Age and Gender Differences in Achievement Motivation: A Ghanaian Case Study

Solomon Faakye[1]

Legal Section, University of Cape Coast

Abstract - This work sought to investigate achievement motivation among senior high school students at the University Practice Senior High School, Cape Coast. A quantitative research design was employed. In all a sample of 293 students were selected for the study based on a systematic random sampling technique. A questionnaire with reliability coefficient of 0.825 was used for the study.

Three hypotheses were tested to know whether differences existed between younger male adolescents and older male adolescents; younger female adolescents and older female adolescents; male, and females adolescents in their achievement motivation. The study concluded that no significant differences existed regarding the three hypotheses. In other words, the null hypotheses in all the three cases were confirmed. The study thus, recommended among others that achievement motivation training should be taken seriously for both genders in order to maintain the current trend.

Index Terms – Achievement, Motivation, Gender, Ghana, Education.

I. INTRODUCTION

The issues of motivation of students in education and the impact on academic performance are considered as important aspect of effective learning. A learner's sustained commitment to learning is an important measure of his or her success. It is in this light that Hall (1989) suggests that there is a need to motivate pupils so as to arouse and sustain their interest in learning. Nakata (2006) on a study of the importance of motivational factors for English language learning observes that motivation is largely responsible for determining human behavior and thus those who are really motivated to learn a foreign language will be able to become proficient to a certain degree. Self-determination theorist identifies two broad categories of motivation: namely intrinsic and extrinsic motivation (Deo, 1985). Intrinsic motivation as an activity or behavior engaged in voluntarily for the inherent pleasure and satisfaction derived from participation. In contrast, extrinsic motivation refers to activities engaged in to receive a reward or to avoid being criticized (Baker, 2004, p. 189). Intrinsic and Extrinsic Motivation together provides the basis for understanding achievement motivation which is considered a key determinant of educational outcomes (Lemos, 2014).

Achievement motivation is a theoretical model intended "to explain how the motive to achieve and the motive to avoid failure influence behavior in a situation where performance is evaluated against some standard of excellence" (Atkinson, 1957: 371).

Murray (1938) used the term first and she associated it with a range of actions including intense, prolonged and repeated efforts to accomplish something difficult; to work with singleness of purpose towards a high and distant goal; to have the determination to win; to try to do everything well; to be stimulated to excel by the presence of others; to exert will power; to overcome boredom and fatigue (Murray, 1938). More recent expositions on achievement motivation have defined achievement motivation as reaching success and achieving all of aspirations in life (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997).

In this light achievement motivation is viewed as the attitude to achieve rather than the achievements themselves. Individuals will satisfy their needs through different means, and are driven to succeed for varying reasons both internal and external. Factors that may explain

---

[1] Adjunct Faculty Member College of Humanities and Legal Studies University of Cape Coast.
Email: sfaakye@ucc.edu.gh/ solomonfaakye@gmail.com

Individuals achievement motivation are broadly classified by theorist into achievement motive and achievement goals. Achievement motives include the need for achievement and the fear of failure. These are the more predominant motives that direct our behavior toward positive and negative outcomes. Achievement goals are viewed as more solid cognitive representations pointing individuals toward a specific end. Achievement motives can be seen as predictors of achievement circumstances rather than providing a direct basis for achievement. Thus, achievement motives are said to have an indirect or distal influence, and achievement goals are said to have a direct or proximal influence on achievement-relevant outcomes (Elliot & McGregor, 1999). Examples of achievement goals include: a performance-approach goal, a performance-avoidance goal, and a mastery goal. A performance-approach goal is focused on attaining competence relative to others, a performance-avoidance goal is focused on avoiding incompetence relative to others, and a mastery goal is focused on the development of competence itself and of task mastery (Ibid).

Achievement motivation is an important issue for psychologists and individuals in the field of education because it has been correlated with academic self-concept (Marsh & Hau, 2003), academic self-efficacy (Bong & Skaalvik, 2003), learning and performance goals (Hsieh et.al, 2008), developmental level (Guay, Marsh, & Boivin, 2003), and gender differences (Mandel & Marcus, 1988). Research on achievement motivation in the schools suggests a relationship with moral reasoning, behavioral problems, intrinsic motivation, apathy, and teacher burn-out rates (Timms, et.al 2007; Walsh, 2006).

The focus of the current research project is on differences in achievement motivation based on gender and age among younger and older adolescents within the senior high school as well as the dominant factors that affect. Using the University Practice Senior High School; a medium size high achieving urban school as the setting, the work attempts to examine how male and female as well as old and young adolescents differ on achievement motivation broadly viewed. Studies on whether or not differences exist among young people in achievement motivation have been generally inconclusive. This work seeks to explore the question within the Ghanaian context in a bid to add further insight to this area of research. The work thus revolves around three main objectives namely:

a)   To investigate the differences in achievement motivation among younger and older adolescents males in the Senior High School
b)   To investigate the differences in achievement motivation among older and younger adolescent females in the senior high school
c)   To investigate the differences in achievement and motivation among males and females in the senior high schools

II. STATEMENT OF THE PROBLEM

Research shows that, low test scores, low grades, high school drop-out rates, poor attendance, and low motivation usually top the list of the reasons why students fail in high school (Noguera, 2003). High achievement motivation among high school students in general is linked to reduced school dropout rates and increased levels of academic success (Alspaugh, 1998; Caldwell, 2007; Chmelynski, 2004; Haycock, 2001). Everyone is motivated by something (Eccles, Wigfield, & Schiefele, 1998; Hootstein, 1998). The question remains as to whether gender and age accounts for high or low achievement motivation among adolescent students in the Senior High Schools.

Past research has indicated that males and females are likely to score differently on various aspects of academic motivation. These gender differences are apparent within intrinsic (McGeown et al., 2012) and extrinsic (Rusillo et al., 2004) attributes, learning strategies (Massachi, 2000), and hours devoted to studying (Trautwein & Ludtke, 2007). Autonomous motivation was also found to mediate the relationship between self-concept and achievement in a sample of 925 high school students (Guay et al., 2010). However, much of this research is domain specific as it measures motivation towards a particular task area (e.g. motivation towards learning a foreign language). This, in turn, limits its usefulness in explaining students' holistic motivation, i.e. regardless of subject or task. It is also imperative to note that much of the previous research has been conducted among students residing in educational contexts that precede senior high school education and in the developed countries or transitional economies.

There is therefore a void in the literature that focuses on the Achievement Motivation characteristics of senior high school students in Ghana. If achievement motivation is linked to academic persistence and reduced dropout rates and senior high school is a pivotal transition year, then we ought to explore these phenomena and attempt to understand the key differences that exist across gender and age in achievement motivation. The present study uses a descriptive quantitative method to describe differences in achievement motivation among senior high school students in the University Practice Senior High School (UPSHS), Cape Coast with specific reference to age and gender as independent variables.

III. RESEARCH HYPOTHESIS

Ho1. There are no significant differences in the levels of Achievement Motivation between younger male and older male Adolescents in the Senior High School?
Ho2 There are no significant differences in the levels of Achievement Motivation between younger and older adolescents?
Ho3 There are no significant difference in the levels of achievement motivation between male and female adolescents

IV. RELATED LITERATURE

A. *The Concept of Achievement Motivation*

Within his framework to understand achievement motivation, McClelland (1961) proposed that regardless of culture or gender, people are driven by: achievement, power, and affiliation. He proposed that these needs were socially acquired and the extent to which these motivators are learned varies from person to person, and depends on the individual and his or her background (Butler, 2014). Achievement Motivation Theory recognizes the need for Achievement, the need for Power, and the need for Affiliation as common themes to explain and predict behavior and performance acquired during an individual's lifetime (Ibid). The need for achievement is characterized by the wish to take responsibility for finding solutions to problems, set goals and get feedback on levels of success.

McClelland (1961) described the need for Achievement as victory or accomplishment with some standard of excellence. Phelan and Davidson (1994) explained the need for achievement to be an unconscious concern for excellence through a person's efforts.

B. *Sex Differences*

There are numerous studies on sex differences in achievement motivation at school in the literature of psychology. One of the earliest studies was conducted by Morris (1959) which referred to the psychic and social differences between sexes. The study concluded that the education outcomes of men and women will, at least in part, be different at the graduate and collegiate level.

