UNIVERSITY OF CAPE COAST

INFLUENCE OF ECONOMICS TEACHERS' PERSONALITY ON THEIR EFFECTIVENESS IN GHANAIAN SENIOR HIGH SCHOOLS

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BY

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This thesis is submitted to the Department of Business and Social Sciences Education of the Faculty of Humanities and Social Sciences Education, College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy in Economics Education.

AUGUST 2022

DECLARATION

Candidates' Declaration

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

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

Name: Emmanuel Quayson

Supervisor's Declaration

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

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

Name: Alhaji Prof. Mumuni Baba Yidana

ABSTRACT

The study aimed to investigate personality and economics teachers' effectiveness in Ghanaian Senior High Schools. The study was a quantitative study and adopted the cross-sectional survey design. In total, 600 students were selected for the study using the simple random technique while the census method was utilized to involve all 122 teachers in the selected schools. The 44-item Big-Five Inventory (BFI) and the New South Wales Quality Teaching Inventory (NSWQTI) were utilized to collect data for the study. Data was analysed using descriptive (frequencies, means, and standard deviations) and inferential (Multiple Linear Regression, Kruskal Wallis H Test and Mann Whitney U test) statistics. Findings showed that Economics teachers exhibit a high level of effectiveness both from students' and teachers' perspectives and the least and dominant Big-Five personality traits recorded among teachers were neuroticism and conscientiousness, respectively. Also, only the openness dimension had a statistically significant influence on teacher effectiveness, yet, three of the Big-Five personality dimensions (openness, conscientiousness, and extraversion) were positively correlated with Economics teachers' effectiveness, whereas the two others (agreeableness and neuroticism) were negatively correlated. Lastly, there was a significant difference in economics teachers' effectiveness based on their teaching experience and gender. Based on the findings, it was suggested that Ghana Education Service should provide professional development opportunities focused on self-assessment techniques and incorporating student feedback into the evaluation process. Again, Ghana Education Service should provide professional development opportunities that focus on enhancing teachers' Openness to Experience.

KEY WORDS

Big five personality traits

Economics

Effective teaching

Students' rating

Teacher personality

Teachers' rating

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DEDICATION

To my loving Mother (Miss Dina Otobaw) and Grandmother (Mrs. Rebecca Henrietta Okraku)

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CHAPTER ONE

INTRODUCTION

Teaching is generally seen as both a science and an art. It is a science because there are generally acceptable and researched procedures and strategies that teachers can follow to transmit knowledge (Tamakloe, Amedahe & Atta, 2005). It is also an art because teachers constantly have to adapt and use strategies that may work for every learning experience and it varies from one teacher to the other (Tamakloe et al., 2005). It is very amazing how some teachers can promote students learning massively whereas others struggle to do so. Sometimes, teachers with similar qualifications teaching students with similar characteristics have wide differences in their ability to transform their students' learning.

So, the question is, what causes these disparities in aptitude? Many things come to mind, but the teacher's personality stands out as being of the utmost importance. According to research, "effective teachers tend to have personality traits, and teacher personality is an understudied area that may explain differences in teacher effectiveness among Senior High School (SHS) teachers" (Kim, Dar-Nimrod & MacCann, 2018, p. 17). Therefore, research on how teachers' personalities affect their efficiency in Ghanaian Senior High Schools is necessary.

Background to the Study

It is difficult to dispute the importance of education in the growth of every nation. As a result, several campaigns, and programmes, such as, MDGs, SDGs, and many others have been rolled out to ensure equal access to education around the globe. The world at large re-affirmed its vision for world education

in 2015, following the introduction of Sustainable Development Goal (SDG 4) which aims to offer universal access to high-quality education and encourage all people to pursue lifelong learning opportunities (United Nations, 2015). Given how important formal education is, the entire world considers it a public good and hence made several attempts to make education accessible to all. That is why most governments of today invest so much into (Anti Partey, 2014). United Nations Educational, Scientific and Cultural Organization [UNESCO] (2016), an organization empowered to lead world education, asserted that

> "Education is essential for peace, tolerance, human fulfilment, and sustainable development. We recognize education as the key to achieving full employment and poverty eradication. We will focus our efforts on access, equity and inclusion, quality and learning outcomes, within a lifelong learning approach" (p. 7).

Quality education seems to be the drive for education in the entire world today. Over the years, accessibility, equity, and inclusion have received attention in most writings on education, notwithstanding, quality education appears to have received more attention. This is because without quality education, accessibility, equity, and inclusion, which are the targets for world education, would be meaningless. In the context of education, the idea of quality has been used interchangeably with terms such as efficiency, effectiveness, and equity (Adams, 1993). Though a complex concept to define due to its multifaceted nature, United Nations International Children's Education Fund [UNICEF] (2000) defines quality education based on five important pillars: quality learners, learning environments, contents, processes, and outcomes. Under the quality learners, UNICEF argues for competent and effective teachers

if quality education must exist. The foregoing statement suggests that without effective and competent teachers, quality education cannot be achieved.

Teachers are essential to the teaching and learning process. According to Tamakloe, Amedahe, and Atta (2005), teachers are essential in helping pupils understand the subject. Teachers clearly have a significant role in ensuring that students receive the appropriate amount of knowledge, even though they are not the only factors in students' learning (Kwarteng & Nawaah, 2019). The curriculum is obviously geared at the student, who serves as the final consumer. The instructor, however, is responsible for making sure that the actual curriculum is represented in the classroom. That is, he or she is to ensure that the goals and objectives of curriculum planners are implemented judiciously without flaws. Undoubtedly, the teacher has a variety of responsibilities in the classroom (Anti Partey, 2014). The teacher acts as a pacesetter, a body of knowledge, a friend, a disciplinarian, a counsellor, among others. Effective teachers are saddled with the responsibility of meeting expectations, such as, ensuring educational goals and objectives are implemented judiciously without flaws.

Again, the teacher is still expected to create an atmosphere conducive enough to enable effective teaching-learning processes within the classroom. According to Anti Partey (2014), classrooms must serve as sanctuaries potent enough to allow students to discover novel concepts and ideas without being afraid of shame, criticism, or denunciation. Such atmospheres are able to build learners' capacity to engage in discovery learning because it has the potential to increase learners' self-esteem and motivation (Kim, Dar-Nimrod & MacCann, 2018). Teachers must provide an open and easy-going environment for pupils

to study in. The teacher is solely responsible for determining how the curriculum will be taught. Therefore, how productive learning can take place in the classroom is a function of the teacher's own level of effectiveness (Fenstermacher & Richardson, 2005).

Unfortunately, many people misconstrued the concept of teacher effectiveness. Many education stakeholders, particularly parents, eagerly agree that an excellent teacher ought to assist pupils in learning more than they expected (Acquah, 2009). Besides, students' achievement on standardized tests is generally used as a yardstick to measure teacher effectiveness by most people, according to Acquah (2009). However, such a simplistic view of teacher effectiveness has some major setbacks. This is because "the cause-and-effect relationship implied between teacher effectiveness and student attainment calls for the establishment of what part of effectiveness to attribute solely to the effort of the teacher" (Acquah, 2009, p. 20). Fenstermacher and Richardson (2005) also explain the misconception problem by indicating that "success at learning requires a combination of circumstances well beyond the actions of a teacher" (p. 191).

The concept of teacher effectiveness is broad and calls for careful and critical caution when it appears in academic discourse. Since the concept is broad, Acquah (2009), noted that diverse researchers have their unique way of perceiving the concept and use the term in varied contexts. Although teacher effectiveness lacks a clear-cut definition, the term has generally been used to explain the effect of classroom variables on students' performance, which include instructional strategies, instructor expectations, classroom structure, and utilization of classroom resources (Muijs, Campbell, Kyriakides & Robinson,

2005). Accordingly, the term is often thought of as "how best to bring about the desired pupil learning, by some educational activity" (Kyriacou, 1995, p. 9). The definitions above presuppose that for a teacher to be effective, he cannot play any passive role in the classroom because being effective connotes meeting several curricular needs such as, classroom management among others.

According to Kim, Dar-Nimrod and MacCann (2018), effectiveness level of teachers mainly depends on their personality characteristics. The assumption behind teacher personality research, as opined by McCrae and Costa (1985), is that the teacher as an individual has a vital role within the process of teaching and learning – a point which has well been established earlier. The interaction a teacher has with pupils, the methods they use, and the learning experiences they choose are all influenced by the teacher's personality (Kunter, Kleickmann, Klusmann & Richter, 2013a). When a teacher's personality helps establish and sustain a learning environment where students are happy and eager to study, that teacher has an admirable teaching personality (Bastian, McCord, Marks & Carpenter, 2017). Such a teacher may be referred to as effective. For example, a teacher with antagonistic autocratic tendencies is to be expected to replicate them in his interactions with pupils and the teaching strategies he employs (Duckworth & Yeager, 2015). Based on the foregoing example, such an antagonistic and autocratic teacher might not be effective in the classroom because of his personality.

There are various personality classification models, but the most widely accepted and commonly used model is the Big Five Personality Traits, which is also known as the Five-Factor Model (Fan & Zhang, 2014). The Big Five Personality Traits dimensions are extraversion, agreeableness, openness,

conscientiousness, and neuroticism. Each of these traits encompasses other facets. Researchers have actively studied personality in psychology (Duckworth & Seligman, 2005), education (Duckworth et al., 2015), and economics (Heckman, Humphries & Kautz, 2014) for the past 15 years and have systematically accumulated evidence in support of the Five-factor or Big Five model as having practical importance in the study of organizational outcomes such as effectiveness or job performance. Regardless of attempts to identify which personality dimension best predicts effectiveness, precision has eluded researchers and theorists (Pajak, 2012). As a result, the contributions of such dimensions as extraversion, openness, agreeableness conscientiousness, and neuroticism to effectiveness are not firmly established. However, a good teacher is expected to have less emotional lability (neuroticism), with prominence in extraversion, openness, agreeableness, and conscientiousness (Göncz, Göncz & Pekić, 2014).

According to Bastian et al. (2017), understanding one's own personality type as well as the personality of others appears to have the ability to improve relations among partners in any kind of organization and increase effectiveness. Recognizing one's personality has been a strategy utilized in a variety of businesses for a variety of goals, including predicting a worker's ability to perform specific tasks, establishing pleasant-sounding connections, determining the effectiveness of teams, and predicting future behaviour (Kim et al., 2018). Since teaching effectiveness is very crucial in the teaching and learning process, it appears ascertaining the level of Economics teachers' effectiveness regularly will serve much good for all stakeholders by providing up-to-date teacher effectiveness information. Such information could help put in place homemade

solutions to ensure improved and continuous students' learning. It is based on this background that this study was conducted to investigate the influence of personality on economics teachers' effectiveness in Ghanaian SHS.

