Impact of Efficiency of Classroom Management on Reducing High School Students’ Level of Stress in the Kumasi Metropolis in Ghana

Author’s Details:
Bonah Emmanuel Obeng 1, Wang Yanhong 1, Joshua Agyekum 1
1 College of Education, Huzhou University, China
Email: toolzemmanuel@gmail.com, wangyanhong@zjhu.edu.cn, joshuaagyekum21@gmail.com

Abstract
The main purpose of the study was to investigate the impact of classroom management on reducing high school students’ level of stress in the Kumasi Metropolis. Specifically, the study sought to determine the perceived stress level of senior high school students and how teacher classroom management positively influences students stress level. The descriptive survey design was adopted for the study where standardized closed-ended questionnaire was adopted to collect data from 500 students and 300 teachers in senior high schools in the Kumasi Metropolis. The study adopted the Cross-tabulation to analyze students’ level of stress according to the gender and Structural Equation Modeling to ascertain the positive influence of teacher classroom management on students perceived stress level. The study found that majority of senior high school students are highly stressed with majority of female’s students being highly stressed out. The Study further found that teacher classroom management positively significantly affects high school students perceived stress level. This implies that teachers are supposed to reform their teaching and learning strategies, how they discipline students and handle issues in class personally. The study’s findings will be beneficial to high school teachers and school heads to become aware of how they can possibly help highly stressed students in the classroom. Further studies can be conducted on the topic by involving a larger sample in order to generalize the findings of the study to a large population which was a limitation for this study.

Keywords: Classroom management, Stress, High school students, Structural Equation Model, Ghana

1. Introduction
One of the significant characteristics of any good teacher is his/her ability to manage classroom management effectively, ensuring that teaching and learning go on smoothly and that the purpose of the instructional session is achieved (Marzano, Marzano, & Pickering 2003; Postholm 2013). Goss, Sonnemann, and Griffiths (2017) found in their study that good classroom management positively influences students’ academic performance. On the other hand, teachers’ failure to manage the classroom effectively can lead to poor teaching and learning outcomes such as not reaching their predefined goals for instructional sessions such as poor academic results of students, lack of understanding of subject matter, increase students stress level, and many more (Jones and Jones 2012). Research on effective teaching and learning in the classroom has revealed that classroom management is one of the prima concerns of many teachers on ensuring the welfare of students (McKee, 2001; O’Niell, & Stephenson, 2012). Classroom management refers to the activities such as classroom organization, discipline and rules setting, interactions during lesson and managing teaching and learning resources, preserving students’ attention, monitoring and supervision of classroom environment and ensuring orderliness (Marzano, Marzano, and Pickering 2003). From the early 1970’s to now several studies have been conducted on the essence of classroom management dating back to Skinner (1953), Thorndike (1919) and many major psychologists and educational researchers. Bassey (2012) view of classroom management as an amplified classroom engagement, lessening inappropriate and troublemaking behaviors of students, elevation of student obligation for academic work, and enhanced academic performance. This implies that effective classroom management practices such as discipline, control and the consequences become disciplinary approaches to classroom management. Thus, classroom management signifies how the teacher works, how the class works, how the teacher and students work together and how teaching and learning takes place (Charlie, 2006; Williams, 2008).
The management of classroom is deemed important since it can determine state of affairs of students cognitively, behavioral-wise and many other more. These behavioral problems include emotional problem of students such as high stress level. Chinaveh (2013) opined that stress appears to have affected many students over the pass number of years and therefore has received significant interest by many researchers on the significant effect of teachers’ classroom management practices and students’ level of stress. Studies such as (Cohen, Kessler, Gordon, 1995; Dougall & Baum, 2001) has revealed that there is level of relationship that exist between classroom management and students’ mental health, specifically, students stress level in class and if possible, reduce the stress to the minimum level if possible. correlate or predictor of psychological and health outcomes. Misra (2004) revealed that the level of stress students attains affects their academic (Womble, 2001). This implies that the failure of teachers’ in effectively managing the classroom cause increase in students’ stress level and in turns lead to struggle by students in learning, facing psychological problems and even increasing the drop-out rate of students. This is because the students face emotional problems and hence, do not have the right mindset to learn and to be able to use their mental faculties in teaching and learning in the classroom.