Mackintosh (1998) claimed that there is no sex difference in general intelligence. He defined general intelligence as the reasoning ability and its best measure is the Progressive Matrices. After examining two tests administered by the Israeli Defense Forces which qualify IQ, Flynn (1998) finds no sex difference. Kimball (1989) finds that in contrast to standardized measures of mathematics achievement tests like SAT-M, female students outperform males in math classes.

There is more literature that supports the differences position. For example, Cartwright et al. (2013) reported that intrinsic motivation is related to significantly greater levels of academic achievement for male, but not for female students. However, the generalizability of these particular findings appears limited due to the use of a small sample size, and specific focus on physiology students.

In a study with 419 Italian students, Vecchione et al. (2014) revealed that the predictive value of intrinsic motivation on academic outcome tended to be stronger for females, whereas the impact of extrinsic motivation was stronger for males. However, given the paucity of studies in the area, research with more diverse student populations is warranted.

Another study investigated eight different types of goal orientations to determine predictability of academic achievement (Giota, 2002). Participants in this study consisted of 7,391 students who were part of a longitudinal Swedish project called "Evaluation through Follow up." The investigator examined male and female students in grades 6 and 8. The results revealed that there were gender differences in the types of goals for which males and females strived in school. More specifically, they found that girls were more likely than boys to score higher on academic achievement in language. Boys were more likely than girls to score higher on domain-specific mathematics/science.

Linenbrink and Pintrich (2002) examined research pertaining to student motivation and four key components that included academic self-efficacy, attributions, intrinsic motivation, and achievement goals. Males and females were found to have different competence-related beliefs during childhood and adolescence (as cited in Wigfield & Eccles, 2002). Results revealed that boys had higher competence beliefs in sports activities and math compared to girls.

Other researchers have investigated gender differences in future orientation and motivation (Greene & DeBacker, 2004). This meta-analysis examined differences in orientation and motivation across several studies. They concluded that females typically pursue a greater array of goals compared to males. The researchers believe that this is possibly due to the modern Western culture of women in the workforce and pursuing more jobs that were once held exclusively by males. The researchers suggested that female students are more affected by fear of failure than males. They indicated that this fear of failure creates anxiety and likelihood of withdrawing before obtaining a goal. They concluded that the school setting plays a role in the type of motivation that males and females maintain.

In studies in which researchers specifically examined self-evaluative bias, boys showed more positive bias in math than did girls (Dupeyrat, Escribe, Huet, & Regner, 2011). Similarly, males overestimated and females underestimated their numerical, spatial, and

general intelligence (Steinmayr & Spinath, 2009). These patterns have been linked to culturally transmitted gender roles and expectations that orient boys to be both more confident and more motivated to succeed in what are perceived as gender-appropriate domains (Eccles, Jacobs, & Harold, 1990; Nagy et al., 2010).

Carr and Mednick (1988) tend to lend support to the afore-stated view that culture linked to childhood socialization may explain gender differences in achievement motivation. In a study of ninety seven boys and one hundred girls they found that socialization practices have different effects on Achievement motivation depending on who is been nurtured. Their study revealed that Nontraditional sex role training led to higher achievement motivation for girls and traditional sex role training led to higher achievement motivation for boys.

In another study, researchers examined gender differences in achievement motivation while evaluating the psychometric properties of the Academic Motivation Scale (Cokley, Bernard, Cunningham, & Motoike, 2001). Participants in this study consisted of 263 undergraduate psychology students at a Midwestern University. The instrument used to assess academic motivation was the Academic Motivation Scale, which measures intrinsic, and extrinsic, motivation. No gender differences were found in this study, and only partial support for the construct validity of the instrument was found. The primary finding was that individuals with a high academic self-concept had more of an internal locus of control. They concluded that these individuals are more intrinsically motivated than extrinsically motivated.

Gower, Cole and Philips (1987) investigated gender differences in undergraduate psychology students at Texas Christian University. Twenty eight males and twenty four females participated in a game called Prisoner's Dilemma. Males and Females used different strategies to play the game. The findings were that achievement motivation could not adequately explain differences in game behavior. The researchers thus concluded "Regardless of gender, some individuals in a competitive situation are motivated by a desire to avoid losing" (Gower, Cole & Philips, 1987.p4). Other researchers have found that when females begin to reach adolescence, they feel the need to conform to female gender roles (Basow & Rubin, 1999). Gender roles for both males and females begin to intensify starting in early adolescence due to internal and external forces that require adjustments. Such adjustments include physiological, psychological, and social changes that male and female adolescents endure that influence the formation of an adolescent's self-esteem, self-competency, and perceptions. The authors suggested that these adjustments may lead to different focuses in achievement motivation for males and females.

In summary, the research on gender differences in achievement for males and females has resulted in inconsistent findings. Some researchers have found no difference (e.g., Ligon, 2006), whereas others have found differences (e.g., Vermeer, Boekaerts, & Seegers, 2000).

C. Age and Achievement

Research suggests that age play a role in achievement motivation. Academic self-concept as a construct of achievement motivation, is thought to change with developmental levels such that younger children's academic self-concept is centered more on internal factors (Guay, Marsh, & Boivin, 2003). For example, younger children are more motivated intrinsically to complete their homework or to study for a test (Ibid). As children get older, they are more likely to have academic self-concepts that are influenced by external factors such as rewards or incentives. This means younger children's motivation may change as they move from pre-adolescence to adolescence (Ibid).

As children enter different academic settings, it could also be that the demands change and children are reinforced differently by teachers (Ibid). This study included three cohorts of French-Canadian children (N=385) in grades 2 through 4. The participants' academic self-concept was measured. Academic achievement was measured by the questionnaire that the teachers completed. The results indicated that as these children become older, their academic self-concept responses become more strongly correlated with academic achievement (Ibid).

Researchers specifically examined different domains related to achievement and self-competence in children (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002). Notable, were the researchers' findings concerning self-perceptions of competence. They found that self-perceptions of competence and subjective task values declined with age. This suggests that the decline in self-perceptions is more of a downward trend rather than a leap in self-perceptions relating to achievement. They also found that self-perceptions of competence are related to the value of the activity in school.

Other researchers studied the impact of student transitions of 7th, 9th, and 11th graders on motivational tasks (Yeung & McInerney, 2005). The study consisted of 199 high school students from Hong Kong with the ages ranging from 12 through 18 years of age. Motivation was assessed using scales with four specific domains that measure task, effort, competition, and praise orientation. The scale was tested for validity by applying a structural equation modeling analysis. The study found that 7th graders scored significantly higher on task and effort scores than the other grade levels. They concluded that overall student motivation drops after 7th grade. Therefore,

effort motivation begins to drop around adolescence. The researchers found that competition and praise orientation declined consistently across the grades.

Another study examined adolescents' academic orientations during their high school years (Crosnoe, 2001). The participants were from nine high schools and completed two questionnaires in which covered social, educational, and psychological factors. Results of the longitudinal study indicated that the students first began high school with moderate level of academic orientation, but experienced significant declines in academic orientation over the period they were in high school. Studies examining age-related changes in achievement goal orientations in children and adolescents focus on developmental and contextual theories to explain changes in goal orientations (Wigfield & Cambria, 2010). Developmental theorists (e.g., Nicholls, 1990) posit that younger children, especially those in elementary schools, are unable to distinguish the difference between ability and effort. In the elementary school years, students believe that intelligent students are those making a great deal of effort. However, with cognitive development, older students easily segregate effort and ability and believe that students who try to exert a lot of effort to accomplish a task are in fact less intelligent. Other developmental theorists (Dweck & Legge, 1988) make a distinction related to students' ability or intelligence views. According to Dweck and Leggett (1988), students have two different views about their abilities, namely entity and incremental views.