Statement of the Problem

The effectiveness of Economics teachers in Ghanaian classrooms appears to be in disrepute. That is, all though, some studies found both pre-service teachers and in-service Economics teachers to be effective in teaching (Acquah, 2009; Lumadi & Acquah, 2014), such level of effectiveness appears not to reflect in students' learning as seen in the WAEC Chief Examiner's report. The reports from 2011 to 2021 indicate that questions on basic economics concepts are poorly answered by students which reflect their level of understanding and this is a matter of great concern. The following comments are constantly highlighted over the period:

1. "Students exhibited complete ignorance of concepts being tested"
2. "Many candidates exhibited a shallow understanding of some economics concepts" and
3. "Some candidates merely listed points even when the question demanded a discussion".

According to Chimezie (2020), Kyriacou (1995) and Shoalb and Hanif (2018), teachers are adjudged effective based on their ability to bring about the desired learning in students. However, the WAEC reports seem to suggest that Economics teachers struggle to elicit the desired learning in their students, which casts doubt on their effectiveness in the classroom.

Traditionally, effectiveness has been studied in relation to cognitive characteristics such as professional and academic qualifications (Jones, 2017).

Unfortunately, explanations offered by such characteristics on the distinction between ineffective and effective educators are insufficient (Rockoff, Jacob, Kane & Staiger, 2011). Consequently, researchers (Arif, Rashid, Tahira & Akhter, 2012; Brehini, 2018; Ezzi, 2019; Jones, 2017) for the past decade, have called for an evaluation of non-traditional or non-cognitive predictors of teacher effectiveness hoping to find useful variables capable of providing further explanations to teacher effectiveness differences. Personality is the topmost non-cognitive characteristic believed to predict teacher effectiveness (Bastian et al., 2017; Brehini, 2018; Fynn, 2020; Goncz, Gonca & Pekic, 2014; Hamilton, 2010; Kim, Dar-Nimrod and MacCann, 2018; Mete, 2020; Sandlin, 2019).

Studies on associations between personality and effectiveness have attracted a lot of interest (Gonca & Pekic, 2014; Hamilton, 2010; Kim, Dar-Nimrod and MacCann, 2018; Mete, 2020). However, teacher effectiveness studies in Ghana appear not to have adequately explored the personality of the teacher as a determinant of effectiveness. For instance, studies by Kwarteng and Donkor (2019) and Acquah (2009) on accounting and pre-service economics teachers' effectiveness respectively, did not focus on how their non-cognitive characteristics (such as personality) predicted their effectiveness. Moreover, both studies measured effectiveness from only students' perspectives neglecting the views of teachers on their effectiveness, which makes the findings questionable (Acquah, 2009).

Besides, Fynn (2020) who established a positive relationship between personality and teachers' job performance made use of Eysenck's personality trait dimensions rather than the five-factor model, which is cross-cultural (Schmitt, Allik, McCrae, & Benet-Martínez, 2007). Given the time-lapse in

studies establishing economics teachers' effectiveness, it is imperative to re-establish the level of economics teachers' effectiveness, especially in relation to their personality and the influence it has on their effectiveness. Based on this backdrop, the study sought to investigate the influence of economics teachers' personality on their effectiveness in Ghanaian SHS.

Purpose of the Study

The study aimed to investigate the influence of economics teachers' personality on their effectiveness in Ghanaian Senior High Schools. Specifically, the study sought to:

1. determine Economics teachers' level of effectiveness from both students' and teachers' perspectives.
2. identify the least and dominant big five Personality domains among Economics teachers.
3. assess the influence of the Big five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism) on teacher effectiveness.
4. ascertain whether there is a difference in Economics teachers' effectiveness based on their teaching experience
5. compare the effectiveness of Economics teachers based on their gender.

Research Questions

The study was guided by the following research questions:

1. What is Economics teachers' level of effectiveness from both students' and teachers' perspectives in the Central Region?
2. How do economics teachers measure on the big five Personality trait?

Research Hypothesis

The ensuing research hypothesis served as a guide for the study;

1. H_0: The Big five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism) have no statistically significant influence on Economics teachers' effectiveness.
2. H_0: There is no statistically significant difference in Economics teachers' effectiveness based on their teaching experience.
3. H_0: There is no statistically significant difference in Economics teachers' effectiveness based on their gender.

Significance of the Study

The results of this study would be applicable in a variety of contexts. First, it would provide information to key players including the Ghana Education Service (GES), School Administrators and Ministry of Education (MoE), on the extent to which a teacher's personality may affect his or her productivity (effectiveness). This new consciousness would equip School Administrators, especially, to know how to factor the teacher's personality when dealing with teacher behaviour and productivity issues. Secondly, the findings could begin a policy discussion regarding the selection process for recruiting new teachers into the teaching service, where a premium could be placed on the personality of teachers as done by educational ministries in other jurisdictions such as the UK. Thus, the finding will uncover the directional effects of the Big Five personality dimensions of economics teachers' effectiveness. This information would be very useful to GES for the selection and placement of economics teachers.

Thirdly, teachers may use the research's results as a point of reference. Economics teachers would be allowed to reflect on the role their personality plays in their teaching effectiveness. This would be possible because students whom they teach would be allowed to assess them and this will serve as genuine feedback to teachers. Finally, the study's results would add to the body of knowledge on teacher effectiveness and personality, and they would serve as a starting point for additional research on the subject at both the senior high school and other educational levels.

Delimitations

The study's geographic scope was restricted to Senior High Schools only in the Central Region. The rationale behind confining the study to the Central Region is because past effectiveness studies that evaluated effectiveness solely from the viewpoint of students and indicated that teachers were effective were carried out in this area.

Moreover, in terms of subject scope, the study was delimited to ascertaining only the extent to which the Big Five personality traits (openness**,** conscientiousness**,** extraversion agreeableness, neuroticism) of the teacher predict his or her effectiveness. Owning to the broad nature of teacher effectiveness, the term only applied to strategies of classroom instruction. Any other interpretation of effectiveness beyond the classroom did not form the focus of the study. The study used self-reported personality measures to assess the personality traits of the teachers. The study used both teachers and students' evaluations of teaching as the measure of teacher effectiveness. The study did not consider other factors that may affect teacher effectiveness, such as qualifications and workload.

Limitations

The researcher did his maximum best to ensure that factor that could affect the validity and reliability of the study were drastically reduced, since they are inevitable. First among such limitations arose from the sample drawn from the population. Since not every member of the student population took part in the study, the researcher might have missed certain trends of responses that could have given a different kind of result. Notwithstanding, the researcher selected sampling techniques that were capable of giving a non-biased result.

Secondly, the use of questionnaires limited the extent to which the respondents answered the questions. Since all questions were closed-ended, it did not allow for probing which could have given further information to enrich the study. However, the study adopted standardized questionnaires with high content and construct validity, hence it is believed that the data gathered was sufficient enough and represented respondents' opinions on the problem.

The last limitation is the problem of the generalizability of findings. It must be noted that this study's findings cannot be applied to all SHS in Ghana as well as all subject areas, though, the same situation may prevail in other subject areas. It could only be generalized to the Central Region and discussed in line with the subject Economics.

Organization of the Study

The entire study was composed of five main chapters. In Chapter One, which is devoted to the study's introduction, the background, problem statement, purpose, research questions, significance, limitations, and delimitation of the study are all discussed. The main focus of Chapter 2 was a review of related literature on personality and the efficacy of Economics

professors, which also highlighted the theoretical and conceptual foundations of the study and related empirical research on the research problem. In addition, Chapter 3 detailed the study's research methodology, which covered the research design, study area, population, sampling strategy, data collection tools, data collection processes, data processing, and data analysis. Chapter 4's primary subjects were the outcomes and a discussion of the research's conclusions. The summary of the study, drawing inferences from the data, and making suggestions in answer to the research questions were all covered in the last section (Chapter 5). In the same chapter, recommendations for additional research were offered.

CHAPTER TWO

LITERATURE REVIEW

The chapter is broadly divided into four sections comprising the theoretical review, conceptual review, empirical review, and conceptual framework. The Five-Factor or the Big-Five personality model and the New South Wales Quality Teaching (NSWQT) model were reviewed under the theoretical review. Besides, under the conceptual review, concepts such as, teaching, effective teaching methods of measuring teacher effectiveness, teacher personality were reviewed. The empirical review focused on previous studies that had a direct bearing on the research questions and hypotheses for the study. Lastly, A conceptual framework was developed to explain the relationship between teacher personality and effectiveness.

Theoretical Review

In this section of the literature study, the theoretical premise that served as the foundation for this investigation is reviewed. The New South Wales Quality Teaching (NSWQT) Model and the Five-Factor Model, sometimes known as the Big-Five personality model, were both reviewed in the study.

The Five-Factor Model (FFM) or Big Five Model (BFM)

McCrae and Costa (1985) created the Big Five Model (BFM), sometimes known as the Five-Factor Model (FFM). The Five-Factor Model's stance is that a person's personality characteristics can reliably predict their behavior. According to McCrae and John (as cited in McCrae & Costa, 2003), the five-factor model,

> "Implicitly adopts the basic tenets of a trait theory: that individuals can be characterized in terms of relatively enduring patterns of thoughts,

feelings, and actions; that traits can be quantitatively assessed; that they show some degree of cross-situational consistency" (p. 160).

Jones (2017) agrees with McCrae and John by opining that the Big Five is a crucial measure of personality traits and can be used to forecast behavioural variations in people in relation to social stimuli.

Researchers have noted that the FFM has some significant predictive potential. McCrae and Costa (1996) observed that the FFM can influence an individual's perceptions, moods, and behaviours. By extension of the idea, it presupposes that an individual's personality can predict outcomes of an organization. The model has been used in a variety of fields, including psychology, sociology, education and business, to understand individual differences in behaviour and outcomes (Han, 2021). Empirically, the dimensions of the FFM have been found to predict several organizational behavioural outcomes such as work performance, work satisfaction, leadership style, teacher effectiveness, teacher's attitude (Hamilton, 2010), the behaviour of people in organizations (Brehini, 2018).