Teachers failure to manage students’ stress level in the classroom appear to result in irretrievable impairment to students that can affect their academic performance in class, confidence and self-esteem, and even health problems (Misra, 2004). It can be found that mental stress is considered one of the major threats that affects human life in general (Misra & Castillo, 2004; Womble, 2001). It is imperative to recognize that stress can be part of the normal life of students’ and their effects on students are always negative. Shahmohammad (2011) revealed that some students get inspired by a little amount of stress they face which pushes them to do them to do more beyond their capabilities. There have been associations found by researchers such as (Ryan & Twibell, 2000; Henderson, 2003; Hicks, & Miller, 2006; Dolbier, Smit & Steinhardt, 2007) that large percentages of students feel stunned that they are stressed because of teachers’ management of their learning in the classroom which leads to depression and hopeless that tends to affect their academic performance (Hicks & Miller, 2006; Kolene, Hartly &and Murdock, 1990; The National Alliance for mental Health, 2005; Ryan & Twibell, 2000; Veeser, & Blakemore, 2006). Dealing with students’ stress by teachers as part of teaching and learning is important. Teachers can educate students on the proper ways of managing their time so as not be stressed. Time management is not only important for managers and employees, but also necessary for all those who enrich their lives making money. The proper way of students in dealing with the stress is to plan and prepare ahead of time by managing their time effectively and detect behaviors to deal with stress is vital in this period (Barakat, 2001).

It is the major purpose of every teacher in a classroom to deliver useful information that will help in the proper upbringing of students and achievement of objective set for the class. One of the key primacies is to guarantee a safe and well-maintained and discipline classroom environment. The kind of discipline methods loads of subject matter taught in class, interactions and rapport teachers build with students can increase or reduce the level of stress students face. In the Ghanaian internal and external environment, many students face a lot of distractions, such as pressure from home, classmates, friends, and even social media that causes harm to their psychological and social mental well-being to a certain degree. Classroom management by teachers significantly influences students’ level of stress and hence the need for this study. Effective and efficient classroom management are aimed at creating conducive learning environment where students can learn with ease in terms of the psychological and emotional problems and perform better academically. So far, research into classroom management focused largely on its impact on students’ academic achievement and little on students’ stress level (Emmer & Stough, 2001). Hence, there is a need for research to address the impact of classroom management and students’ level of stress (Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008). This therefore necessitated the study into the impact of classroom management on reducing high school students’ level of stress.

1.1 Purpose of the Study and Hypothesis Formulation
This study’s main purpose was to investigate the impact of classroom management on reducing high school students’ level of stress in the Kumasi Metropolis. To accomplish the main objective, the study specifically sought to test three main research hypotheses.

1.2 Research Hypothesis

1. **RQ1**: What is the perceived level of Stress of high school students in the Kumasi Metropolis.
2. **RH1**: Teachers’ classroom management positively influences high school students’ level of stress.
3. 

1.3 Significance of the Study

The findings of this study will be of benefit to literature, teachers, students. This study will be significant as it will yield information that will help a significant number of teachers and students and educational stakeholders such as the Ghana Ministry of Education, teacher and students education researchers to establish the extent to which teachers’ effective classroom management influence students’ level of stress in the high school level in Kumasi Metropolis and even the whole Ghana.

The study’s findings will help teachers in becoming aware of the role they play in either increasing or reducing high school students’ level of stress and how possible best they can help students with such problems. Likewise, students will be informed from the findings of this study on the general stress level of students at their same level of study and how the conformity to guidelines and principles by teachers can help reduce stress to the minimum level as possible.

The Ghanaian Ministry of Education and the curriculum developers will use the recommendations and findings of this study in absorbing classroom management skills teachers could use in reducing students stress level as part of the objective to be achieved for each and every semester. It will create awareness among teachers and parent on the need to always establish a conducive learning environment for improved academic performance among children.

2. Literature Review

3. Theoretical Underpinning

The study was be guided by the theory of behaviorism and constructivism. This theory was propounded by Skinner and Watson. Skinner (1974) revealed that behavior of students and any individual is something that can be determined and also managed to be better. Behaviorist theorists have echoed that behavior can be observed and measured and can affect students’ performance and development within and outside the classroom and hence the need for research studies into such areas (Bush, 2006). Constructivism theory propounded by Piaget and Vygotsky well-defined the theory of constructivism as one which student are assisted in learning than being taught what to learn by achieving understand at various phases. Constructivist however, views learning as students’ quest for the meaning of learning than just understanding or comprehending anything in class (Rummer, 2008). These theorists believe that it is the responsibility of the learners to acquire knowledge for themselves by striving to experience learning themselves so that it becomes part of them and useful to them in real life issues such as overcoming stress levels or many other problems of life. Research have revealed that provision of the right kind of learning environment can influence students’ cognitive, affective and behavioral domains of learning. In the view of (Hardesty, 2018), the theory of behaviorism is ineffective in the classroom because of students are trained to accept a reward in the form of good academic results and fulfill the requirement of teachers as an alternative of training students on how they can learn and practicalized those things in the real world such as overcoming their own problems, manage their life.