Developmental theorists (Dweck & Leggett, 1988; Nicholls, 1990) also posit that although students generally begin elementary school with mastery goal orientation, they become progressively more performance oriented as they move through upper grades. Theorists focusing on contextual variables take into account the instructional contexts and how they can affect students' goal orientations in schools (Wigfield & Cambria, 2010). Researchers specifically emphasized the difference in classroom and school goal culture to explain the reasons for changes in achievement goal orientations (Meece, Anderman, & Anderman, 2006). Specifically, a school environment emphasizing improving skills and learning may positively affect some students' master achievement goals and motivation, whereas school environments focusing on competition and demonstrating skills that are superior to those of other students may make some students more performance oriented and decrease their motivation (Meece, Anderman, et al.,2006).
Cross-sectional studies examining age-related differences in divergent student cohorts have shown that elementary school students were higher in mastery approach goal orientation than middle school students (Leondari & Gialamas, 2002) or showed no difference (Liu, 2003), and middle schools students were also higher in mastery goal orientation than high school students (Gonida, Kiosseoglou, & Voulala, 2007).With respect to performance approach goals, similar to mastery goal orientations, researchers found that middle school students were higher in performance approach goals than high school students (Gonida et al., 2007). Performance avoidance goals also tend to lessen between middle school and high school (Leondari & Gialamas, 2002).

However, there are at least two obvious limitations in the studies mentioned above. They compared students from different educational levels, such as junior high school, middle high school, and senior high school. However, students' achievement goal orientations may change within a school year or across specific education levels as a function of age (Dweck & Leggett, 1988). Secondly, because these studies included individuals of different developmental stages, such as early (Liu, 2003), middle, or late adolescence (Gonida et al., 2007), they may overlook specific changes within specific developmental stages, such as middle adolescence.

Differences in results cannot only be attributed to sample differences (Meece,Glienke, & Burg, 2006) and/or divergent assessment instruments (Dekker et al., 2013), but may also indicate social, cultural, and contextual factors at work. Taken together, much of the available evidence on age differences is inconsistent and requires further investigation. Other researchers investigated achievement motivation changes over time and the perception of academic setting factors in order to determine influences of academic outcomes (Wilkins & Kuperminc, 2010). The participants of this study included 143 Latino adolescents. Results revealed 8th grade students reported an increase in mastery-approach achievement motivation within an academic setting that was task-focused as they transitioned to high school.

Ligon (2006) studied achievement motivation of 175 males and females in elementary, junior high, and high school from a white, middle-class, suburban school district in New York. The participants in this study were selected from the 4th, 7th, and 10th grades. Ligon wanted to specifically analyze differences in students' levels of achievement motivation based on gender and developmental level. The study used the Achievement Motivation Profile (AMP), Achievement Motivation Profile Jr. (AMP Jr), and the Student's Perception of Achievement Motivation Question. The results of the study indicated that achievement motivation across developmental level was significant. Drawing from the inconclusive nature of the theoretical and empirical literature we expected that there would be no significant differences between girls and boys in achievement motivation and also between younger adolescents and older adolescents in their achievement motivation.

V. RESEARCH METHODOLOGY

A. Research Design

This work employed a survey research design. The choice of this design was to enable the researcher make inferences about the study population based on the selected sample. Given the limited time the researcher had to complete this dissertation it was apparent that reaching the entire population for this study will be very demanding. The survey method provided the fastest and cost effective means of obtaining information from the selected sample. A close ended questionnaire design based on a standardized scale was used to elicit response from the sample.

B. Sampling Setting

The sampling area of this study was the University Practice Senior High School, Cape Coast. The school is located in the central region of Ghana and is currently one of the most highly populated schools with a population of 1817. The school is a co-educational school and has been in existence since 1976. It is currently run by the Ghana Education Service as a category B school. At the time of conducting this study, the final year students were writing their WASSCE and were therefore not included in the study population. The total study population therefore comprised first and second year students whose number in total was 1244.

C. Population and Sample

The total population of the University Senior High School, form one's and forms two's consisting of 526 males and 718 females. Breakdown of population by form and gender can be found in tables 1 and 2.

Table 1: Breakdown of Population by Form and Gender

FORM	GENDER		
	MALE	**FEMALE**	**TOTAL**
ONE	276	394	670
TWO	250	324	574
TOTAL	**526**	**718**	**1244**

Source: University Practice Senior High School 2017/2018 academic year records

Table 2: Breakdown of population by gender and class

CLASS	FORM ONE		FORM TWO	
	MALE	**FEMALE**	**MALE**	**FEMALE**
General Arts	113	176	98	143
General Science	57	52	41	41
Business	58	30	58	24
Home Economics	5	88	-	88
Visual Arts	6	37	33	14
Agricultural Science	37	11	20	14

Source: University Practice Senior High School 2017/2018 academic year records

A sample of 293 from the University Practice Senior High School from the population of first and second year students as shown in Table 2 participated in the study. A representative sample of the population was obtained using Krejcie and Morgan (1970) Sample Size Calculation.

D. The Research Instrument

A questionnaire was used in the study. The instrument was a 50 item questionnaire with all questions closed ended. It was adapted from DEO-MOHAN's Achievement Motivation (n-Ach) Scale (DMAMS) (1985). Thirteen (13) of the fifty (50) items were negative and 37 were positive items. Responses were made on a 5 point Likert scale. A positive item carries the weights of 4,3,2,1 & 0 respectively for

the categories of always, frequently, sometimes, rarely and never. The negative items were scored reversely i.e. 0,1,2,3 & 4 for the same categories.

## VI. RESULTS AND DISCUSSION

A. Introduction

This chapter describes the analysis of data collected. The findings relate to the research hypothesis that guided the study. Data was analyzed to identify, describe and explore the differences between older and younger adolescents and male and female adolescents in their achievement motivation. Data from 293 students was used for data analysis using the Analysis of Variance (ANOVA).

B. Demographic Relationships and Study Variables

This set of data was intended to describe demographic variables of the sample and to assess for any influence on the research findings. The demographic data consisted of age, sex, and class of respondents.

The gender of respondents was sought to enable the researcher ascertain gender distribution of the older and younger adolescents. The result is pictorially displayed in Figure 1.