The FFM has five dimensions. It is crucial to examine the individual elements in order to fully comprehend the model. These elements are listed below:

1. Openness or Openness to experience
2. Conscientiousness
3. Extraversion or extroversion
4. Agreeableness
5. Neuroticism

Openness – According to McCrae and Costa (1985) this trait reflects a person's willingness to experience new things, their imagination, and their appreciation for art and beauty. Wrenn (2005) proposed that persons with a high level of openness concentrate on training and improving their knowledge. Individuals with a high level of openness to experience are creative and artistic, with a wide range of interests. People who score low on openness trait, instead, are deemed closed to experience. This is because they prefer engaging in familiar activities or a routine. The meaning assigned to openness personality trait presupposes that in the classroom setting teachers who have a personality that is highly tilted toward openness to experience will continually seek to advance their skills for teaching. By so doing such a teacher may frequently be present at in-service training, symposiums, seminars, and many others.

Conscientiousness – The conscientiousness trait reflects a person's level of organization, responsibility, and dependability (McCrae and Costa, 1985). Conscientiousness relates to high performance in the work environment (DeYoung et al., 2010). Conscientious persons, according to DeYoung et al., exhibit traits such as organization, temperance, and self-will. Possessing conscientiousness is defined as the persistence with which one pursues his or her objectives (Denissen & Penke, 2008). In contrast, people who score low on conscientiousness are considered spontaneous. They are impulsive, careless, and disorganized, and they tend to procrastinate, fail to complete tasks or not fulfill clear life goals.

Extraversion or extroversion – According to McCrae and Costa (1985) extraversion trait reflects a person's level of sociability, assertiveness, and positive emotionality. Extraversion is a collection of constructive behaviours

that demonstrate the willingness to engage in social events that display leadership capabilities, charisma, and superiority to acquire advantages amid everyone else (DeYoung et al., 2010; Denissen & Penke, 2008). The most prevalent reward for Extroversion, according to DeYoung et al., was social prestige. Extroversion is defined as an excellent interpersonal interaction that is receptive to specific stimuli in an environment, according to Wright et al. (2006). Highly extroverted individuals tend to be sociable, outgoing, and assertive. Nevertheless, anybody who chooses to spend time independently would display low extraversion. Individuals who are low on extraversion are normally shy and reserved, preferring to hear others rather than communicate. They prefer seclusion and expend little effort in social settings. It might be exhausting to be the center of attention or to make small chats.

Agreeableness – Agreeableness trait reflects a person's level of compassion, cooperativeness, and trustworthiness (McCrae & Costa, 1985). Definitions of agreeableness have linked it to pleasant interpersonal friendliness, while others may have stressed maternal commitment in domestic intimacy as the cornerstone of this quality, according to Denissen and Penke (2008). As a result of the relationship to social praise, agreeableness is a significant element of extroversion. Individuals with opposing views on behaviour, such as approbation vs. condemnation, cooperation vs. competition, and trust vs. greed, can collaborate when they are agreeable (Denissen & Penke, 2008).

Neuroticism – McCrae and Costa (1985) claim that a person's level of emotional instability, anxiety, and moodiness is reflected in their neuroticism trait. A person's diverse capacities for managing their stress or suffering have in

fact been attributed to neuroticism (Denissen & Penke, 2008). According to Wright et al. (2006), neuroticism is a personality trait that frequently shows itself as a persistently low mood and unease as well as expressing negative environmental stimuli. People with high degrees of neuroticism are more likely to experience mood swings, unease, and restlessness. Individuals with low Neuroticism scores, according to Wrenn (2005), seem to be more inclined to reveal sentiments like tranquility, safety, calm, and stress resistance.

There are numerous other personality types, including Eysenck's personality Trait (EPT), Fundamental Interpersonal Relationship Orientation (FIRO), and Myers Briggs Type Indicator (MBTI). Each of them has a scientific basis for predicting behavioral inclinations (Jones, 2017). For instance, "the FIRO can predict leadership capacity and management qualities" Ahmetoglu, et al. (as cited in Jones, 2017), which is not the focus of the current study. It seems that much evidence to back the cross-cultural nature of the FFM which makes it convenient to be applied everywhere.

Jones (2017) pointed out that the FFM is better at predicting work performance than the Myers-Briggs Type Indicator or the Fundamental Interpersonal Relationship Orientation Assessment since it is more successful at identifying a career path. In order to better predict job performance and success, which are the study's main objectives, the researcher used either the FFM or BFM. As a result, the researcher used the FFM as the primary theoretical foundation to investigate how teacher personality affects efficacy. The FFM is the basis upon which teachers' personalities will be classified in this study. The goal of this study is to investigate the relationship between economics professors' personalities and their efficacy in Ghanaian Senior High Schools. Accordingly,

the openness, conscientiousness, extraversion, agreeableness, and neuroticism dimensions of the personality of Economics professors in this study were identified.

The New South Wales Quality Teaching (NSWQT) Model of Pedagogy

The New South Wales (NSW) Department of Education & Training created the New South Wales Quality Teaching (NSWQT) Model of Pedagogy in 2003. The model argues that pedagogy is the main focus of the teaching profession and hence thoroughly outlines the key components of effective pedagogy in actual classroom settings. The NSWQT Model describes the characteristics teachers need to possess in order to make classroom interactions effective. Hence, the model was built focusing on the assumption that students can learn considerable skills and concepts when provided with the necessary support and the enabling environment coupled with the right expectation that learners can succeed at what they learn (Kwarteng & Donkor, 2019). Kwarteng and Donkor (2019) further noted that the NSWQT Model may be utilized for various levels of schooling and every curriculum. Yeigh (2008) also noted that the model connects the effectiveness of the teacher's pedagogy to students' learning.

The NSWQT model puts quality pedagogy into three broad dimensions. These dimensions are Intellectual Quality (IQ), Quality Learning Environment (QLE), and Significance (SIG). According to Kwarteng and Donkor (2019), "the emphasis on providing intellectual quality, a quality learning environment and making the significance of learning explicit to students provides a valuable framework within which teachers can strive to deliver quality instruction" (p.

36). These three dimensions are further broken down into six (6) elements. An overview of the three dimensions is given in the ensuing paragraphs.

The Intellectual Quality dimension focuses on the quality of teaching and learning, including the depth of knowledge, the use of higher-order thinking skills, and the development of metacognition (NSW Department of Education & Training, 2003). Yeigh (2008) explains that the IQ dimension connects to instructional components that support highly cognitive, difficult, introspective, and generally more thoughtful student learning. The goal is to develop a profound grasp of significant, substantial concepts, abilities, and ideas. Here, knowledge is viewed as something that must be actively constructed, necessitating higher-order thinking on the part of learners as well as meaningful communication about what they are learning. Thus, IQ focuses more on strategies adopted by the teacher in the classroom in order to aid students in internalizing the core concepts, generalizations, principles as well as theories that are peculiar to the particular subject in question, in this case, Economics.

The Quality Learning Environment dimension focuses on the connection between teachers and students, including the development of positive relationships, the use of effective communication, and the creation of a supportive learning environment (NSW Department of Education & Training, 2003). The QLE component promotes pleasant classroom interactions, more equitable student outcomes, and supportive classroom settings as ways to improve learning outcomes (Yeigh, 2008). The QLE dimension suggests that there is a need for the teacher to promote and develop a classroom atmosphere that is supportive and conducive enough to promote a smooth teaching and learning interaction in the classroom.

The Significance dimension emphasizes on the relevance of teaching and learning to students' lives, including the use of real-world examples and the connection of learning to students' interests and experiences (NSW Department of Education & Training, 2003). By incorporating components that attempt to connect classroom learning to both the students' backgrounds and the wider, more varied world outside of school, the Significance domain links learning to students' growing feeling of individuality and purpose. In essence, this component is centred on pedagogy that aids in giving learners a sense of purpose and importance in their education. Emphasis is on a teaching approach that would make it possible for students to not only understand but also to be able to apply whatever they learn in the classroom to their immediate environment and the whole community at large (Kwarteng & Donkor, 2019).

The core components of the NSWQT model can be utilized as a framework for evaluating trainee-Economics instructors' efficacy (Acquah, 2014). In the same vein, Kwarteng and Donkor (2019) adopted the model to evaluate the effectiveness of substantive accounting teachers. Hence, the two pieces of evidence above make use of the NSWQT model and ideal for measuring on-the-job Economics teachers' effectiveness. Based on this, the researcher adopted the NSWQT model as a supporting model for studying the influence of teacher personality and economics teachers' effectiveness.

Conceptual Review

There was a review of several crucial concepts about the study's dependent and independent variables. These included the concept of teaching, teacher effectiveness, methods of measuring effective teaching, teacher personality, and the link between personality and teaching success.

The Concept of Teaching

Different academics have described the idea of teaching from a variety of angles. Hence, the meaning ascribed to teaching has evolved over the years. In the 1930s, teaching was defined by Morrison (1934, p. 14) as "an intimate contact between a more mature personality and a less mature one which designed to further the education of the latter". In the same year, Dewey (1934, p. 2) expressed the meaning of education in an equation form as "teaching is learning as selling is to buying". A few years later, Brubacher (1939) defined teaching as "an arrangement and manipulation of a situation in which there are gaps or obstructions which an individual will seek to overcome and from which he will learn in the course of doing so" (p. 5).

Generally, it appears as if teaching is just a one-way affair based on these early definitions of teaching. For instance, the definition of Morrison makes the learner appears as a 'tabular rasa' at the receiving end of the equation expected to accept knowledge hook-line-and-sinker. Such views of teachers made them appear as repositories of wisdom and gave little room for learning to contribute to their learning. in contemporary times, teachers are not seen as store-house for knowledge or wisdom. In the course of learning, they are regarded as mentors. Generally, definitions around the 1930s as provided above were focused on the transmission of knowledge from a more experienced person to the other but were not sensitive to how it was transferred.

The meaning of teaching gradually changed to be sensitive to the way knowledge is transferred in the 1960s and 1970s. Amidon (1967), for example, explained teaching to mean an interaction between instructor and student that mostly involves conversation in the classroom and takes place during

specifically defined tasks. According to Rajagopalan (2019), several other definitions by scholars such as Gage (1978) and Gagne and Glaser (1974) agreed to the definition of Amidon. According to Amidon, the core idea of those definitions can be summarized as, "teaching is a scientific process, and its major components are content, communication, and feedback. The teaching strategy has a positive effect on student learning" (p. 6). The idea of teaching being a process (especially, scientific), gave more structure to later definitions.