One can say that the behaviorist theory supports the reward and punishment system (a teacher-centered approach) lean towards favoring teacher as a substitute of fulfilling the needs of the students and which is unfair to students. Research such as (Alteneji, 2019) advocates for student-centered system which plays attentions on satisfying the needs of the students. Carter (2010) ignited that there appears to be a positive transformation in students’ cognitive learning such as their critical thinking, enhanced originality, math skills, self-esteem, and students’ talents. The study further found a lessening in students dropping out rate, stress level, increased
attendance and less severe behavior. A teacher who practices constructivism create learning environment where
students become enlightened, interacts, revitalize and immersive. Maor (1999) points out that in constructive
classroom environment the teacher is regarded the coordinator of learning and hence, the learning they create
for students if vital for student’s success. Schwier & Cey (2001) emphasized that teachers should develop
opportunities for peer-support that enables students’ engagement which inspires development of knowledge
development and conduits alterations of knowledge levels in classroom environment. The constructivist theory
unsurpassed smears for forming a positive learning environment created by teachers which can probably
influence students in creating a competent classroom management such as reducing students’ stress level.

2.1 Classroom management
Classroom management is an issue of great concern to many teachers in aspect of nurturing students to
become better in their academic achievement and even their economic and social well-being (Okutam, 2005).
Classroom management can be defined as activities performed by teachers in creating teaching and learning
environment that provides support for succeeding in the academic ladder and also their social and behavioral
well-being such as their stress level (Evertson & Weinstein, 2006). It has become high relevance for teachers to
be conversant with good classroom management techniques that match lesson objectives, classroom activities,
and helping students’ outside the classroom and also is solving their own problems (Emmer & Stough, 2001).
Researchers such as (Marzano, 2008; Wang, Haertel &Walberg, 1993) have identified proper means through
which teachers can ensures that classroom interactions help in predicting students’ learning and in identifying
students’ weaknesses and strengths so that solutions to students’ problems such as stress level can be solved at
the onset without possibly affecting them. Wang et al. (1993) and Martin, Schafer, McClowry, Emmer,
Brekelmans, Mainhard, and Wubbels (2016) echoed the efficiency of classroom management practices by a
teacher affect students’ discipline level.

An analysis of studies for the past five decades by Cai, Perry, Wong, & Wang (2009) on classroom
management research acknowledged classroom management as the utmost significant aspect of effective
teaching and learning. Pandey (2006) held that classroom management is not a gift conferred upon all teachers.
It appears that some teachers do better in managing classroom, than others. Some people alluded classroom
management as one of the skills of an effective and good teacher. Classroom management is regarded a skill
that teachers can be acquired like any other profession to achieve proficiency in the proper upbringing of
students and helping them to solve them psychological, behavioral and emotional problem such as overcoming
stress level. Abel (2011) suggested that classroom management requires specific management skills such as
planning, organizing, directing and supervising, communicating to students and many more. This implies that
teachers need to become creative, committed, willing, flexible, contingent thinkers to help students go through
learning in the proper distraction-free and problem-solving environment and aptitude for teamwork (Abel,
2011).

It has been established in literature of the relationship that exist between poorly managed classrooms
and students’ disruptive behaviors such as sleeping in class, truancy, eating in class, increased stress and
threatening of teachers and even their fellows in class (Ekere, 2006). In a study by Effiong (2007), he suggested
that teachers could deal with students’ disruptive behaviors in the classroom by effectively managing
management so that effective learning can take place in a non-stress environment. The ability of teachers
successfully reduce disruptive behaviors in the classroom would increase students’ academic achievement and
possibly bring students’ level to the minimum level. In line with the study of Obot (2010) on the effect of
instructional supervision on students learning, it was established that teachers should closely observe students in
their daily engagement with them asking questions using verbal and non-verbal cues and methods to ensure that
students are paying undivided attention. Also making students put their trust in them so that student learn lesson
and experiences shared than simple facts and that they can handle problems they are battled with in life.
Wubbels, Brekelmans, den Brok, & van Tartwijk (2006) investigated how the relationship between students and
teachers in terms of classroom management. It was revealed that specific teaching styles were vital for student
learning outcomes; for instance, authoritative or directive teacher behavior leads to higher cognitive attainment
for students (den Brok, Brekelmans, & Wubbels, 2004), on the other hand, higher-cooperative teacher behavior leads to higher student motivation (den Brok, Fisher, & Scott, 2005).