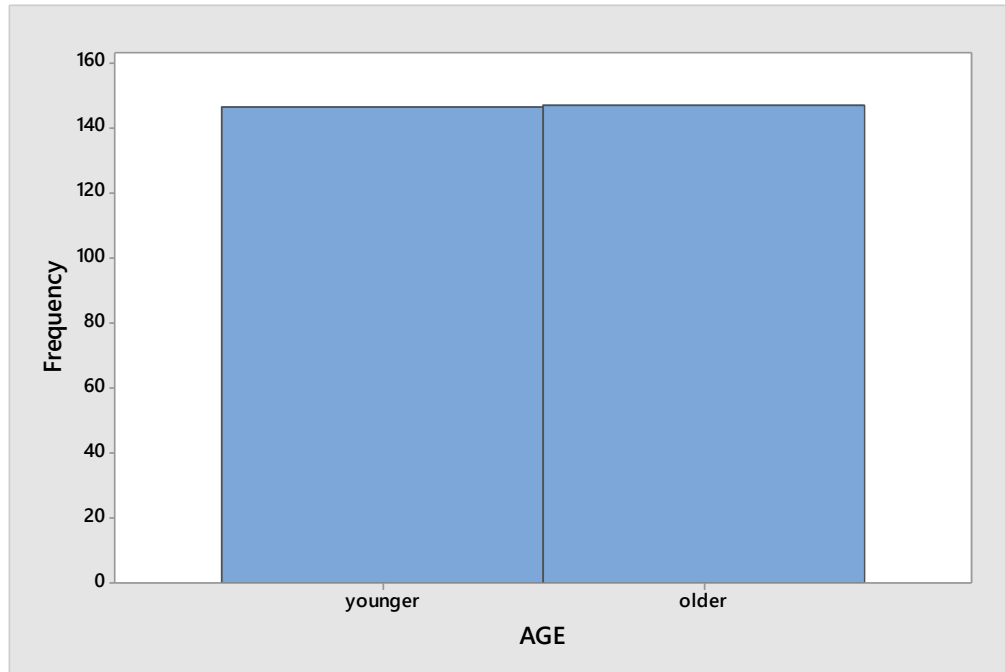*Figure 1: Proportion of Male and Female respondents*
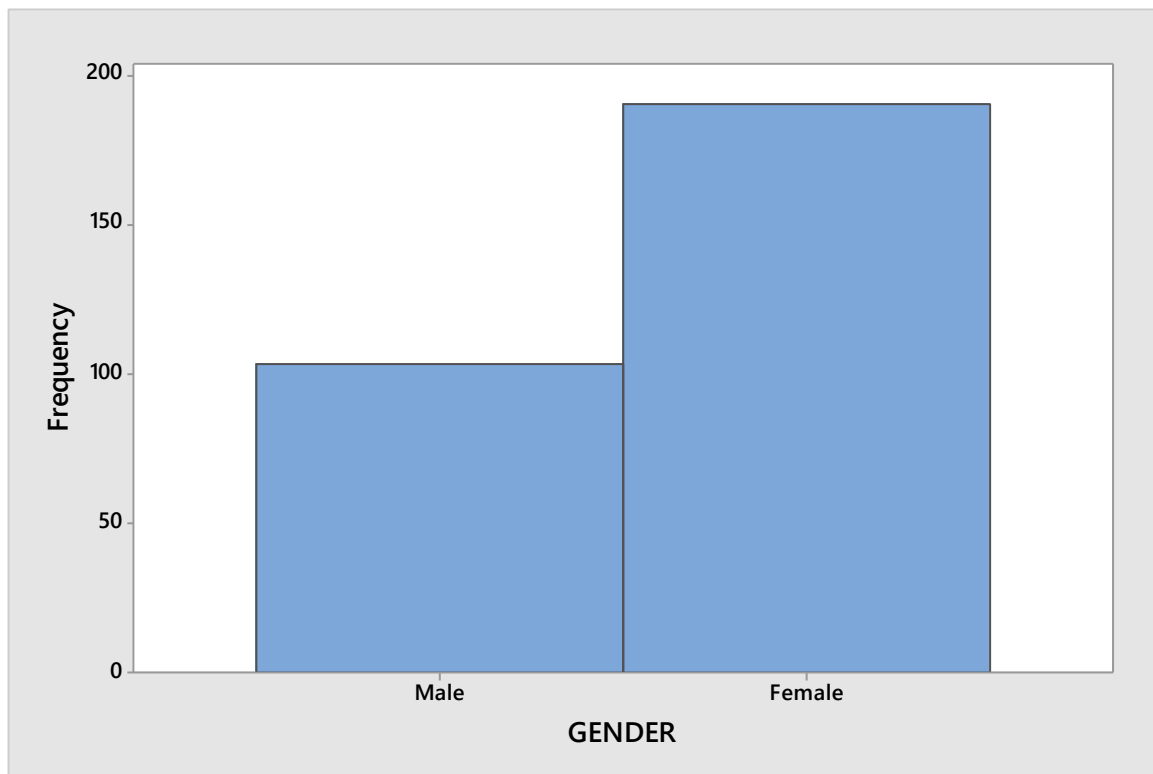
Source: University Practice Senior High School 2017/2018 academic year records

From Figure 1, it can be observed that the number of female respondents outweighed that of their male counterparts. About one hundred and two of the respondents were male whiles the female respondents were one hundred and eighty-nine. This establishes the point that the University Practice Senior High School has a greater number of female students than males.

The age of respondents was sought to find out the age distribution of adolescents. The results are displayed in Figure 2.

Figure 2: Distribution of Age of respondents

Source : University Practice Senior High School 2017/2018 academic year records

From Figure 2, it can be seen that the number of older adolescents' respondents slightly outweighed the younger adolescent respondents in the study. Whilst 146 younger adolescents took part in the study representing 49.8%, 147 older adolescents took part in the study representing 50.2% of the respondents.

This part sought to ascertain the number of respondents by both age and gender. The distributions of the four categories of independent variables used for this study are presented, namely: younger male adolescents, younger female adolescents, older male adolescents and older female adolescents. Table 3 and Figures 3, 4 and 5 describe this relationship.

Table 3: Age and Gender Distribution of Respondents

|	N	Minimum age	Maximum age	Mean Age	Std. Deviation
Young male	48	14	16	14.88	0.789
Older male	55	17	19	17.98	0.991
Young female	98	14	16	14.79	0.777
Older female	92	17	19	17.99	0.908

Source: University Practice Senior High School 2017/2018 academic year records

From Table 3, it is seen that there were forty-eight (48) younger adolescent males and fifty-five (55) older adolescent males. It is also observed that the younger adolescent females were ninety-eight (98) whilst the older adolescent females were ninety-two (92). The age

range for younger adolescent males was 14 to 16, that for older adolescent males was 17 to 19. The age range for younger adolescent females was similarly 14 to 16 and that for the older female adolescents was 17 to 19.

Figure 3: Percentage Distribution by Age and Gender
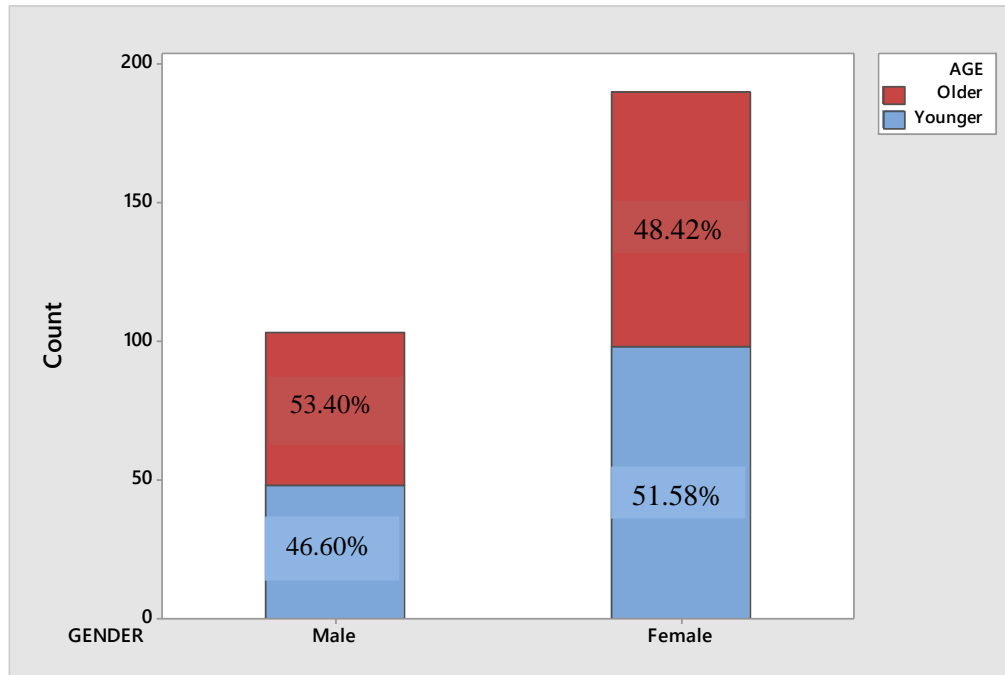
Source: University Practice Senior High School 2017/2018 academic year records