Additionally, the entire structure of teaching, as per Glaser's (1962) approach, is divided into four phases. The first step is to plan the lesson (which includes analyzing the material, identifying the students, and writing objectives). The second factor is how classes are structured, which reveals the methods for accomplishing the learning goals. The third level, which also incorporates content communication, entails finding effective teaching-learning approaches. The last one is managing teaching-learning, which focuses on evaluating the learning goals based on the performance of students and reporting back to teachers and students. In general terms, teaching goes beyond manipulation or just giving instructions. Teaching reflects the state of making several decisions in the process of transferring knowledge to a less knowledgeable person in a particular field of learning (Rajagopalan, 2019).

The claim of Glaser (1962) prompts a more contemporary interpretation of the idea of teaching. For instance, Calderhead (1995) (as cited in Rajagopalan, 2019), opined that

> "Teaching can be conceptualized as a form of problem-solving and decision-making which has many properties in common with the work of physicians. This conceptualization has led to a body of research that

has investigated the decision-making of teaching focusing in particular on the information about pupils that teachers use to make decisions and the way they tailor instruction to individual pupil needs" (p. 6).

In general, the activity of teaching intends to promote meaningful erudition using a pedagogically and ethically appropriate method. It requires a teacher, a student, material to be learned in the form of knowledge, facts, information, and skills; the students' conscious desire to study; and, ultimately, a technique favourable for students' independence of action and objectivity in thought.

The activity of teaching refers to what the teacher does to transfer information to the students. These include things like speaking, writing, exhibiting, evaluating, asking questions, listening, ordering, and explaining. Teaching adjudged complete or effective when the three major elements of teaching, which are subject matter, the learner, and the subject matter form a three-chord relationship (Rajagopalan, 2019). Thus, the teacher should be teaching the required subject matter to the learner and the learner should be able to understand what is being taught.

In contemporary times, two fundamental ways of conceptualizing teaching exist. These opposite views are; teaching as knowledge transmission and teaching as assisted knowledge creation. The former perceive teaching as an activity that is primarily centered on the teacher which is referred to as teacher-centered. Supporters of this proposition view teaching as the transmission of knowledge from a more experienced person to a less experienced (a novice). The latter perceive teaching as an activity whose focus is primarily directed towards helping the student with the necessary guidance,

support, and encouragement from the teacher. Learners are seen as actively involved in constructing their knowledge.

According to Arends (1991), teaching methods based purely on intuition, personal choice, or traditional knowledge are no longer sufficient, nor are instructors' friendliness and love for the students. This is due to the fact that modern educators are held to the same standards as those in other professions like law, medicine, and architecture for employing teaching strategies that have been proven to be effective. Teaching is complicated because it is both an art and a science (Marzano, 2017). In its highest nature teaching must be considered as both an art and science (Gage, (1978). Effective teachers are those who are grounded in the science of teaching and simultaneously conscious of applying practical facts in the classroom [Madeline Hunter (as stated in Ornstein & Lasley, 2000, p. 59)]. An important concept worth discussing after the concept of teaching is the concept of effective teaching. What makes a teacher effective? This concept is discussed below.

Concept of Effective Teaching

One educational variable that is of interest to all stakeholders of education is teacher effectiveness. Governments, parents, teachers, students, social activists, politicians, community leaders, and researchers alike appear to be fascinated by the extent to which success is chalked by the student in the school system. Over the years, the attention of researchers and stakeholders seems to have shifted from placing a quality teacher in the classroom to ascertaining whether the 'qualified' teacher is effective (Chimezie, 2020). Little, Geo, and Bell (2009) expressed the opinion that it has become more and more obvious that 'highly competent' teachers do not automatically guarantee

instruction that enhances students' learning. Due to the overarching nature of this concept, coupled with different value judgments by stakeholders, it is worth diving into what it stands for and its place in this study.

The concept of effective teaching appears to be broad due to the complex nature of teaching. There appear to be countless opinions on what constitutes effectiveness in the classroom and what characteristics effective teachers possess, however, there is a consensus that student learning serves as the benchmark for teachers' effectiveness (Chimezie, 2020; Shoalb & Hanif, 2018). That is, no matter the deviation in agreement regarding what constitutes effective teaching, the characteristics a teacher should possess, or the process through which evaluations are done, researchers agree that student learning is the prime focus of all definitions. According to a growing body of research, effective teachers are required to raise students' academic achievement. It is crucial to evaluate how academics have defined the concept of effective teaching across time.

The first definition worth studying is that given by Dunne and Wragg (1994) who viewed effective or good teachers as people who

> "are keen and enthusiastic, well organized, firm but fair, stimulating, know their stuff, and are interested in the welfare of their pupils. Few would attempt to defend the converse: that good teachers are unenthusiastic, boring, unfair, ignorant, and do not care about their pupils" (p.1).

The above definition lays a good background for discussions to proceed. It gives a vivid description of the characteristics of effective and ineffective teachers.

The thrust of the definition is that effective teachers must be masters of their respective subject matters of the chosen disciplines.

Furthermore, teacher effectiveness has been described as the effect of classroom variables on students' performance, including instructional strategies, instructor expectations, classroom structure, and utilization of classroom resources (Muijs, Campbell, Kyriakides & Robinson, 2005). Teaching effectiveness, in the view of Kyriacou (1995) relates to "how best to bring about the desired pupil learning, by some educational activity" (p. 9). A reflection on the above definitions connotes effective teaching as focusing on variables related to process which Kyriacou designates as those aspects of the behaviour of the instructor and students, as well as the learning task and activities that take place in the classroom that may have an impact on the learning activity's success.

Lumadi and Acquah (2014) noted that Kyriacou's explanations do not focus solely on desired learning, which is a common measure of effectiveness, but encompass the process variables of educational activities which largely determine the 'desired learning'. Again, Lumadi and Acquah observed that whatever learning outcome (such as observed behavioural change) or processes depend on some input variables which are used by the instructor to facilitate learning and teaching. It is therefore not surprising that earlier researchers like Dunne and Wragg (1994) had their definitions of effective teaching focused on the input variables (well organized, keen and enthusiastic, firm but fair, knowledge of the subject matter, stimulating, among others.). According to Lumadi and Acquah, "it is these input and process variables that make it

possible for a teacher to be effective in the execution of his or her duties" (p. 2853).

Little et al. (2009) asserted that the way effective teaching is defined determines how it is measured. According to research in the area of effectiveness, three main ways of thinking about effective teaching have been outlined. On one hand, Kyriacou (2009) identified these ways of viewing effective teaching as contextual, process, and product approaches or variables. Goe et al. (2008) on the other hand, identified these as input, process, and output or outcome approaches or variables. The meaning of the concepts from the two perspectives only differs in semantics.

The first, which is the input or contextual approach variable attempts to assess teaching effectiveness based on contextual teacher characteristics such as qualification, licensure, training, personality, age, social class, experience, pedagogical content knowledge among others. This way of evaluating teacher effectiveness seems to suggest that a teacher's effectiveness can be judged without having the opportunity to observe them teach (Lumadi & Acquah, 2014). This view assumes once entry qualifications are good, processes and outcomes will take care of themselves. However, it is not enough to judge effectiveness from only this perspective. It is good to see the teacher in action to confirm whether known characteristics can be effectively utilized in the classroom.

The 'processes' refer to classroom the instructor and students' interactions. Just as the name goes, the focus is on the 'how' of classroom interactions. It does not put a premium on the entry characteristics or the outcome. Rather, the focus is on the curriculum as enacted by the experiences

of the teacher and the pupils both in the classroom and the entire school environment. Lumadi and Acquah (2014) asserted that "if we are to assess teaching from just the input or output angle, certain things which might not have been used in the teaching and learning interaction could easily be presented as part of the teaching and learning endeavour because they are well noted to make teaching effective, but are not even employed by teachers" (p. 2). This will invariably grant a false impression of what transpires in the school. In contrast to outcome approach, assessors can know what exactly goes on in the classroom by focusing on the "process". This study focuses on this approach of assessing teacher effectiveness by adopting the New South Wales Quality Teaching Inventory (NSWQTI) to assess processes in the classroom.

Finally, the output or product approach focuses on variables such as influence on graduation rates, social-emotional wellbeing, engagement attitudes, student behaviour, and students' achievements (Acquah, 2012). Some studies limit teacher effectiveness to student outcomes (output or product). However, since there are other input factors, such as subject and pedagogical knowledge of teachers as well as other process factors such as classroom processes that contribute to a teacher's success, this study focuses more on input and process factors. Output factors are indirectly considered by finding out from students their satisfaction with the performance of the teacher. The belief is that when students are satisfied with their teachers' output in the classroom, they would be motivated to learn the things he or she teaches them in the classroom.

Owing to the multifaceted nature of the concept, effective teaching several models and theories have been developed to be able to explain the

concept contextually. For two key reasons, Goe et al. (2008) opined that it is a necessity to characterize teacher effectiveness more precisely:

> "First what is measured is a reflection of what is valued, and as a corollary, what is measured is valued. Definitions nominate and shape what needs to be measured…. when policy conversations concern the interactions between teachers and students, the focus shifts to classrooms and documenting effective interactions among teachers and their students…. In addition, different definitions lead to different policy solutions…. When classroom processes are discussed, particular practices or approaches to teaching become the focus" (p. 7)

In the present study, effectiveness is assessed based on the New South Wales conception of effective teaching. This conception of effective teaching is based on three pillars which have been discussed duly in the theoretical review. It asserts that effective teachers must exhibit competence in three basic areas namely, intellectual quality, quality learning environment, significance.

Methods of Evaluating Teacher Effectiveness

Several methods have been applied to evaluate the effectiveness (work performance) of teachers. According to Little et al. (2009) these several methods for measuring teacher effectiveness exist due to the broad nature of the concept of effective teaching. The methods include;

1. Teacher self-report of practice
2. Students' evaluations
3. Classroom observations
4. Value-added models
5. Teaching portfolios

6. Analysis of classroom artefacts

The first two methods of assessing teacher effectiveness would be focused on and expatiated for this study's sake.