2.2 Stress in the Classroom

Stress in the classroom for both students and teachers has become part of day-to-day life that influences teaching and learning. In the daily lives of human, we are all disclosed with circumstances and events in the classroom that leads to an increase in students and teachers’ level of stress. The indicators of stress in the society such as increase crime levels and mental illness are also evident in the school setting. Although small levels of stress could have a favorable influence on morale and innovation, there seems to be an adverse and crippling consequence of excessive pressure (Selye, 1974, as cited in Wilson, 2002). Sadly, teachers in the classroom face much growing emphasis than is advantageous. Kyriacou describes teacher stress as “the existence of undesirable, ill feelings by teachers, including resentment, fear, nervousness, disappointment or despair, arising from certain dimension of the teaching work” (Kyriacou, 2011, p. 28). For example, while public speaking can be viewed as stressful for some students and teachers, it can be soothing for others. For students and teachers, constant stress poses a particular dilemma since it jeopardizes the classroom instruction. Stress not only has a detrimental effect on the health of a person, and it also appears to generate a significant degree of socio-psychological anxiety among groups. If the amount of stress among students becomes too heavy, it may lead to severe health and psychosocial issues. Any occurrence or condition that pressures or threatens an individual's capacity to adapt is referred to as stress (Lahey, 2004). In several ways, it is possible to describe the word “stress.” In particular, stress can be described by an average person in terms of impact, stress, adverse external factors or a negative attachment (Ogden, 2004). The form of stress and the spectrum of stress is, in reality, very complicated and very multifaceted. Stress is an irregularity in behaviour, personality, expression of frustration, inhibition or physiological changes in social beings in the performance of everyday daily routine. Stress is an intricate idea. That could be routine stress at household, at class, and at job that could have been started quite personally, and they could generate massive burden collectively. In various individuals, various factors trigger stress. It is also a part of every student daily life. It is indeed a reality for millions of every other student. Multiple forms of learning and its varied requirements generate tension from almost the beginning until the student life. The life of a student is exposed to various forms of stress factors, including the burden of good academics, an unpredictable outlook and the challenges proposed for incorporation into system. Every classroom or school has a typical stressful spectrum. It is essential to finish assignments, discover different knowledge and apply different skills to new issues. It is the unacceptable degree of tension which has the ability to upend the academic system's credibility. Stress throughout school context emanates from inside the framework of learning and even from the origins of learning that participants carry to school with them.

These learners reported psychological, mental, physiological and parental issues that could affect their capacity to study and overall academic success (Fish & Nies, 1996). Stress prohibits individuals from acting cooperatively or from cultivating their specific talents to concentrate and learn things. The physiological burden which is a reality other than school is also brought in by pupils, instructors, and other school staff. For instance, because his or her parent's marriage issues, a child could be under a huge amount of pressure at homes. Under such situations, the child is adversely impacted by the family dynamic, performs various in school unpredictably, and may have a detrimental impact on others’ conduct. Accumulating stress induces anger, anxiety and depression, and may contribute to behavioral problems of attention loss, drug abuse, deviant traits, or even aggression. In intellectual world and in the culture, stress is becoming an essential feature. And it has become prevalent among students and could be handled through effective coping strategies since, if is not controlled, stress within educational institutions could get both adverse effects. Stress skill is the effort to sustain and monitor when outrageous requests are made by circumstances, individuals and occurrences. By following distinct tactics, tension in learners can be tracked. The irregular or irregular behavior of learners must be reviewed and controlled. In order to eliminate the degree of impairment of the learners, effective steps must be taken. This study assesses all these variables, manifestations of stress, and also recommends effective solutions to fix the issues.
There are several possible sources of stress within classroom and school environments: instructor attitudes, structure of the classroom, curriculum emphasis, student relationships, program methodology, sense of discipline, and participation of parent-citizens. Different factors of temperament also impact the responses of people to possible stressors. Some individuals are actually not disturbed about conditions that others consider stressful (Glavin et al, 1991). For various causes, tension exists in learning disciplines. Studies have discovered a variety of stressors in educational institutions, such as multiple tasks, rivalry with other students, setbacks, bad relationships with some other classmates, families or internal problems (Fairbrother & Warn, 2003).

The overpopulated classrooms, the class structure and insufficient funding for school study are administrative causes of stress (Awino & Agolla, 2008; Erkutlu & Chafra 2006). Layout problems, the homework workload, the behavior of educators towards learners, a lack of spare time, and a fear of testing were main stressors. In a paper presented in Brazil, throughout general course events, most groups demonstrated low levels of stress. A time constraint for recreation, friends, and social activities were their principal stressor. Professional preparation, professional relations, and time management were secondary stressors. It is important to consider and resolve the issue of stress while studying in order to support the physically and psychologically well-being of learners. There can be adverse physiological, emotional, or even religious health effects for learners subjected to constant and prolonged stress. To grow from school and classroom behavior is normal for stress. That being said, undue stress which permeates the school atmosphere is detrimental not just to learners and lecturers, but also to the entire society. It is worth noting that much of the stress that learners encounter can be seen as achieving accurate forecast, regardless of the source. Often not, tension is just the same as anxiety. In significant outcomes, stress may be encountered as well as in the detrimental. Stress that the feeling of learners as they begin examinations for which they have studied is very distinct from the stress experienced by learners who’ve not given their time to learn. Stress can be a positive factor in our existence if managed appropriately. "Increased stress boosts efficiency reach a point, during which conditions progressively worse," said Paul J. Rosch, M.D. (2007), and the founder of the American Stress Institute. Constructive use of stress relies on knowing where boundary will be between stress as just an activator of success and stress as a serious obstacle. Although stress is sometimes addressed in detrimental dimensions, a safe or reasonable amount of stress encourages one to speak, acquire new skills, accomplish things and reach one's potential. Stress is not only aspect of students, but also part of everyday life; it is a valuable life skill to understand how and when to predict, identify, and handle stress effectively, whereas stress can contribute to mental, physiological, and psychosocial factors.