From Figure 3, it can be detected that about forty-seven percent (46.60%) of young males adolescents took part in the study whiles about fifty-three percent (53.40%) were older male adolescents. Likewise, it could be observed that, about fifty-one percent (51.58%) of young female adolescent participated in the study while about forty-eight percent (48.42%) were older female adolescent. Again, from Figure 3, it could be observed that out of one hundred and forty-seven (147) older adolescents who took part in the study, about sixty-two percent (62.59%) were females and about thirty-seven percent (37.41%) were males. This means that a greater number of older male adolescents took part in the study than the younger male adolescents. As greater number of older adolescent males took part in the study, their female older adolescents had fewer number participating in the study than their younger female adolescents. The results also imply that the number of younger female adolescents in the Senior High Schools is greater than the number of older female adolescents. This means that a greater number of females enroll in school at an early age disputing the old adage that *'the kitchen belongs to women whiles attending school belong to men'.*
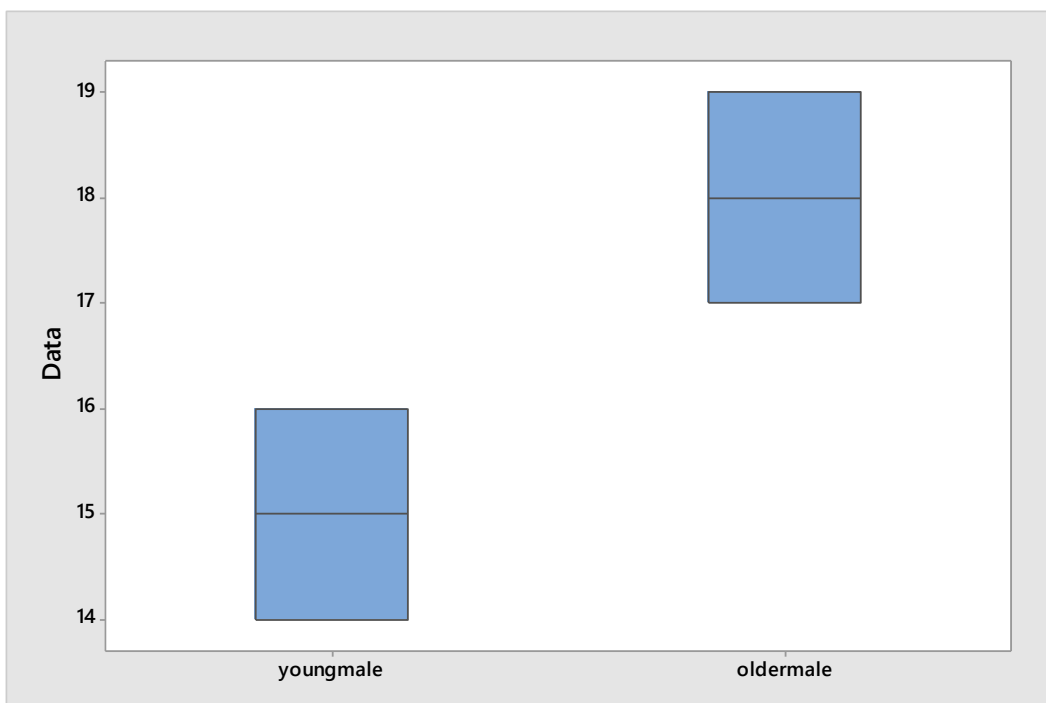
Figure 4: Boxplot for Younger Female and Older Female Adolescents
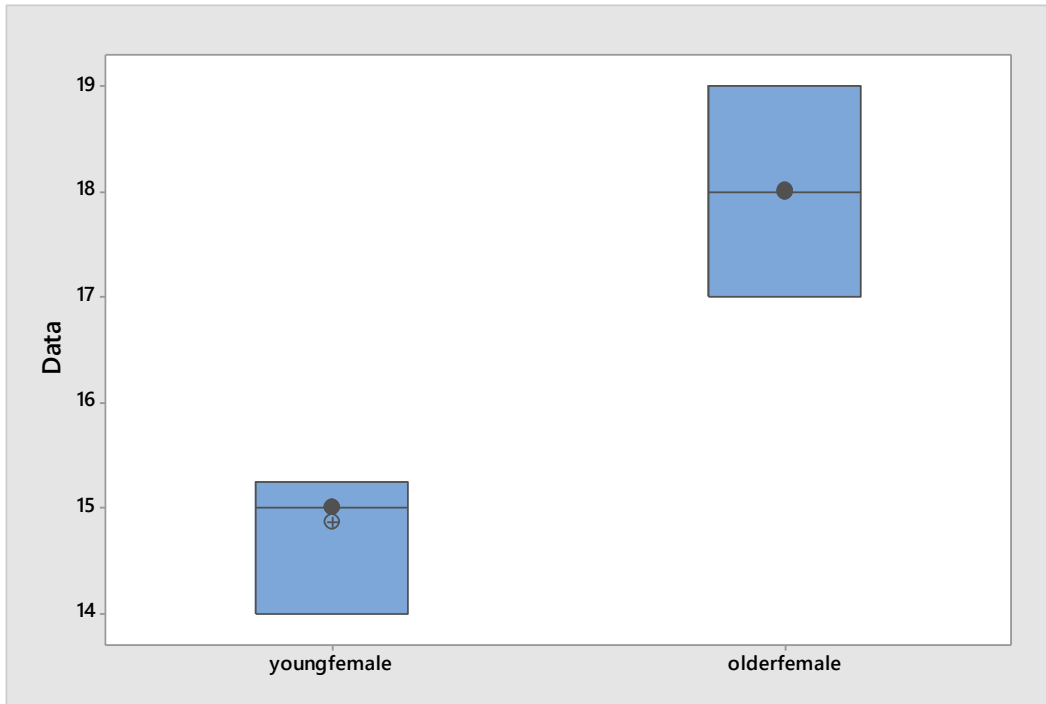
Source: University Practice Senior High School 2017/2018 academic year records

From Figure 4, the lower quartile age for the young female adolescent was 14 years while the upper quartile was 15.25 years. Again, it could be observed that the median age for the young female adolescent was 15 years. Figure 4 continues to show that the median age for older female adolescent was 18 years while the lower quartile and upper quartile for the older female adolescent was 17 and 19 years respectively.

Figure 5: Boxplot for Younger Male and Older Male Adolescents

Source: University Practice Senior High School 2017/2018 academic year records

From Figure 5, the lower quartile age for the young male adolescents was 14 years while the upper quartile was 16 years. Again, it can be observed that the median age for the young male adolescent was 15 years. Figure 5 shows that the median age for older male adolescent was 18 years while the lower quartile and upper quartile for the older male adolescent was 17 and 19 years respectively.

C. Achievement Motivation among Older and Younger Adolescents

The differences in achievement motivation among the various categories of adolescents was sought in order to realize their significance and the effect of each of the variables (age and gender) on achievement motivation. The findings are shown in Tables 4, 5 and 6.

Table 4: Analysis of Variance for younger male and older male adolescent achievement motivation

	df	Sum of Squares	Mean Square	F	P-Value
Male	1	242.238	242.238	0.647	**0.423**
Error	101	37809.412	374.351		
Total	102	38051.650			

Source: University Practice Senior High School 2017/2018 academic year records

From Table 4, it can be observed that the p-value (0.423) is greater than the α-value (0.05) hence the findings fail to reject the null hypothesis and conclude that there is no significant difference in the achievement motivation among the younger male adolescents and older male adolescents in the University Practice Senior High School in Cape Coast.

Table 5: Analysis of Variance for younger Female and older Female adolescent achievement motivation

	df	Sum of Squares	Mean Square	F	P-Value
Female	1	333.225	333.225	1.036	**0.310**
Error	188	60459.428	321.593		
Total	189	60792.653			

Source: University Practice Senior High School 2017/2018 academic year records

From Table 5, it can be observed that the p-value (0.310) is greater than the α-value (0.05) hence the study fails to reject the null hypothesis and conclude that there is no significant difference in the achievement motivation among the younger female adolescents and older female adolescent in the University Practice Senior High School in Cape Coast.

Table 6: Analysis of Variance for gender achievement motivation

	df	Sum of Squares	Mean Square	F	P-Value
Gender	1	70.304	70.304	.207	**.649**
Error	291	98844.303	339.671		
Total	292	98914.608			

Source: University Practice Senior High School 2017/2018 academic year records

From Table 6, it can likewise be observed that the P value .649 is greater than the a-value 0.05 the study fails to reject the null hypothesis and conclude that there is no significant difference in the Achievement Motivation of males and females in the University Practice Senior High School.

D. Discussion of Results

The aim of the study was twofold. The first was to explore age differences among adolescents in achievement motivation at the University Practice Senior High School (UPSHS) and the second was to examine the variation in terms of gender in adolescents' achievement motivation at the same school. To this end, a survey was conducted based on an achievement motivation instrument

developed by Professor Deo-Mohan (1985). The findings of the study presented in chapter 4 of this study are discussed below within the context of the study hypothesis and reviewed literature.

Ho1. There are no significant differences in the levels of Achievement Motivation between younger male and older male Adolescents in the Senior High School?