Teacher self-report of practice

Self-reports of practice are very important in ensuring the effectiveness of teachers in curriculum implementation. Every teacher needs to reflect frequently on what goes on in his or her classroom to take necessary steps to ensure that specific instructional objectives**,** as well as the general aims of the school curriculum, are achieved. Such self-reflection of teaching serves as a basis for effective formative evaluation for remediation purposes. Besides, there is the need for every teacher to be satisfied and develop a certain measure of confidence in his or her practices. Thus, whether the self-assessment of effective teaching is initiated by the teacher or by educational administrators, its usefulness cannot be underestimated. Most formal teacher self-assessments are initiated by educational administrators or researchers and they take the form of interviews, surveys, or instructional logs (Little et al., 2009). Little et al. (2009) state that rating scales that aim to determine the extent to which particular activities are used or are in accordance with acceptable norms can be used for self-assessment. They might also appear as lists of plainly apparent actions and teaching strategies. For instance, as part of this study, teachers were asked to rate their own compliance with the New South Wales Quality Teaching Model's acceptable pedagogical requirements. Teachers may be asked to self-report how frequently they apply approved standards and procedures in the classroom.

This measure of assessing effective teaching has been found to have a lot of benefits. To begin with, a self-assessment of teaching affords teachers the

opportunity to reflect on their teaching to assess their strengths and weaknesses to foster improved performance on their part. Uhlenbeck, Verloop, and Beijaard (2012) claim that this measure may inspire instructors to keep learning and developing throughout their teaching careers since it includes reflection as a requirement for the assessment process. Self-assessment data may be utilized for formative evaluation and teacher self-reflection, according to Little et al. (2009), who added their voices to this by noting that they can tap into instructors' conflicts, cognitive processes, knowledge, and beliefs.

Self-assessment can also contribute meaningfully to the performance appraisal of teachers on the job. It can serve as a supplementary measure to external observations, students' ratings, and other measures to provide a more comprehensive and unbiased perception of teaching effectiveness. To this end, Smith and Tillema (1998) have identified nine ways by which self-assessment can be useful in the appraisal process, and especially in the perspective of this study, in the assessment of Economics teachers.

These benefits include: enhancing self-raters' dignity and self-respect; increasing employees' opinion of the impartiality of the rating process; mitigating individual biases by serving as a supplementary source of information; serving as a tool for increasing communication in the assessment process; drawing out discrepancies between self and supervisor perception of performance; minimizing halo effects; clarifying differences in opinion regarding performance requirements; increasing the possibility of acceptance of feedback as a result because it provides the opportunity for self-reflection, and increasing commitment to new intervention measures. Therefore, based on the immeasurable importance of self-report of practice, and for that matter, teacher

self-rating, the current study adopted the use of teacher self-rating as a method of evaluating teacher effectiveness by soliciting the opinions of Economics teachers on their effectiveness.

Students' evaluations of teacher effectiveness

One of the most investigated topics in higher learning, according to Ory (2001), include the use of students' ratings as a measure of teacher effectiveness or performance. This is because the issue is very important and noteworthy for all teaching and learning institutions. As made evident in the empirical review, this measure of assessing teacher effectiveness is a very popular one in higher institutions such as universities. This practice usually takes place after a course or a unit of instruction, where students are made to provide quality assurance units of institutions and other researchers with their perceptions of the teachers' practices in the classroom. Several tools may be used to assess effective teaching from the perspective of students. For instance, it may take the form of an interview or questionnaire.

The most popular tool usually employed is the students' questionnaire, which takes the form of a rating scale. The attributes of good teaching are outlined for students to indicate the ones the teacher adhered to in his or her teaching. For this study, a questionnaire was administered to elicit students' perception of Economics teachers' effectiveness. Granted the criterion is often used at higher levels of education, the investigator worked feverishly to reduce the number of questionnaire items so that SHS students could understand the constructs and assess Economics teachers adequately.

As previously said, one of the investigated topics in higher learning includes the use of student evaluations to evaluate instructor performance. The

best people to assess how effective, illuminating, rewarding, or valuable the classroom learning experience was, according to studies, are the learners themselves. According to Goe et al. (2008), as students are the ones who interact with teachers the most and who benefit most from their activities, students' impressions of teachers are an essential component in any teacher evaluation process. Researchers stress that given the frequency of student-instructor contacts, questionnaires or rating systems that students use to evaluate their teachers seem to yield useful data. According to other study, students may have more frequent interactions with teachers, which may lead to a more specialized perspective on and evaluation of their performance in the classroom (Peterson, Wahlquist, & Bone, 2000; Worrell & Kuterbach, 2001; Follman, 1992, 1995).

Although opinions about specific teacher characteristics may not be accurate indicators of a teacher's or a course's effectiveness, they are still valid measures of student satisfaction, and there is a wealth of research demonstrating the connection between effective teaching and student satisfaction (Theall & Franklin, 2001). Since these researches looked at the connection between student ratings and student learning, a complete review of student ratings of teaching studies provides the most convincing evidence for the validity of student ratings. More studies on the issue have revealed a persistent strong link between students' evaluations of what they learnt in class and their evaluations of the instructor and course overall (Centra & Gaubatz, 2000). This seems to imply that teachers who teach to the satisfaction of students are likely to be rated more highly by students, whereas teachers who fail to meet their students' academic demands may probably be given poorer ratings. If this supposition is

correct, then student evaluations may be seen as a reliable indicator of a teacher's efficacy.

Usually, one would have expected that students by default would rate their teachers to be effective or not based on certain biased factors. Ferguson (2010) notes that despite this, students' answers to teachers differ; depending on the calibre of instruction they get, they may give one teacher a high rating and another a bad one. This implies that students' ratings are influenced highly by the quality of teaching they experience from the teacher. Due to the authenticity of evaluations by students, the current study adopted this method of teacher evaluation to triangulate the teachers' evaluation of themselves since teachers appear susceptible to rate themselves higher than they ought.

Teacher Personality

The teacher is generally agreed upon by all stakeholders involved in education to be the most crucial component of the education system. Again, many researchers have come to the conclusion that teacher personality continues to be the most crucial factor accessible in the classroom (Getzels & Jackson, 1963). Teachers have a key role in breaking down the material for the students, according to Tamakloe et al. (2005). The teacher is thus burdened with an endless number of duties, both within and beyond the classroom. Kwarteng and Donkor (2019) noted that teachers do not constitute the only determinants of students' learning; however, they undoubtedly play a crucial part in making sure that the students receive the proper level of knowledge transfer. The above assertions presuppose that as complex as teaching is, it is also very demanding and may require tact and the whole person of an individual to be successful at it.

Moreover, the skills and personality strengths needed by an individual to be successful in any given career are almost inseparable. This is why organizations invariable scout for skill and competency tendencies in prospective employees before being offered employment. This means that every profession has certain skill sets and personality types that favour excellence in that field. It is also true that to become a teacher, one must possess some skills and certain personality characteristics that predispose them to become effective at teaching. It appears success at every endeavour is tied to one's personality characteristics.

Personality, which has been discussed variously by Larsen and Buss (2005) as "a set of psychological traits and mechanisms within the individual that are organized and relatively permanent, and affects the interaction and adaptation of the individual to the intrapsychic, physical and social environment" (p.14), basically depicts the totality of a person. It reflects the manifestation of who you are intrinsically and what you do extrinsically. According to Fynn (2020, p. 46), "the core of each individual is the product of all responses that are expressed in everyday living". Thus, it takes account of one's consistent words and thought under many circumstances. Since personality depicts the totality of a person coupled with the critical role teachers play in the classroom, it is important that teachers' personality is painstakingly examined. This justifies why most teacher personality researchers focus on the kinds of personality that enter the field rather than how much they perform given their type of personality (Fynn, 2020).

Personality invariably influences teacher behaviour in numerous ways. According to Murray (1972), teachers' personality influences his or her choice

of method(s), interaction with students as well as learning experiences selected for classroom interactions. Moreover, it is an established fact that teachers differ in many respects regarding their personality when examined by their area of specialty, gender, and sex, and finally, the level they teach on the educational ladder (Getzels & Jackson, 1963). Hence, taking the FFM or BFM as the yardstick, implies that all the five aspects (openness, conscientiousness, extraversion, agreeableness, and neuroticism) influence the behaviour of the teacher. Thus, a teacher with high openness traits teachers may be very adventurous in terms of the use of teaching methods by adopting methods that are more engaging such as brainstorming, accepting students' points of view during discussions, and may score high on classroom engagement.

Furthermore, teachers who have high extraversion scores may be very effective in class control, well-arranged and conducive classroom environment, discipline students by punishing unacceptable behaviours, and exhibit enthusiasm in teaching. Also, teachers may be able to stimulate students' interest in learning due to their general likeability and enthusiasm if they score high on extraversion traits. Besides, they would be able to lead their students effectively to accomplish objectives and tasks set in the classroom. Better still, teachers who score high on agreeableness stand a good chance of creating a learning environment where students can tolerate one another and improve peer learning. Last but not least, teachers who score high on neuroticism will have problems with class control since such teachers will experience a high level of anxiety which may affect their speech. The foregoing represents the effects teacher personality has on the classroom practices of teachers.

Teacher personality research is important for several reasons. Several studies (Göncz, Göncz, & Pekić, 2014; Ezzi, 2019; Othman, 2009; Kim, Dar-Nimrod & MacCann, 2018; Kim, Jörg, Klassen, 2019) have found both causal and profound association (correlational link) between teacher personality and effectiveness. Personality is a primary forecaster of teacher effectiveness (Polk, 2006). As a matter of principle, the core mandate of the classroom teacher is to ensure that the enacted curriculum is translated into bits and pieces of information for which students can assimilate. Generally, success in the classroom represents success in the entire education sector. Besides, success in the classroom has been found to highly depend on teacher effectiveness which also depends highly on teacher personality. Therefore, a study on teacher personality is highly indispensable in the educational sector. That is why this study sought to explore personality and economics teachers' effectiveness in Ghanaian Senior High Schools.

Relationship between Teacher Personality and Effectiveness

The connection among teacher personality and effectiveness cannot be overemphasized. Generally, research on teacher personality has tried to draw associations between personality and its influence on a myriad of organizational and educational outcomes. Some of the variables which have been found to depend on personality characteristics are job performance, job satisfaction, teacher effectiveness, organizational commitment, teacher retention rate, health, and absenteeism, among others (Brehini, 2018; Ezzi, 2019; Göncz et al., 2014). The Five-Factor personality appears to have gained deep roots when it comes to educational research on personality in recent times. For instance, Jones (2017) observed that is it the topmost predictor of job performance. The

correlation between teacher effectiveness and personality has been examined in several research.