3.0 Research Methodology

3.1 Conceptual Model

The study designed a conceptual model to govern the study based upon the aforementioned wide-ranging review of related literature. The conceptual framework for the study focused on ascertaining the impact of efficiency of classroom management on reducing high school students’ level of stress in the Kumasi Metropolis of Ghana. The model estimated the perceived level of stress of students and its causes and further established how the classroom management influences the perceived level of stress influences of high school students. Figure 1 showed the pictorial representation of the aforesaid.
3.1 Research design

The study adopted the quantitative approach using descriptive survey design to investigate the impact of classroom management on reducing students stress level among high schools within the Kumasi Metropolis. The study adopted descriptive survey design because it makes it easier for researchers to collect vast information from large number of respondents at a quick response time and inexpensively. Researchers such as (Aborisade, 1997; Osuala, 2000) have echoed the essence of the descriptive research design. Findings of their studies revealed that descriptive research design helps researches to report issues under consideration per the responses provided by respondents without necessarily having be involved in explanation of phenomenon or being directly involved in the responses provided.

3.2 Population

For the purpose of this study, the accessible population of the study therefore comprised all students (First year to third year) and respective teachers in selected six Senior High Schools in the Kumasi Metropolis. Table 1 stipulates a description of the students in the selected schools.

<table>
<thead>
<tr>
<th>Table 1: Population Distribution of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of School</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Prempeh College</td>
</tr>
<tr>
<td>Kumasi Anglican SHS</td>
</tr>
<tr>
<td>Opoku Ware SHS</td>
</tr>
<tr>
<td>Kumasi Girls SHS</td>
</tr>
<tr>
<td>Yaa Asantewah Girls SHS</td>
</tr>
<tr>
<td>Kumasi Academy</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

3.3 Data Collection Instrument
The study adopted two standardized questionnaires scales to measure efficiency of classroom management practices on students’ stress level. The two set of standardized scales were designed as one complete questionnaire to collect information from the respondents. A questionnaire, according to Creswell (2002), is a form used in a survey design that participants in a study complete and return to the researcher. The author further stated that, participants mark choices to questions and supply basic personal or demographic information. Best and Khan (1993) explain that the questionnaire may serve as a most appropriate and useful data gathering device in a research project if properly constructed and administered because it has a wider coverage. All the items in the questionnaire will be closed-ended items. The first set of questionnaires was the perceive stress scale will be used to measure the stress level of students. The first section of the questionnaire will elicit information from students on their demographic variables such as gender, name of school, school taught and class level. The second section will collect information on their level of stress. Ten items were designed by Cohen (1988) on perceived stress level on a Likert scale (0= Never, 1= Almost never, 2= Sometimes 3= Fairly often and 4= Very often). Students will indicate in each case, how often you felt or thought a certain way. The second set of questionnaires that will be used to collect information from teacher respondents is the standardized Classroom Management questionnaire (CMQ) by Díaz, González, Jara-Ramírez & Muñoz-Parra (2017). The purpose of this questionnaire will be to examine classroom management practices in three different dimensions: Discipline, Teaching and Learning, and Personal on a four-point Likert scale (1= Rarely, 2= Sometimes 3= Often and 4= Usually). The first part of the questionnaire will collect information on teacher’s personal information such as age, gender, level of qualification, years of experience and name of school. The second part collect information on discipline dimension followed by teaching and learning dimension for second section, and personal dimension on the third section.

3.4 Perceived Stress Scale (PSS)

The PSS is a self-reported scale used to measure the global level of perceived stress (Cohen, 1988). This scale includes two factors (Golden-Kreutz et al., 2004; Roberti et al., 2006; Öräci and Demir, 2009; Barbosa-Leiker et al., 2013): Factor 1 (Perceived Helplessness) is made of negatively phrased items (i.e., items 1, 2, 3, 6, 9, and 10; e.g., “In the last month, how often have you felt nervous and stressed”); and Factor 2 (Perceived Self-Efficacy) is made of positively phrased items (i.e., items 4, 5, 7, and 8; e.g., “In the last month, how often have you felt that things were going your way”). The 10 items of the PSS that will be used in this study were has shown high internal consistency and associations with negative mental health such as anxiety and depression in Chinese adults (Chu and Kao, 2005; Chu, 2010). Furthermore, words and expressions will be lightly modified to suit our sample. Particularly, to ensure the accuracy and readability of each item, five junior high school students will be first asked to answer the revised scale to indicate the readability and suitability of each item. Students participants will be required to rate how often they felt a certain way over the past month on a five-point Likert scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always). Scores for positively phrased items were reversed to obtain the total score and subscale score for Factor 2 (Perceived Self-Efficacy). The total score of the PSS-10 ranged from 10 to 50, and a higher score indicated a higher level of perceived stress. Previous studies have suggested that the PSS-10 shows adequate internal consistency, test–retest reliability, and validity across different populations (Lee, 2012).