No significant differences were found between younger male adolescents and older male adolescents in their achievement motivation at the University Practice Senior High School. The hypothesis that no significant differences exist between younger and older male adolescents was therefore affirmed by this study. This findings is inconsistent with many studies using self-report scales that have reported significant differences between younger and older adolescence in their achievement motivation (Guay, F. Marsh & Bovin 2016, Eclles & Wingfield, 2002, etc.) .The study is also inconsistent with several findings that point to significant differences in achievement motivation between older and younger adolescents. Also worth noting is the fact that the study is not consistent with the developmental theory model presented earlier in this study which basically finds differences in achievement motivation as a person progresses through the lifespan. In sum, the finding is inconsistent with two different sets of findings presented in the literature both of which in different directions suggests significant differences between younger and older adolescents in their achievement motivation. Whilst Guay, Marsh & Boivin (2003) generally find stronger correlation between older adolescents and younger adolescents in their academic self-concept as a facet of achievement motivation, Jacobs, et al (2002); Yeung & McInerney (2005); Salmelo-Aro, et al (2007), find decrease in achievement motivation with increase in age. As stated, this study finds no differences between older male and younger male adolescents in their achievement motivation. The difference may be explained by obvious methodological differences. Guay, et al (2003) uses a cohort study approach. Yeung & McInerney (2005) uses a structural equation model. Crossnoe (2001) uses a longitudinal study model. This study however employs a survey design.

Ho2 There is no significant differences in the levels of Achievement Motivation between younger and older female adolescents?

Similar to the findings in the first hypothesis above, the study found no significant differences between younger and older female adolescents in their achievement motivation. In effect, the study established that irrespective of the stage of adolescents (whether younger or older), female adolescents show similar achievement motivation patterns. The non-existence of differences observed in this study may also be explained by Manheim's generational Unit model (Edmunds et al. 2002). His approach provides a strong sociological basis for the insignificant differences between younger and older female adolescents in their achievement motivation. According to Manheim, people of the same generation facing the same political, social, historical and religious problems and situations think alike. Female adolescents who were studied fell within the same generational cohort – essentially, they fell within the same decade and therefore according to Manheim, they are expected to go through similar developmental experiences (social, political, economic and religious). Consequently, there is a tendency for these groups to think and behave in similar ways and to have similar interest and values. The groups studied were born into a computer age with abundant access to information; it therefore follows that in most cases they will show similar patterns of achievement motivation.

Also, self-determination theorists provide some useful perspective to explaining the findings of this study. In the view of to Deci and Ryan (1985, 1991), the innate psychological needs of autonomy (the belief that one is the origin and regulator of his or her actions), competence (the belief that one can efficaciously interact with the environment), and relatedness (the seeking and development of secure and connected relationships with others in one's social context) underpin self-determined motivation. That is, the extent to which the aforementioned needs are fulfilled by what is available from the social environment influences the extent to which the motivation adopted by the individual is considered self-determined. To this end, several different types of self-regulatory styles have been identified (Deci & Ryan, 1985), each having specific consequences for learning, performance, personal experience, and well-being (Deci & Ryan, 1991). A reasonable inference based on this theory will be that similar self-regulation conditions by way of intrinsic and extrinsic motivation exist for both younger and older female adolescents at the University Practice Senior High School (UPSHS).

Ho3 There is no significant difference in the levels of achievement motivation between male and female adolescents

This study also sought to find out the differences between the two Genders in their achievement motivation. It was hypothesized that there is no significant differences between Male and Female adolescents in their achievement motivation. The findings of the study affirmed this hypothesis. No significant differences were found between Male and Female Adolescents in their Achievement Motivation.

 This finding is consistent with previous finding (Gokley, Bernard, Cunningham & Motoike, 2004) which found no gender differences between male and female respondents in their achievement motivation. It's also consistent with the work of Gower, Cole and Philips (1987) whose investigation of gender differences in undergraduate psychology students revealed that the desire to win and the desire to avoid losing existed among respondents irrespective of gender. Gillison et al (2006) also corroborates this finding. His study established that in terms of self-regulation, a facet of extrinsic motivation, both gender show no significant differences. The study is however

inconsistent with findings that suggest that significant gender differences exist between the two genders in view of factors such as gender roles, socialization and relative different goal orientations. (Baswow & Rubin 199, Stinmayr & Spinath, 2009., Green & Debacker, 2004). It must however be explained that most of the studies that have recorded significant differences have been based on research on a specific domain of achievement motivation (Catwright et al, 2013, Giota, 2002, etc.) or in some cases have focused on specific subject areas (Guerin, Fortier & Sweet, 2012) It is therefore not precisely comparable to this study. Also, as indicated in the literature review, much of the contrasting literature have been based on a meta-analysis and on large sample sizes (Duspeyrat, Escribe, Huet & Regner, 2011, Kurma, 2004). In view of the different methodologies, different conclusions are expected. The findings of this study could be explained by various findings in the literature. It suggests that contrary to the views of researchers such as (Eccles, Jacobs, & Harold, 1990; Nagy et al., 2010), who suggest that culturally transmitted gender roles and expectations orient boys to be both more confident and more motivated to succeed, girls are showing achievement motivation similar to their male counterparts and therefore perhaps the traditionally held cultural beliefs about the two genders is changing.

Viewed in the light of the social determination theory, it will be right to observe that optimal conditions exist for both boys and girls to develop in the University Practice Senior High School thus the no differences in their achievement motivation. It is also important to note that it is not known whether the non-existence of significant differences between male and female students reflect developmental trends or are a reflection of educational policy within the secondary schools. For example, with the general deliberate effort by government to mainstream girls education and to promote the education of female children through enhanced enrollment in secondary schools as well as government efforts at promoting girls participation in the Science Technology Engineering and mathematics (STEM) fields, there is no doubt that the right social conditions have been created for girls to aspire to their highest potential. In an era where girls have better access to educational and social opportunities like their male counterparts, it is to be expected that both sexes may show similar motivation patterns.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

A. Introduction

This part provides summary of key findings, key conclusions derived from the findings, recommendations arising from the key findings and suggestions for further research.

B. Summary

Stemming from the laudable framework provided by the self-determination theory and the lack of empirical consensus on the literature on age and gender differences in achievement motivation among adolescents, this work sought to investigate whether there are differences in achievement motivation between younger and older adolescents and also whether there are differences between male and female adolescents in achievement motivation. To this end, 293 adolescents were selected by the systematic random sampling technique and were made to respond to questionnaire adapted from the Deo-Mohan Achievement motivation scale (1970).

C. Key Findings

No significant differences were found between older male adolescent and younger male adolescents in their achievement motivation. There was an absence of significant differences between younger female adolescents and older female adolescents in their achievement motivation.

Finally, no differences were found between male and female adolescents in their achievement motivation.

D. Conclusion

The absence of significant differences between younger and older adolescents in their achievement motivation leads to the conclusion that adolescents whether young or old have the same tendency to achieve. It also points to the fact that both age groups are affected in a similar manner by intrinsic and extrinsic motivational factors. Furthermore, considering the absence of significant differences between male and female adolescents in their achievement motivation, it leads to the conclusion that male and female adolescents have similar levels of achievement motivation.

These conclusions have several implications for educators, parents and social workers. In the first place, since the study reveals that males and females show no difference in achievement motivation, it provides fertile grounds for rigorous promotion of fields that are traditionally male dominated such as the Science, Technology, engineering and Mathematics (STEM) fields at the secondary school level among females. School Counselors should make it a deliberate policy to promote these fields among females on the strength of the evidence that male and female students are equally motivated to achieve.

Since there is some evidence that achievement motivation decline as adolescents progress across the lifespan (Dweck & Leggett, 1988), it is suggested that achievement motivation training is taken seriously at post-secondary level through the provision of robust guidance and counseling services so that as adolescents transition into college and graduate school they maintain higher levels of achievement motivation. Contrary to studies that there is a general decline in achievement motivation with age, this study has established that, at least among adolescent groups in the University Practice Senior High School (UPSHS), there is no decline. This study may therefore provide useful basis to cautiously conclude that the decline in achievement motivation over the lifespan does not happen in adolescence.