Teachers' non-cognitive characteristics are highly related to the characteristics of effective teachers. Research on the features of ineffective and effective teaching practices indicate that exceptional teachers are individuals who possess certain characteristics such as (1) making difficult subjects easy to learn, (2) respectfulness (3) being concerned about students' success, (4) friendliness, (5) passionate about their subject, (6) fair in evaluating students, (7) well equipped and organized always, (8) open for questions and discussion, and (9) making the classes interesting (Raymond, 2008). Also, Yilmaz (2011) identified some important characteristics of productive teachers. Some of these characteristics are friendliness, warmth, the ability to motivate students to learn concepts, and dynamism.

Many more researchers favour the assertion that teacher personality, especially the big five personality dimensions, and effectiveness are two inseparable concepts (Murray, 1990; Chhaya, 1974; Barrick & Mount, 1993). Significant attitude adjustment and personality are found among teachers who are more effective than those who are found to be ineffective (Chhaya, 1974). Emotional stability (teachers who score low on neuroticism) appears to be generally linked with effective teachers whereas ineffective teachers are found to be emotionally unstable. Consistently in many kinds of literature, the conscientiousness dimension has been found to positively predict job performance, according to a meta-analysis study by Barrick and Mount (1993). Before coming to this conclusion, Barrick and Mount found that conscientiousness consistently correlated positively with work performance

across a variety of occupations. Besides, Yilmaz (2011) was of the view that other personality traits such as openness and agreeableness predicted job performance. Generally speaking, effectiveness and personality are related. However, some dimensions produce more positive or negative significant results whereas others also produce positive or negative insignificant results.

Empirical Review

This part of the review of the literature is devoted to analyzing the empirical research on personality and teacher effectiveness that has been done by academics. The researcher attempted to draw comparisons and, more crucially, contrasts between current research and previous ones. This makes it possible to compare the findings that would come from this research with those that had come from earlier studies. The review was done based on the research objective or hypothesis guiding the study.

Level of Economics Teachers' Effectiveness from both Students and Teachers' Perspectives

Researchers have remarked that in the classroom, the instructor is the most crucial component. Several studies have looked at the importance of ensuring that resources invested in education would not go to waste. It is therefore important that at any given point in time the effectiveness or otherwise of the classroom teacher is ascertained in other to provide the necessary interventions. The section of the empirical review is dedicated to reviewing previous research works that had focused on establishing the level of teacher effectiveness either from teachers' or students' perspectives. Some authors whose works were reviewed included Lumadi and Acquah (2014), Kwarteng

and Donkor (2019), Fernández-García1, Maulana, Inda-Caro, Helms-Lorenz, and García-Pérez (2019) and Robert and Owan (2019).

The first piece of empirical evidence considered was study by Lumadi and Acquah (2014). The study's objective was to assess the performance of aspiring economics teachers in the Central Region, particularly from the perspective of senior high school pupils. 2,194 SHS students (1,332 males and 862 females) and 52 aspiring economics instructors (21 females and 31 men) participated in the study's descriptive survey method. The students' rate of teacher effectiveness (SRTE) was the instrument used to collect data, and stratified sampling was the method used to select the students. The researcher made use of frequencies and percentages to determine the overall effectiveness of trainee economics. Lumadi and Acquah's (2014) research was the initial study's sample size was fairly representative, therefore it is most likely to accurately reflect the opinions of the wider public.

Lumadi and Acquah (2014)'s descriptive survey design paints a clear image of what applies or how the situation actually seems. To explain the current situation and determine if the effectiveness of Economics professors has altered, the current study also used a cross-sectional descriptive survey design. To guarantee that the findings of the study were not biased in one direction, the current study additionally gathered data from teachers and students. However, the efficiency of pre-service economics teachers' non-cognitive traits was not specifically addressed in the study by Lumadi and Acquah. The efficiency of Economics professors is influenced by their personalities, according to the current study.

According to the findings, the widely held opinion was that Economics teacher candidates were competent in teaching Economics. Students' assessments of the success of Trainee-Economics teachers were significantly influenced by how they thought of their teachers' intellectual ability, learning environment, and significance. On the other hand, it was shown that the factor with the greatest influence was intellectual quality. As a result, it was discovered that senior high school students trusted their Trainee-Economics teachers and that their assessments of those teachers' efficacy were primarily influenced by their intellectual ability. The findings that emanated from this study is very relevant to the current study as the researcher seeks to evaluate the level of economics teachers' effectiveness. Even though there is a geographical gap, the characteristics of teachers in these two locations are not so different. Characteristics such as educational background, qualification, among others are very similar. As a result, similar findings are expected form the current study.

Kwarteng and Donkor (2019) also looked at how Techiman students evaluated the effectiveness of their accounting teachers' instruction. 662 senior high school accounting students from the Techiman Municipality in Ghana's Bono East Region were investigated using a descriptive survey approach. 310 seniors from senior high schools were selected as a sample using proportionate stratified random selection. A questionnaire was the primary tool used in the research's execution. Student evaluations of accounting teachers' teaching effectiveness generally found that they were effective, regardless of the students' gender. Although students believed their lecturers were successful in raising intellectual standards and creating a great learning environment, many had doubts about their ability to make the accounting lectures meaningful.

In their study, Kwarteng and Donkor (2019) used a design that provides a clear illustration of what is relevant at any given time. The study was also conducted in Ghana, just like the current study. However, the study of Kwarteng and Donkor was done in accounting education and not in economics. This therefore creates a contextual gap that has to be bridged. Also, there is a geographical gap since there appear to be no study measuring the level of Economics teachers' effectiveness. The current study also attempts to measure teacher effectiveness from both students' and teachers' perspective, unlike Kwarteng and Donkor who measured effectiveness only from students' perspective. The current study employed the views of both teachers and students for triangulation purposes - an attempt to cross-check students' evaluation with teachers' own opinion of their own effectiveness. It is possible that teachers with favourable personality characteristics will be rated high by students than others, therefore the need to ascertain effectiveness from teachers' perspective since they better understand what effective teaching entails.

Fernández-Garca, Maulana, Inda-Caro, Helms-Lorenz and Garcá-Pérez (2019) also looked at student impressions of teacher behaviour. A further objective was to determine if differences in students' assessments of their instructors may be attributed to differences in teacher attributes (educational level, gender and teaching experience). According to teaching research and teacher effectiveness, teaching behavior was examined. 7,114 secondary school students from Spain who were instructed by 410 teachers partook in the survey. To analyze survey data, non-parametric tests, Kruskal-Wallis, U Mann-Whitney with Bonferroni correction, and effect size analysis were utilized. A regression model was further employed.

According to the study, the teaching behavior domain assigned grades for conduct that ranged from adequate to extraordinary. The results showed that lower secondary education, upper secondary education, and vocational education all had significant disparities in teacher education and training. All six teaching skill domains—learning climate, effective classroom management, clarity of instruction, activating teaching, differentiation, and teaching-learning strategies—had a significant impact on teachers' teaching experiences, according to the effect size values (U statistic), which ranged from 0.43 to 0.63. The instructors with the least amount of teaching experience produced the best results. The educational degrees had a strong predictive impact on the six dimensions of teaching abilities, according to the regression model, especially for male instructors. Contrarily, students evaluated female lecturers favorably. Female instructors, on the other hand, were regarded by pupils to outperform male instructors in numerous dimensions.

The study's main objective, according to Fernández-Garca et al. (2019), does not align with the inquiry at hand. However, the second goal of the current study is in line with the third research goal, which looks at viewpoints on teaching and teacher effectiveness. Comparatively speaking, the current study is also regionally skewed. Therefore, the current study will provide information about what is relevant to Ghana in terms of teacher effectiveness.

Another research by Robert and Owan (2019) looked at students' perceptions of teachers' effectiveness as well as learning outcomes in mathematics and economics in secondary schools in Nigeria's Cross River State. The researchers used cluster and purposive selection techniques in a factorial study design to choose a sample of 1,800 children from the three school

zones in Cross River State. The instruments employed for data collection were the "Students' Perception of Teachers Effectiveness Questionnaire (SPTEQ)," the Mathematics Achievement Test (MAT), and the Economics Achievement Test (EAT). Cronbach alpha reliability values of .86, .91, and .81 was found for the three instruments. Descriptive statistics were used to examine the acquired data with the aid of Minitab v18, and multiple regression and the Pearson Correlation matrix were used to assess the null hypothesis (where appropriate). The results show that learning outcomes in Mathematics (F = 142.46, p.05) and Economics (F = 150.31, p.05) are significantly influenced by students' assessments of their instructors' ability to motivate them, their teaching methods, their relationships with them, and their degree of communication.

The employment of motivational techniques like praise, rewards, and smiles by secondary school teachers was advised, among other things, in order to boost the interest of pupils in their economics and mathematics lessons. The current study and the study by Robert and Owan (2019) are comparable. They used a variety of instruments to obtain data from the respondents, which is another important finding of their study. The researcher was able to gather sufficient data using a variety of data gathering tools, which allowed triangulation to be used. The findings of the study also apply to this investigation. It will serve as the cornerstone for the adoption of multiple measures of teacher efficacy.

Dominant and Least Big Five Personality Domain among Economics Teachers

Arif, Rashid, Tahira, and Akhter (2012) evaluated and contrasted the Big five personality qualities of prospective teachers at teacher education

colleges in Punjab, Pakistan. 100 pre-service teachers with a B. Ed. degree (60 women and 40 men) were gathered for the study from four public colleges in Punjab, Pakistan. Twenty-five potential professors from each university were selected using a practical sampling approach. The BFI, created by John and Srivastava (1999), was handed to the chosen pre-service instructors with just minor modifications. This inventory had 25 statements—five for each of the Big Five personality traits—about the Big Five personality traits. Standard descriptive and inferential statistical techniques like the mean and t-test were used to examine the collected data.

The ratios of the other four major personality traits—Extraversion, Agreeableness, Conscientiousness, and Neuroticism—were nearly identical, but the ratio of the openness personality trait was higher, indicating that this trait predominates among potential teachers more than the other four. Men and women who were considering becoming teachers were shown to have very different big five personality traits. On their test of the Big Five personality traits, prospective teachers who were female did better than those who were male. The results of this study showed how effective teacher preparation programs are at developing teachers' personalities.

