x$ greater than 10?

    A. 1

    B. 3

    C. 7

    D. 17

17. ***M*** is the mid-point of ***JK***. If the coordinates of *J* is (-5, 4) and ***M*** is (-2, 1), find the coordinates of ***K.***

    A. (-2,1)

    B. (-1,-2)

    C. (-1,2)

    D. (1,-2)

18. Find the value of *x* in the simultaneous equation: $2x + y = 4$; $x - 2y = 2$.

    A. 6

    B. 4

    C. 3

    D. 2

19. Which of the following is the truth set of the equation $3x + 1 = 4 \pmod 6$?

    A. {0,1,4}

    B. {1,3,4}

    C. {1,3,5}

    D. {1,4,5}

20. The market price of a bag was GH¢ 44,980.00. John received 15% discount for cash purchase of the bag. How much did he pay for the bag?

    A. GH¢ 2,800.00

    B. GH¢ 28,000.00

    C. GH¢ 53,200.00

    D. GH¢ 38,233.00

APPENDIX D

SECTION D

English Language Test

Instructions; In the following sentences, there is one word **underlined** *and one gap. From the list of words lettered* **A** *to* **D,** *choose the word that is* **most nearly opposite** *in meaning to the underlined word and that will, at the same time correctly fill the gap in the sentence.*

Time allowed: **15 minutes**

1. Although Jane is stingy, her husband is ……..

   A. careless

   B. generous

   C. supportive

   D. wicked

2. Though uncouth in her school days, Mansa now appears quite ……..

   A. enlightened

   B. literate

   C. refined

   D. reformed

3. The lawyer's objections were overruled by the lower court, but …….. by the higher court.

   A. accepted

   B. considered

   C. examined

   D. upheld

4. The workers expected management to be ……., rather than indifferent to their welfare.

   A. careful

   B. different from

   C. interested in

   D. opposed to

*From the words lettered **A** to **D,** choose the word that **best completes** each of the following sentences.*

5. Because the new venture was …….., many businessmen and women went into it.

   A. lucrative

   B. manageable

   C. rich

   D. satisfying

6. The angry mob instantly …… the armed robbery that was caught.

   A. assassinated

   B. confused

   C. lynched

   D. squeezed

7. The police have …… the mystery behind Ama's sudden disappearance.

   A. discovered

   B. revealed

   C. understood

   D. unraveled

8. After much investigation, the suspect was …… from the charges.

    A. acquitted

    B. exempted

    C. exonerated

    D. liberated

*Choose from the alternative lettered **A** to **D,** the word which is **nearest in meaning** to the underlined word or expression in each sentence.*

9. Work done by <u>indolent</u> people is not always thorough.

    A. contemporary

    B. lazy

    C. strange

    D. unfriend

10. Do not make derogatory remarks; they spoil mutual goodwill.

    A. crude

    B. cruel

    C. harsh

    D. negative

Passage

In the following passage, the numbered gaps indicate missing words. Against **each** *number in the list below the passage,* **four** *choices are offered in columns lettered* **A-D.** *For* **each** *numbered gap, choose from the options provided for that number, the word that is* **most suitable** *to fill the gap.*

The science of medicine has brought many benefits to man, the most important of which is the increase in ***-1-.*** This highly desirable feat has resulted from the fact that certain diseases which defied all ***-2-*** in the past have been brought under ***-3-***. Sensitive clinical instruments make accurate ***-4-*** possible. Powerful substances of ***-5-*** value have been manufactured which bring relief to the sick and the suffering.

When one is sick, the best place to seek advice is a health center where medical ***-6-*** try to restore the body to good health. A good number of patients are ***-7-*** for a period of medication and observation. When their health condition improves they are ***-8-*** from the hospital. Really, some people respond to ***-9-*** much more quickly than others. Those who are pronounced well are advised to report regularly for ***-10-.*** This is sometimes cumbersome for those who live far away from health centers. It is the hope that the time will come when health care facilities will be accessible to all.

	A	**B**	**C**	**D**
1	life expectancy	life cycle	life time	life time
2	Solutions	measures	remedy	cure
3	Care	Control	authority	suppression
4	Diagnoses	assessment	discovery	investigation
5	Herbal	Potent	medical	medicinal
6	Dispensers	personnel	operators	attenders
7	Restrained	Kept	admitted	delayed
8	Relived	dismissed	discharged	released
9	Medicine	treatment	care	prescription
10	Investigation	research	review	examination

APPENDIX E

Reliability Statistics of Self-Concept Inventory

Cronbach's Alpha	N of Items
0.84	21

APPENDIX E-2

Reliability Statistics of Stereotype Inventory

Cronbach's Alpha	N of Items
0.71	30

APPENDIX E-3

Reliability Statistics of Mathematics Test

Cronbach's Alpha	N of Items
0.80	20

APPENDIX E-4

Reliability Statistics of English Test

Cronbach's Alpha	N of Items
0.73	10

APPENDIX F

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/UCC-edu/vol.iv-34
Your Ref: .....
Date: Jan 21 2018

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

The bearer, Lady Barbara Gaisie, Reg. No. ED/RPE/16/0009 is an M.Phil. / Ph.D. student in the Department of Education and Psychology in the College of Education Studies, University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Moderating role of students' academic self-concept on gender and ethnic stereotypes and the academic performance of senior high school students

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde.
(Secretary, CES-ERB)