E.   Recommendations

This study has established that there are no significant differences between younger and older adolescents in the University Practice Senior High School in their achievement motivation and also that there are no significant differences between male and female adolescents in their achievement motivation. In view of these conclusions, the following recommendations are hereby made for implementation by policy makers, researchers and teachers:

1.   Teachers should make sure that Male and female students should be given equally challenging roles in the school system, particularly leadership. There should be no discrimination based on the assumption that some roles are more male oriented.
2.   This finding provides encouragement for policy makers and practitioners who seek to increase enrollment of particularly girls in the STEM fields. It is a good indication that we should pursue a deliberate policy of girls in the STEM fields because when they find themselves in STEM programmes, they will have the same drive to succeed as their male counterparts.
3.   With the impressive achievement motivation trend, it means the University Practice Senior High School may have optimal conditions for achievement motivation of both genders. To continue to maintain this trend, it is suggested that the U.P.S.H.S. take achievement motivation training for both genders seriously, so that there is no possible decline for one gender in the future.

F.   Suggestions for Further Research

This work examined age and gender differences in achievement motivation across gender and age among adolescents in the University of Cape Coast Practice Senior High School. Results showed that no significant differences exist between male and Female and between Young and Old adolescents in their achievement motivation. The result hold many more prospects for future research among which are as follows:

a)   This study could be extended to look into the specific domains of achievement motivation and whether age and gender differences exist in these domains, in order to support or contest existing literature on differences in achievement motivation between gender and between age groups. It is therefore recommended that further empirical test is done to examine whether age and gender differences exist in the specific domains of achievement motivation among Ghanaian adolescents.
b)   Secondly, the author realizes that, the data presented and the subsequent conclusions drawn were based on only one school located in a semi-urban center. This school is within a university setting which has its own peculiar socio cultural characteristics. Subsequently, an obvious research strategy is to replicate the work in other settings, especially rural settings to make conclusions more valid.
c)   Thirdly because the study examines developmental groups (younger and older adolescents), a longitudinal study in the future may help understand more clearly whether achievement motivation patterns change across the lifespan of adolescents within the Ghanaian context. Also, a longitudinal study will be necessary to develop a better understanding of the relationship between the different aspects of achievement motivation and gender/age overtime. Alternatively, an intervention study will allow an opportunity to examine the extent to which changes in age may produce achievement motivation.

REFERENCES

[1] Alspaugh, J. W. (1998). The achievement loss associated with the transition to middle school and high school. *Journal of Educational Research*, 92(1), 20-25.

[2] Atkinson, J. (1957). Motivational determinants of risk taking behavior. *Psychological Review*, 64, 359–372.

[3] Atkinson, J. W., & Feather, N. T. (1966). *A theory of achievement motivation*. New York: Wiley.

[4] Baker, R. S. (2004). Intrinsic, extrinsic, and amotivational orientations: Their role in university adjustment, stress, well-being, and subsequent academic performance. *Journal of current psychology*, 23 (3), 189–202

[5] Basow, S. A. & Rubin, L. R. (1999). Gender influences on adolescent development. In N. G. Johnson, M. C. Roberts, & J. Worrell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 25-52). Washington, D. C.: American Psychological Association.

[6] Bong, M. & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really?. *Educational psychology review*, 15(1), 1-40.

[7] Butler, R. (2012b). Striving to connect: Extending an achievement goal approach to teacher motivation to include relational goals for teaching. *Journal of Educational Psychology*, 104, 726–742.

[8] Caldwell, T. W. (2007). *Evaluation of ninth grade transition program for at-risk students*. East Tennessee State University. (UMI No. 3256786).

[9] Carr, P.G. & Mednick, M.T. (1988). Sex role socialization and the development of achievement motivation in black preschool children. *Sex Roles*, 18, 169–180.

[10] Cartwright, K. B., Timothy, R., Marshall & Wray, E. (2016). A longitudinal study of the role of reading motivation in primary students' reading comprehension: Implications for less simple view of reading. *Reading Psychology*, 37(1), 55-91

[11] Chandra Shekhar, Rejinder Kumar (2016). Gender differences in achievement motivation, self-efficacy academic stress and academic achievement of secondary school students. *International Journal of Applied Social Science*, 2 (5&6), 117-124

[12] Chmelynski, C. (2004). Ninth-grade academies keep kids in school. *The Education Digest*, 6 (5) 48.

[13] Clark, Gina (2010) *Differences in the domains of achievement motivation based on gender and developmental group*. Western Carolina University.

[14] Cokley, K. O., Bernard, N., Cunningham, D., & Motoike, J. (2001). A psychometric investigation of the academic motivation scale using a United States sample. *Measurement and Evaluation in Counseling and Development,* 34, 109-119.

[15] Crosnoe, R. (2001). Academic orientation and parental involvement in education during high school. *Sociology of Education*, 74(3), 210-230
       Deci and Ryan (1985, 1991)

[16] Dekker, S., Karabbendam, L., Lee, N. C., Boschloo, A., Groot, R., & Jolles, J. (2013). Sex differences in goal orientation in adolescents aged 10-19: The older boys adopt work avoidant goals twice as often as girls. *Learning and Individual Differences,* 26, 196-200. https://doi.org/10.1016/j.lindif.2012

[17] Deo, M. (1985). *Manual of Deo Mohan Achievement Motivation Scale.* National Psychological Corporation, Kacherighat, Agra.

[18] Dupeyrat, C., Escribe, C., Huet, N., & Regner, I. (2011). Positive biases in Self-assessment of mathematics competence, achievement goals, and mathematics performance. *International Journal of Educational Research*, 50, 241–250.

[19] Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to personality and motivation. *Psychological Review*, 95, 256-273.

[20] Eagly, A. H., & Wood, W. (1999). The origins of sex differences in human behavior: Evolved dispositions versus social roles. *American Psychologist*, 54, 408–423.

[21] Eccles, J.S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. *Handbook of Child Development*, 3, 1017-1095.

[22] Eccles, J., Midgley, C., & Adler, T. (in press)(1990). Age-related changes in the school environment: Effects on achievement motivation. In J. G. Nicholls (Ed.), *The Development of Achievement Motivation*. Greenwich, CT: JAI Press.

[23] Edmunds, J. and Turner, B. S. (2002). *Generations, Culture, and Society*. Buckingham: Open University Press, 2002.

[24] Elliot, A. J., McGregor, H. A., & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology*, 91(3), 549-563.

[25] Flynn, G. (1998). Is your recognition program understood?. *Workforce*, 77(7), 30-35.

[26] Gillison, F.B., Standage, M. et al (2006). Relationships among adolescents' weight perceptions, exercise goals, exercise motivation, quality of life and leisure-time exercise behaviour: A self-determination theory approach. *Health Education Research Theory and Practice*, 21(6)

[27] Giota, J. (2002). Adolescents' goal orientations and academic achievement: Long-term relations and gender differences. *Scandinavian Journal of Educational Research*, 46 (4), 349-371.

[28] Gokley, K. O., Bernard, N., Cunningham, D., & Motoike, J. (2004). A psychometric investigation of the academic motivation scale using a United States sample. *Measurement and Evaluation in Counseling and Development*, 34, 109-119.

[29] Gonida, E., Kiosseoglou, G. & Voulala, K. (2007). Perceptions of parent goals and their contribution to student achievement goal orientation and engagement in the classroom: Grade-level differences across adolescence. *European Journal of Psychology of Education, 23*(l), 23-39

[30] Gower, L. A., Cole, S. G., & Phillips. J. L. (1987). *Games strategies: Gender differences vs. motivational differences.* (ERIC Document Reproduction Service No. ED 279 951).

[31] Greene, B. A. & DeBacker, T. K. (2004). Gender and orientations toward the future: links to motivation. *Educational Psychology Review*, 16 (2), 91-120.

[32] Guay, F., Marsh, H. W., & Boivin, M. (2016). Intrinsic motivation and achievement in mathematics in elementary schools: A longitudinal investigation of their association. *Journal of Child Development*, 87(1).

[33] Guay, F., Ratelle, C. F., Roy, A., & Litalien, D. (2010). Academic self-concept, autonomous academic motivation, and academic achievement: Mediating and additive effects. *Learning and Individuals differences*, 20(6), 644 – 653.