Researchers were able to propose certain ways for teacher personality development as a result of the study, which will be incorporated into programs for teacher preparation. The third research topic of the current study is consistent with the study's primary goal. In terms of population, the study involved new teacher trainees. This has a tendency in not presenting what actually pertains in the real classroom since they are not practicing teachers. In geographical wise, the study was also conducted outside Ghana. The sample selection for the study

was also not representative enough since the research employed convenient sampling technique in involving the respondents in the study. Convenient sampling technique is bias in nature and does not give equal representation to participants to take part in the study since the research only selected at his convenience those that could give him the information needed. The current study, therefore, employed random sampling techniques to ensure that each respondent is given an equal chance of taking part in the study.

In Solano County, Jones (2017) performed research on the qualities of teachers who are successful in both urban and suburban settings. Teachers of the Year and nominees from schools in the Urban and Suburban school districts in Solano County, California made up the population for this research. Two male and twelve female Urban Teacher of the Year nominees make up the sample of 14. There are two men and six women among the eight Teachers of the Year in the suburban sample. Though this topic is in line with the current topic, it does not look at the differences between characteristics in terms of urban and suburban settings. In geographical wise, there is a disparity between the study of Jones (2017) and the current study. Unlike the study of Jones (2017), the current study also includes students in the data collection to give a wider perspective of the subject in question.

The results showed that both groups exhibited extremely high Extroversion, extremely high Agreeability, extremely high Conscientiousness, extremely high Openness, and moderate to medium Neuroticism. The results also showed that agreeableness, conscientiousness, and openness affected teaching efficacy in both urban and suburban situations. The results of this study suggest that personality factors may have an effect on how well a teacher

teaches. Although more research is required in this area, the ability to anticipate the effects of personality traits on teaching effectiveness may be useful for staff selection and job performance prediction. The findings and recommendations of Jones's study serves as a motivation for the current study. It opens up the conversation for more probe into the interaction between the Big-Five personality dimensions in terms of their contributions to teacher effectiveness. It is based on this that research question two was dedicated to finding the least and dominant personality trait among Economics teachers in the Central Region.

Ezzi (2019) looked on how personality may have affected the success of aspiring English teachers in Yemen. Additionally, this subject fits with the ongoing research. The first study, on the other hand, involved pre-service teachers, but the current study included permanent teachers and students. Fourth-year English Department professors at Hodeidah University's Faculty of Education were the study's participants. 110 fourth-year student instructors were chosen as the sample, with 24 men and 86 women. Descriptive and inferential statistical techniques employed in the study included mean, Pearson correlation, t-test, and f-test. The current study similarly used a cross-sectional survey design. This will ensure that all observational data are collected simultaneously. Additionally, Chalmers (2004) and Ponterot (2005) emphasized that the cross-sectional survey methodology helps researchers to explain several facets of social phenomena, such as the respondents' opinions and behaviors.

It has been demonstrated that personality traits are associated to pre-service teachers' success in Practicums I and II, indicating that personalities indeed influence pre-service teachers' ability to teach English. Similar levels of

extraversion, agreeableness, and conscientiousness are also present among pre-service teachers. There are suggestions for how pre-service teachers might develop their personalities, and teacher personality development ought to be covered in teacher education curricula. These findings demonstrate a relationship between preservice instructors' personalities and performance, but not with student learning. The study's findings gave us a notion of personality and performance as well as the relationship between extraversion, agreeableness, and conscientiousness in pre-service teachers, but they did not address the other two Big-Five personality trait dimensions. The goal of the current study was to determine the relationships between the Big-Five personality traits' five dimensions as well as the most and least prevalent trait among permanent Economics teachers, but not pre-service teachers.

Influence of the Big Five Personality Dimensions (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) on Teacher Effectiveness

Several 'contextual' or 'input' and 'process' variables have been established by literature (Kyriacou, 2009) to influence teacher effectiveness. Core among the contextual variables is the teacher's personality. This aspect of the review seeks to corroborate or critique previous empirical evidence that exists in the literature on the influence of the Five-Factor Personality dimension on teacher effectiveness. Some of the studies reviewed were Kim et al. (2019), Kim, Dar-Nimrod and MacCann (2018), Othman (2009) Goncz, Gonca and Pekic (2014), and Brehini (2018).

First and foremost, a meta-analysis by Kim et al. (2019) investigated the connection between teacher personality and both effectiveness and burnout. The

meta-analysis focused on 25 studies (with a total of 6294 participants) that looked at the links between the Big Five personality traits and two teacher job outcomes (i.e., teacher effectiveness and burnout). The researchers noticed that there is no guiding framework about which skills are vital for teachers. This therefore creates a gap in information that must be filled. Teaching as a science purport that there must be a guiding framework that the teacher follows to ensure that effective teaching takes place in the classroom. The current study therefore ensured that there is a guiding framework or a benchmark regarding which qualities are most important for teachers to ensure that they achieve effective classroom delivery and students' performance. The NSWQT model was employed for such purpose.

The study also looked at the effects of three moderators: the kind of teacher effectiveness assessment, the source of the personality evaluation, and the instructed educational level. In specifically for teaching evaluations, it was discovered that the teacher Big Five qualities (with the exception of agreeableness) were positively correlated with teacher effectiveness. The negative relationship between teacher burnout and emotional stability, extraversion, and conscientiousness was also discovered. Self-reports were less strongly correlated with outcomes than other estimates of instructor personality. Between educational levels, there were no changes in the strength of the correlations. Exploration of the value of using common descriptors in teacher research and the usefulness of the implications for assessing teacher personality are both covered. These findings are relevant to the current study on the premise that they will serve as a benchmark for measuring the acceptability or otherwise of the findings that will emerge.

Second, Kim et al. (2018) examined the relationship between teacher personality and effectiveness in secondary schools in Australia and the United Kingdom. The study's population comprises of 13 schools from four Australian states. Participants in the research included 2,082 students with self-reported ages between 11 and 16 and 75 math and English teachers with ages between 21 and 62. Multilevel regressions were conducted on the data collected from secondary school and their mathematics and English teachers. This study is in connection with the theme of the current study. However, this study is conducted in the United Kingdom, Australia, which is outside Ghana. This therefore created a geographical gap that has to be bridged since the findings in one country may not necessarily be the solutions in another country. The current study also made use of questionaries since questionnaires ensure wider coverage just like the previous study. In terms of subject area, this study was conducted among Mathematics and English teachers. This creates a contextual gap that has to be bridged since the current study is conducted in the area of Economics.

The Big Five personality traits and other non-cognitive elements were discovered to be predictive of students' academic success in the study. Although teaching and learning theories suggest that teachers' non-cognitive attributes have an impact on student performance, these traits are rarely thoroughly examined. According to the study, the Big Five personality traits of instructors are related to their efficacy. It is clear that Kim, Dar-Nimrod, and MacCann (2018) and the current study both used the Big Five personality Model for their studies, however Ghanaians cannot significantly benefit from the findings of the earlier studies due to demographic and contextual variations. Additionally, the direction of the association between the Big Five personality traits and efficacy

was not specified by Kim, Dar-Nimrod, or MacCann. On the contrary, the current study will establish the direction of the relationship.

Othman (2009) examined personality that influence teaching effectiveness in Malaysia. This topic is in line with the current study. Perlis, Kedah, Pulau Pinang, Perak, and Secondary School regular teachers from Malaysia's northern region made up the study's population. A sample size of 391 from the secondary schools was employed by the researcher. The study adopted a research questionnaire for the data collection. One good thing observed about this work is that it uses primary data in its analysis. However, the data collected was only one-directional data. The survey only covered teachers. The geographical gap observed in this work is its continental biasness. The current study therefore will serve as an eye-opener of what pertains to Ghana.

This current study, therefore, collected from both teachers and students. The students' population comprised 600 and the teachers' population was made up of 122. It is in this vein that the researcher is of the view that the previous study may not be rich in depth. The current study, therefore, solves this problem by including students in the evaluation of teachers' effectiveness. The study's findings revealed that extrovert, agreeableness, and conscientiousness have a strong link with teaching performance, however neuroticism and openness had no such relationship. Teacher personality plays a key role in students learning. From the findings, it is observed that temperament is a factor determining which personality a teacher exhibits in the classroom. These findings on teacher personality will be the yardstick for judging the relevance of the findings that will emerge from the current study.

Goncz, Gonca, and Pekic (2014) examined in Serbia how students' opinions of effective teachers were influenced by the five-factor model of personality. This subject is relevant to the present debate. The five-factor model of personality is also examined in the current topic. Students of computer science and humanities were the study's population, and they were asked about their opinions of effective professors. In contrast to the earlier study, the current one involves both professors and students. Compared to the earlier study, this provides a greater coverage of the phenomenon. 443 people made up the sample. The major tool used for the inquiry was a questionnaire. A questionnaire is also employed to gather data from the respondents for the current investigation.

According to the findings, the most significant attributes of a great teacher are openness to new experiences, as well as traits of agreeableness and neuroticism that build strong interpersonal interactions. Students of social and humanities sciences favored lecturers who were more open, extravert, and caring than students of scientific and technical sciences. With students of scientific and technological disciplines, the prediction of favorable teacher expectations (based on personality qualities) was more successful than with students of social sciences. These data will serve as the basis for comparing the findings that will emerge from the current investigation. Finally, Nungua and Osu Presbyterian Senior High School teachers were studied by Brehini (2018) for their organizational citizenship conduct and big five personality traits. The study was conducted in dual secondary schools: Osu and Nungua Presbyterian SHS. The research employed a descriptive research design. With a sample size of 120 instructors, data was collected via questionnaires from chosen schools.

This topic is relevant to the current study, which is also being carried out in Ghana. The study's data gathering tool was a questionnaire, which was employed in a descriptive survey design. However, the study of Brehini (2018) only focused on the study of teachers and did not take students into ponderation. The current study, therefore, made use of both teachers and students. The current study also went further to look at how the five-factor model of teachers influences students learning.

According to the study, openness to new experiences is the only personality characteristic that significantly and favorably predicts each of the three aspects of organizational citizenship behaviour. More than the other four Big Five personality dimensions, openness to experience was the best predictor of the three organizational citizenship conduct characteristics. Conscientiousness was also found to predict the OCB-I and OCB-CH dimensions in a positive and significant way. From the findings, openness was identified as the only trait that significantly and positively predict changes in the dependent variable. The current study therefore will help give an in-depth view of the other four factors that influence teacher personality.