3.5 Data Processing and Analysis

The field data will be collated, sifted through and edited in order to address questions and hypothesis that have been answered partially or not answered. After editing, the open-ended questions will be coded (i.e., the assignment of numbers or codes to responses to make them computer readable). After editing and coding, the data will be entered into the computer using the Statistical package for the Social Sciences (SPSS) software version 25 and AMOS software version 15. The data was then analysed and presented in frequencies and percentages and mean and standard deviations. Descriptive statistics (percentages, frequencies, means) and Multivariate inferential statistics such as Confirmatory Factor Analysis were adopted for analysing and reporting the research hypothesis that governed the study.
4. Sample Distribution of Respondents

The researcher used 500 students out of the accessible population of 3840 students for the study. The researcher chose to involve 500 accounting students in the study based upon the Table of size determination designed by Krejcie and Morgan (1970). According to this table it is appropriate to use a sample size of 351 from a population of 4000. Hence, the researcher’s decision to use 500 by increasing the number of respondents. Also, from a teacher’s population of 1340, 300 will also be involved in the study. The study made use of proportionate stratified sampling procedures to select students for each stratum(school).

Again, after getting the sample for each stratum, the simple random sampling technique is adopted to randomly select respondents for each stratum. The use of simple random sampling techniques gives all respondents equal chances of being selected for study. The study adopted the lottery method type of simple random sampling technique to select students from the various administrations of the schools.

This section dealt with the information collected on the background of both teachers’ and students’ respondents. The features of the respondents discussed in this section include the gender and age of students. Table 2 presents the background information of the respondents.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub-scale</th>
<th>Teachers Frequency (%)</th>
<th>Students Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>321(64.2)</td>
<td>159(53)</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>179(35.8)</td>
<td>141(47)</td>
</tr>
<tr>
<td>Age of students</td>
<td>Below 15 years</td>
<td>-</td>
<td>155(51.7)</td>
</tr>
<tr>
<td></td>
<td>16-20 years</td>
<td>-</td>
<td>140(46.7)</td>
</tr>
<tr>
<td></td>
<td>Above 21 years</td>
<td>-</td>
<td>5(1.6)</td>
</tr>
<tr>
<td>Teaching Experience</td>
<td>1-5 years</td>
<td>270(54)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
<td>135(27)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Above 11 years</td>
<td>95(19)</td>
<td>-</td>
</tr>
<tr>
<td>Teachers’ Level of Qualification</td>
<td>Bachelors’ degree</td>
<td>345(69)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Postgraduate degree</td>
<td>155(31)</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2 reveals the background information of the Senior High School teachers and students in the Kumasi Metropolis of Ghana. Information from Table 3 revealed that (321) 64.2% of the teachers involved in the study were males while (179)35.8 % were females. Regarding students’ respondents, (159) 53% were also males while (141) 47% were females. This proves that more males were involved in the study than female counterparts, as reflected in both male and female teachers and students’ partiality in the Ghanaian schooling system. Again, Table 3 disclosed that majority of the students’ respondents (155) 51.7% were below 15 years. This was followed by (140)46.7% students having ages between 16-20 years. A small number of the students’ respondents (5) 1.6% were above the age of 21 years. This indicates that the students were old enough to provide information on their perceived stress level. On the teachers’ level of experience, majority (270) 54% of the teachers were novice teacher which meant that they had taught for a period of 1-5 years and hence new to the teaching profession. This was followed respectively by teachers’ respondent (135) 27% and (95) 19% who had teaching experience of 6-10 years and above 11 years. Majority of the teachers (345) 69% possessed bachelor’s degree while their counterparts (155) 31% also possessed post graduate teaching certificates. This hinges that the teachers were all fully qualified to hold the mantle as teachers and hence has gone through courses that trained them in terms of classroom management and hence, can provide adequate information on the effectiveness of classroom management of students’ perceived stress level.
4 Empirical Results and Discussions of the Study

This section reports and discusses the data collected from both the teachers’ and students’ respondents in order to tackle and address the formulated research questions and hypothesis that governed the study.

**Research Question One; What is the perceived level of Stress of high school students in the Kumasi Metropolis?**

Stress in classroom can have detrimental repercussions on students’ cognitive, affective and psychomotor domains of learning and hence will make students ineffective in achieving the predetermined objectives set by teachers for students. Therefore, issues related to stress are not to be taken on a lighter note. Research question one sought to investigate the extent of stress level of high school students in order to understand the roles that teachers can play in order to help troubled students who are facing high stress levels in the classroom. Table 3 summarizes the level of stress of students in a cross tabulation according to gender of students.