[34] Guerin, E. Fortier, M. (2012) Motivational profiles for physical activity: Cluster analysis and links with enjoyment. *PH Enex Journal*, 4(2).

[35] Hall, J. F. (1989). *Learning and Memory* (2nd Ed.). Massachusetts: Allyn and Bacon

[36] Harackiewicz, J. M., Barron, K. E., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Predictors and consequences of achievement goals in the college classroom*:* Maintaining interest and making the grade. *Journal of Personality and Social Psychology*, 73(6), 1284-1295.

[37] Haycock, Kati & Jerald, Craig. (2002). Closing the Achievement Gap. *Principal*, 82(2), 20-23

[38] Hootstein, E. (1998). Motivating the unmotivated child. *Teaching Pre-K-8*, 29 (3), 58-59.

[39] Hsieh, P. H. & Schallert, D. (2008). Implications from self – efficiency and attribution theories for an under-standing of undergraduates' Motivation in a foreign language course. *Contemporary Educational Psychology*, 33, 513-532.

[40] Jacobs, J. E., Lanza, S., Osgood, D. W., Eccles, J. S., & Wigfield, A. (2002). Changes in children's self-competence and values: Gender and domain differences across grades one through twelve. *Child Development*, 73 (2), 509-527

[41] Kimball, M.M. (1989). A new perspective on women's math achievement. *Psychological Bulletin*, 105, 198-214.

[42] Krejcie, Robert V., Morgan, Daryle W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*.

[43] Lemos, M. S. & Veríssimo, L. (2006). Extrinsic classroom orientation: Data from a new adaptation. In Noronha, Machado, Almeida, Gonçalves, Martins & Ramalho (coords.), Actas da XI Conferência Internacional (Ed.), Avaliação Psicológica: Formase Contextos. (387-394). Braga: Universidade do Minh

[44] Leondari, A., & Gialamas, V. (2002). Implicit theories of intelligence, goal orientations, and perceived competence: Impact on students' achievement behavior. *Psychology in the Schools*, 39(3), 279–291.

[45] Ligon, N. Y. (2006). Assessing the achievement motivation across grades and gender. *Dissertation abstracts international section A: Humanities and Social Sciences,* 67(6-A), 2052.

[46] Linnenbrink, E. A. & Pintrich, P. R. (2002). Motivation as an enabler for academic success. *School Psychology Review*, 31, 313-327.

[47] Mackintosh, N. J. (1998). *IQ and human intelligence*. Oxford: Oxford University Press

[48] Mandel, H. P., & Marcus, S. I. (1988). The psychology of under achievement: differential diagnosis and differential treatment. In I. B. Wiley (Series Ed.), *Wiley series on personality processes*. New York: John Wiley & Sons.

[49] Marsh, H. W., & Hau, K.-T. (2003). Big-fish--little-pond effect on academic self-concept: A cross-cultural (26-country) test of the negative effects of academically selective schools. *American Psychologist*, 58(5), 364-376

[50] Massachi, Y. (2000*). A cross culture comparison of learning styles* (Masters Graduate Thesis). Retrieved from http://scholarworks.rit.edu/cgi/viewcontent.cgi?article=2357&context=thesis.

[51] McClelland, D. (1961). *The achieving society*. New York, N.Y.:D. Van Nostrand Company, Inc.

[52] McGeown, S. P., (2012). Sex or gender identity? Understanding children's reading choices and motivation, *Journal of Research in Reading*, 38 (1), 35-46.

[53] Meece, Anderman & Anderman, (2006) Classroom goal structure, student motivation and academic achievement. *Annual Review Psychol*. 57, 487–503

[54] Meece, Glienke, & Burg, (2006) Gender and motivation. *Journal of School Psychology*, 44, 351-373. http://dx.doi.org/10.1016/j.jsp.2006.04.004.

[55] Morris, W. Larry & Davis, Mark & H. Hutchings, Calvin. (1981). Cognitive and emotional components of anxiety: Literature review and a revised worry-emotionality scale. *Journal of educational psychology*, 73, 541-55.

[56] Nakata. (2006). *Motivation and experience in foreign language learning*. New York: Peter Lang Publishing.

[57] Nagy, G. Garrett, J., Trautwein, U., et al (2010). The development of students mathematics self-concept in relation to gender: Different Countries, different trajectories? *Journal of Research on Adolescence*, Pgs. 482 – 501.

[58] Nagy, G, Trautwein, U., Baumert, J., Koller, O., & Garrett, J. (2006). Gender and course selection in upper and secondary education: effects of academic self-concept and intrinsic value. *Educational Research and Evaluation*, 12(4), 323-345.

[59] Noguera, P. (2003). The role of social capital in the transformation of urban schools in low income communities*.* In S. Saegert, P. Thompson, & M. Warren (Eds.), *83 Social capital and poor communities*. New York: Sage.

[60] Nicholls, l., Duda, J et al (1990) Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology*, 84(3), 290-299

[61] Rusillo, M. T. C., & Arias, P. F. C. (2004). Gender differences in academic motivation of secondary school children. *Electronic Journal of Research in Educational Psychology and Psychopedagogy*. Retrieved August 1, 2011, from http://www.investigacion-psicopedagogica.org/revista/articulos/3/english/art_3_31.pdf

[62] Salmela-Aro, K., Tolvanen, T., & Nurmi, J. E. (2009). Achievement strategies during university studies predict early career burnout and engagement. *The Journal of Vocational Behavior,* 75(2), 162–172.

[63] Schmitt, D. P., Realo, A., Voracek, M., & Allik, J. (2009). Why can't a man be more like a woman? Sex differences in big five personality traits across 55 cultures. *Journal of Personality and Social Psychology*, 94(1), 168-182, doi: 10.1037/0022-3514.94.1.168

[64] Sharma, et al (2018) Effect of instructional strategy on academic achievement in relation to cognitive styles & Achievement Motivation at secondary stage. *International Journal of Academic Research and Development*, 3(2). 43-50

[65] Steinmayr, R., & Spinath, B. (2009). What explains boys' stronger confidence in their intelligence? *Sex Roles*, 61, 736–749.

[66] Timms, C., Graham, D., & Caltabiano, M. (2007). Perceptions of school administration trustworthiness, teacher burnout/job stress and trust: The contribution of morale and participative decision making. In I. Glendon, B. Myors, & B.M. Thompson (Eds.), *Advances in Organisational Psychology.* Brisbane: Australian Academic Press.

[67] Trautwein & Ludtke, (2007). Students' self-reported effort and time on homework in six school subjects: Between-students differences and within-student variation. *Journal of Educational Psychology*, 99(2), 432-444.

[68] Vecchione, M., Alessandri, G., & Marsicano, G. (2014). Academic motivation predicts educational attainment: Does gender make a difference?. *Learning and Individual Differences,* 32 (1), 124-131

[69] Vermeer, H. J., Boekaerts, M., & Seegers, G. (2000). Motivational and gender differences: Sixth-grade students' mathematical problem-solving behavior. *Journal of Educational Psychology*, 92(2), 308-315.

[70] Walsh, B., Kenny,M., Blustein, D., (2010). Achievement motivation among urban adolescents: Work hope, autonomy support, and achievement-related beliefs. *Journal of Vocational Behavior*. 77(2) 205-212

[71] Wigfield, A., & Eccles, J. S. (2002). *Development of achievement motivation*. San Diego, CA: Academic Press.

[72] Wigfield, A., & Cambria, J. (2010). Expectancy-value theory: Retrospective and prospective. In: S. Karabenick & T. Urdan (Eds.), *Advances in motivation and achievement. The next decade of research on motivation*, 16. New York: Taylor Francis Group.

[73] Wilkins, N. J. & Kuperminc, G. P. (2010). Why try? Achievement motivation and perceived academic climate among Latino youth. *Journal of Early Adolescence, 30*(2), 246-276.

[74] Yeung, A. S. & McInerney, D. M. (2005). Students' school motivation and aspiration over high school years. *Educational Psychology*, 25(5), 537-554

AUTHOR

Solomon Faakye, BA LLB LLM MPHIL, Legal Section, University of Cape Coast. solomonfaakye@gmail.com