Table 3: Cross Tabulation Score of Students Stress Level

<table>
<thead>
<tr>
<th>Gender</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>34</td>
<td>31</td>
<td>37</td>
<td>42</td>
<td>15</td>
<td>159</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>26</td>
<td>46</td>
<td>30</td>
<td>30</td>
<td>141</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>57</td>
<td>83</td>
<td>72</td>
<td>45</td>
<td>300</td>
</tr>
</tbody>
</table>

Scale: 10 (Very Low Stress); 20 (Low Stress); 30 (Moderate Stress); 40 (High Stress); 50 (Very High Stress)

The responses obtained from senior high school students in Kumasi Metropolis of Ghana were categorized into five groups following the norms of the scale prescribed by other researchers such as (Golden-Kreutz et al., 2004; Roberti et al., 2006; Örücü and Demir, 2009; Barbosa-Leiker et al., 2013). The responses are grouped under either (10= very low stress level, 50 = very high stress level). Information from Table 4 suggested that level of stress of senior high school in terms of frequency and percentage and interpretation were provided to explain students perceived level.

From Table 3, it can be observed that 177 students had high average stress level score 40-50, followed by 83 students acquiring moderate stress score of 30 and 100 students having low level of stress in senior high school. For students with high stress score, majority (60) of them were females while 57 were males. This implies that females’ students in senior high are prone to being stress about in the classroom or outside the classroom. However, there appears to be not much difference between females and males’ students perceived stress level. On the flip side, majority (65) of the male students had low stress level score than their female (35) counterparts. This implies that males’ students in senior high school are less likely to be stressed out in the class or outside class because of the problems they face or issues that bothers them.

4.1 Structural Equation Model (Confirmatory Factor Analysis)

**Research Hypothesis One: Teachers’ classroom management positively influences high school students’ level of stress.**

The study adopted the Structural Equation Modeling (SEM) to estimate the effect of teachers’ classroom management practices on high school students stress level. Structural Equation Modeling is a multivariate statistical tool which uses series and complex statistical estimates by ascertaining the degree of relationship between one or more exogenous variables and one and more endogenous variables. The researcher chose this model because of its widespread application in various field and studies and its effectiveness (Arbuckle & Wothke, 1999; Joreskog & Sorbom, 1999). The SEM permits researchers to measure constructs of variables under consideration using observed(manifest) constructs and unobserved(latent) constructs. Table 4 provides the results of SEM.
### Table 4: Results of Structural Equation Modeling

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Items</th>
<th>Standardized Factor loading</th>
<th>t-value</th>
<th>Average Variance Extracted (AVE)</th>
<th>Composite Reliability (CR)</th>
<th>Cronbach’s Alpha Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCIPLINE DIMENSION (D)</td>
<td>D1</td>
<td>0.65</td>
<td>7.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D2</td>
<td>0.86</td>
<td>7.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D3</td>
<td>0.67</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D4</td>
<td>0.86</td>
<td>8.01</td>
<td>0.57</td>
<td>0.91</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>D5</td>
<td>0.67</td>
<td>8.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D6</td>
<td>0.72</td>
<td>7.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D7</td>
<td>0.66</td>
<td>8.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>D8</td>
<td>0.93</td>
<td>7.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEACHING AND LEARNING DIMENSION (TL)</td>
<td>TL12</td>
<td>0.87</td>
<td>7.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL2</td>
<td>0.63</td>
<td>7.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL3</td>
<td>0.85</td>
<td>7.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL4</td>
<td>0.68</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL5</td>
<td>0.86</td>
<td>7.12</td>
<td>0.63</td>
<td>0.91</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>TL6</td>
<td>0.67</td>
<td>7.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL7</td>
<td>0.80</td>
<td>6.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL8</td>
<td>0.89</td>
<td>7.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TL9</td>
<td>0.67</td>
<td>7.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSONAL DIMENSION (P)</td>
<td>P1</td>
<td>0.93</td>
<td>7.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P2</td>
<td>0.67</td>
<td>7.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P22</td>
<td>0.66</td>
<td>7.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P33</td>
<td>0.66</td>
<td>7.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P44</td>
<td>0.83</td>
<td>6.92</td>
<td>0.54</td>
<td>0.78</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>P5</td>
<td>0.62</td>
<td>7.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P6</td>
<td>0.72</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P7</td>
<td>0.64</td>
<td>7.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P8</td>
<td>0.68</td>
<td>7.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P9</td>
<td>0.56</td>
<td>6.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERCEIVED STRESS LEVEL (PSL)</td>
<td>PSL1</td>
<td>0.85</td>
<td>7.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL2</td>
<td>0.79</td>
<td>7.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL3</td>
<td>0.66</td>
<td>7.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL4</td>
<td>0.66</td>
<td>a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL5</td>
<td>0.64</td>
<td>7.85</td>
<td>0.53</td>
<td>0.89</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>PSL6</td>
<td>0.65</td>
<td>8.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL7</td>
<td>0.80</td>
<td>7.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL8</td>
<td>0.60</td>
<td>7.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL9</td>
<td>0.64</td>
<td>7.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSL10</td>
<td>0.96</td>
<td>7.22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***P-value < 0.001 (2-tailed)  

Information in Table 4 reveals that the study’s standardized factor loadings are all statistically significant at the 95% confidence interval with P-values less than 0.05 (P< 0.05) and T-values greater than 1.96 (t<sub>cal</sub> > t<sub>critical</sub>). Factor loadings of at least 0.60 are cogitated as reliable indicators or satisfactory items (Field, 2009; Chin et al., 2014; Hair et al., 2006). Standardized factor loadings presented in Table 4 are all greater than
the minimum threshold recommended indicating that our items load satisfactorily. The results of the analysis also denote the acceptance of the research hypothesis that there is a positive effect of classroom management of teachers on senior high school students stress level in Kumasi Metropolis in Ghana. This denotes that teachers’ attitude in the classroom such as how they discipline students, engages in teaching and learning and even how he/she personally resolves, and tackles issues positively affects students’ level of stress. Since majority of the students are highly stressed out as earlier pointed out, teachers are a great contributory factor of this student problem. The findings of the study are in connection with the findings of (stress (Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008; Misra, 200; Hicks & Miller, 2006; Kolene, Hartly &and Murdock, 1990; National Alliance for mental Health, 2005; Ryan & Twibell, 2000; Veeser & Blakemore, 2006) that teachers classroom management has a significant effect of students’ stress level leading to depression and hopelessness and in the long run tend to affect students’ academic performance. Studies aforementioned established the relationship between poorly managed classroom and students’ disruptive behavior as a results of high stress levels.

Table 5: Model Fitness

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables</th>
<th>Fitting Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>χ²/df</td>
</tr>
<tr>
<td>D</td>
<td>Individual Fitness</td>
<td>2.131</td>
</tr>
<tr>
<td>TL</td>
<td></td>
<td>2.421</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>2.084</td>
</tr>
<tr>
<td>PSL</td>
<td>Overall Fitness</td>
<td>1.689</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.788</td>
</tr>
</tbody>
</table>

According to (Ganiyu et al., 2020), model fitness can be defined as the degree to which the SEM is deemed appropriated for the data observed. Model fitness assessment is estimated in order to authenticate the hypothetical model by fitting the parameter. The study adopted some fitting indices in order to gauge the model fitness of the analysis done to estimate the effect of classroom management on students’ stress level. The indices adopted for the study includes Comparative Fit Index (CFI), Chi-square ratio (χ²-ratio), Goodness of Fit Index (GFI), Normed Fit Index (NFI), Root Mean Square Approximation Error (RMSEA), Standardized Root Mean Square Residual (SRMR). And Tucker-Lewis Index (TLI) (Hu & Bentler, 1995; Burnham & Anderson, 2002; Hoyle & Panter, 1995; Steiger, 2007; Wen et al., 2004; Kline, 2005). They established that the general criteria for judging the fitting indices are as follows: 1) When χ²/df < 3, it indicates a good model. 2) When CFI > 0.95, it means the model is a good fit, and when CFI > 0.90, it indicates an acceptable model fit. 3) TLI > 0.90 indicates an acceptable fit. 4) SRMR and RMSEA < 0.05, it indicates a satisfactory model fit and when SRMR and RMSEA < 0.08, it indicates an acceptable model-data fit. 5) Both GFI and AGFI are mandated to be greater than 0.85. The analysis of the study found model for the study both the individual and overall was acceptable and hence, the authenticates the findings of the study as indicated in Table 5.

5. Conclusions

The study concluded that high school students are perceived to be highly stressed. This implies that students are faced with difficulties within and outside the school environment. Students can be stressed as a result of fear of failing in the high target set by teachers for students to achieve in the classroom or personal problems they face in the home. Despite this, it is the responsibility of the teacher to ensure that students have a safe and conducive classroom environment that will enable them to be effective and less stressed out to learn. It can also be concluded that the strategies that teacher adopt in terms of disciplining students appear to affect students stress level. It might be as a result of the nature of punishment or reinforcement teachers adopt are not good enough to help students both in the long run or short run. The continuance of teachers’ use of such disciplinary measures can have detrimental effect on student’s stress level. Teacher classroom management practices during teaching and learning appears to affect students stress level. Teachers way of teaching students
can be problematic, or students are finding difficulty in understanding teachers and hence making their learning difficult. This can increase students stress level since they might be worried about failing in the class and will receive punishment. The rapport teacher creates in classroom can also cause stress increment among high school students. A good rapport between teachers and students can create a good relationship which might reduce students stress level.

Conflict of Interest
The authors declare no conflicts of interest regarding the publication of this paper.

Reference


xvi. Chinaveh, M. (2013). The Effectiveness of Multiple Stress Management Intervention on the Level of Stress, and Coping Responses Among Iranian Students. Procedia, 84, 593-600


Hardesty, L. (2018). Behaviorism doesn’t work in the classroom: The view of a pre-service teacher and mother [Online] Available at:https://eu.news-