Differences in Economics Teachers' Effectiveness Based on Teaching Experience

In Ondo State, Nigeria, Adeyemi (2007) examined the academic progress of secondary school students and the classroom experiences of teachers. The research population comprised all 257 of the State's secondary schools that sent pupils to sit for the 2003 Senior Secondary Certificate (SSC) exams. 180 schools were chosen at random as a sample from the general population using a stratified random selection technique. The data for the study

were gathered using an inventory and a schedule for semi-structured interviews. As statistical techniques for the analysis, the chi-square test, correlation analysis, and t-test were used. Semi-structured interviews with selected principals and education authorities were conducted. Their answers were examined using content analysis.

The findings showed that teaching experience had a substantial impact on students' learning outcomes as determined by how well they performed on the SSC test. Schools that had more instructors with at least five years of experience performed better than those that had fewer instructors. The findings recommended that the government develop incentives for seasoned instructors to continue working, such as more opportunities for growth, an improved welfare program, and better working conditions. This research aligns with the present study's fourth research subject. The researcher employed numerous data collection instruments which are commendable. Several statistical tools were also employed for the analysis. However, the study was not focused on any subject area which the current study seeks to address. The sample frame for the study was also not representative enough since the study cut across all subject areas. The current study is in economics and also involves both students and teachers in the study population to ensure there are no biases. The study of Adeyemi (2007) was carried out in Nigeria and not in Ghana. This, therefore, creates a geographical gap that has to be bridged.

Ewetan and Ewetan (2015) assessed how teaching experience of teachers affected the academic achievement of learners in public secondary. A descriptive research methodology was used to perform the study. In the two local government regions included for the research were all 31 Senior

Secondary Schools. 20 schools in all were chosen using a simple random selection methodology from the population, comprising 14 schools in the Ado-Odo/Ota Local Government Area and 6 schools in the Ifo Local Government Area. An inventory schedule served as the tool for gathering data. Each school received 20 surveys, for a total distribution of 400. A total of 388 (97%) questionnaires were returned. Their replies were examined using content analysis. Regression analysis and the t-test were used to check the study's assumptions at 0.05 alpha levels.

The results show that instructors' teaching experience has a significant impact on students' academic advancement in Mathematics and English Language, as determined by SSC test results and as perceived by respondents. In comparison to schools with fewer teachers with over ten years of experience, those with more experienced teachers performed better. Additionally, this study is consistent with the existing goal. There were two subject areas covered. English language, mathematics, and not economics. As a result, there is a contextual gap that must be filled. The current study also employs the study's descriptive survey design for collecting data from respondents.

In their 2017 study, Ladd and Sorensen examined the impact of teachers' years of experience on their effectiveness. They took advantage of administrative data on North Carolina kids and teachers that were longitudinally matched. The study adds to the body of information in this subject by concentrating on middle school tutors and broadening the analysis to include student outcomes other than test results. They discovered significant returns to experience for middle school teachers in the form of higher test scores and improvements in student behavior after statistically controlling for the quality

of individual teachers using teacher fixed effects, with the clearest behavioural effects emerging for reductions in student absenteeism. These benefits also persist rather well throughout the latter years of teaching.

By showing that instructors can and do learn on the job, the paper contributes to policy discussions. Regardless of how proficient they eventually become, most academics and policymakers concur that less experienced instructors frequently do worse than their more experienced peers. This study went beyond test scores of students and added the rating of teachers to assess teacher effectiveness. The study however did not clearly indicate the procedures followed for sample selection and justification. The study of Ladd and Sorensen (2017) enumerated several findings regarding teacher effectiveness for affirmation or otherwise of the results that will emerge from the current study.

Dial (2008) evaluated the impact of teaching experience on students' overall performance on the communicative arts and mathematics parts of the Missouri Assessment Program. This study also assessed the effect of a teacher's degree level on the overall performance of pupils on the communicative arts and mathematics components of the Missouri Assessment Program. Using descriptive statistics and factorial ANOVA, the researcher examined data from the Missouri Assessment Program exam's communication arts and mathematics sections from the 2005–06 and 2006–07 academic years to determine whether a teacher's degree or years of experience had an impact on students' academic performance. The results were inconclusive and suggested that teacher education had little impact on student progress.

The findings showed that students' achievement in both communication arts and mathematics was influenced by years of experience as well as by the

interaction between years of experience and degree level. These findings lay a solid platform for future research, and this study might be extended with future test score data. It might also be scaled up state-wide, including data from districts all around the state. Last but not least, this research may include other features such as years of experience teaching a certain subject or grade level, as well as a particular field of study. The study of Dial (2008) is not directly in line with the main objective. The study, however, looked at years of teaching and their effect on students' overall performance. It further incorporated the teachers' academic qualification and how that influence students' academic performance. The findings pointed that teacher qualification and years of experience influenced students' performance. These findings will form the bedrock for the current study in analysing the fourth research question.

Differences in Effectiveness of Economics Teachers based on Gender

Sandhu and Agrawal (2020) investigated male and female high school educators' efficacy, personality, and emotional intelligence. To achieve the research's goal, a descriptive survey approach was used. Through a random selection technique of sampling, 400 high school instructors working in government-aided and private schools in the Mathura district of Uttar Pradesh were chosen for a trial. The collected data was examined using statistical approaches such as critical ratio. The findings of the study revealed that high school educators differ greatly in terms of teacher effectiveness, personality, and emotional intelligence depending on their gender. Instructors' efficiency, emotional intelligence, and personality of male and female teachers were shown to have a substantial relationship, according to the findings.

The study of Sandhu and Agrawal (2020) is in line with the current study. The schools involved in the study were both private and government. The current study involved only government schools. This will help compare the findings which will emerge from the study. It was found that differences in gender affects teacher effectiveness. Since there is a geographical biasness, this study cannot be wholly accepted hook line and seeker for policy formation. The current study therefore will add to knowledge.

In terms of marital status, education, location, and method of instruction, Islahi and Nasreen (2013) compared the effectiveness of male and female instructors. These issues have substantial ramifications for comprehending and assessing teachers' efficacy, especially in light of the altering gender makeup of school personnel. On a sample of 482 teachers, 245 of whom were men and 237 of whom were women, correlation, the t-test, and the ANOVA were used. Overall, the effectiveness of male and female teachers was similar, despite variances based on a variety of demographic criteria. In order to get the most out of male and female teachers and produce high levels of effectiveness in their profession, the paper concludes by making the case that gender-specific responsibilities and requirements must be given both substantive and methodological attention. This is because the quality of education delivered is largely determined by teachers' effectiveness.

This study is also in line with the objective of the current study. The statistical tools employed for the study would also be adopted in the current study. The sample size for the current is however more than this study to ensure wider coverage an equal representation. The study of Islahi and Nasreen (2013) revealed that effectiveness between the genders differ and that males should be

given more responsibilities compared to their female counterparts. This assertion however appears to portray biases in the field of employment opportunities regarding gender. The current study will test this hypothesis to see if it applies in all geographical areas or it is context-specific.

In order to better understand how gender and teacher efficacy affected the academic performance of Economics students at Ondo State High School, Omonije, Obadiora, and Olabanji (2016) conducted an investigation. A survey research design was used for this investigation. A total of 576 respondents were chosen at random from 36 Senior Secondary Schools, including 540 Senior Secondary School (SSII) Economics students and 36 Economics professors. Data were gathered using the Teacher's Attributes Questionnaire (TAQ) and the Economics Students' Performance Test (ESPT), two reputable research instruments. Utilizing multi-linear regression analysis, the data was evaluated.

The findings demonstrated that teacher sex and self-efficacy have favorable effects on students' economic performance of 0.06 and 0.11, respectively. The study also revealed that the contributions of instructor factors are not significantly different ($F=0.180$, $p>0.05$). The study concluded that instructors' sex and self-efficacy have a factor in the academic success of Economics students in Ondo State. The study of Omonije, Obadiora, Olabanji (2016) is in line with the current objective and in the area of economics. The sample frame was also representative enough and appropriate statistical tools were employed for the analysis. The study however was not carried out in Ghana and this geographical gap has to be bridged.

Beg, Fitzpatrick, and Lucas (2021) looked into the possibility of gender bias on the part of principals who evaluate teachers' performance. In Ghanaian

elementary schools, they contrasted the subjective assessments of administrators with the objective efficacy and self-ratings of teachers. Both male and female teachers gave themselves the same grade. Even if female instructors are objectively more successful in terms of student learning, principals are 11 percentage points less likely to assess them as "more effective". Principals rank the objectively least effective male teacher higher than the most effective female teacher. The conclusions were supported by a survey experiment that indicated comparable gender discrimination. The prejudice against female teachers affects both student learning and career advancement.

The study done in Ghana by Beg, Fitzpatrick, and Lucas (2021) is in line with the current goal. However, it took place in the elementary school rather than the high school. The findings, however, could change, which justifies the current investigation. The several objectives outlined to direct the current study were all in line with all of the aforementioned studies that were analyzed. All of the research were carefully analyzed, and it became clear that there were gaps in the literature that called for the current investigation. Therefore, the efficacy of economics teachers as well as teacher personality are evaluated in the current study.

In the Central Region of Ghana, Ajumako Enyan Essiam District, Fynn (2020) looked into how the personality traits dimensions of Eysenck affected senior high school teachers' work performance. The public SHS in the region he picked for his study were all included in the target population. As a result, 191 teachers were chosen for the research. The short-form personality questionnaire developed by Eysenck was used to collect data. The data analysis

procedure involved the use of inferential statistical tool as One-way analyses of variance (ANOVA), multiple regression and independent sample t-test. The study of Fynn adopted a standardized questionnaire which helped to reduce validity issues that may result from developing new instrument for a study. It, therefore, ensured a high measure of teacher personality. The current study would also adopt a standardized instrument to measure teacher personality.

There is one major contextual difference between the study of Fynn and the current study. Fynn adopted the Eysenck's personality trait but the current study adopted the Five-factor or the Big-Five personality trait in measuring teacher personality. Therefore, the researcher expects variation in the results of the study. According to the study's findings, the dimensions of Eysenck's personality traits and instructors' work performance were significantly positively correlated. Additionally, no correlation between the majority of demographic factors and instructors' work performance was discovered. Finally, the study showed a substantial difference between the work performance of male and female teachers, highlighting that male teacher performed better than female teachers. As a result of their direct relationship, the final result of Fynn's study will serve as a benchmark for comparison with the third hypothesis of the present investigation. Again, due to contextual differences (both geographical and methodological) it is not possible to assume the same findings may apply in the current study.

Conceptual Framework

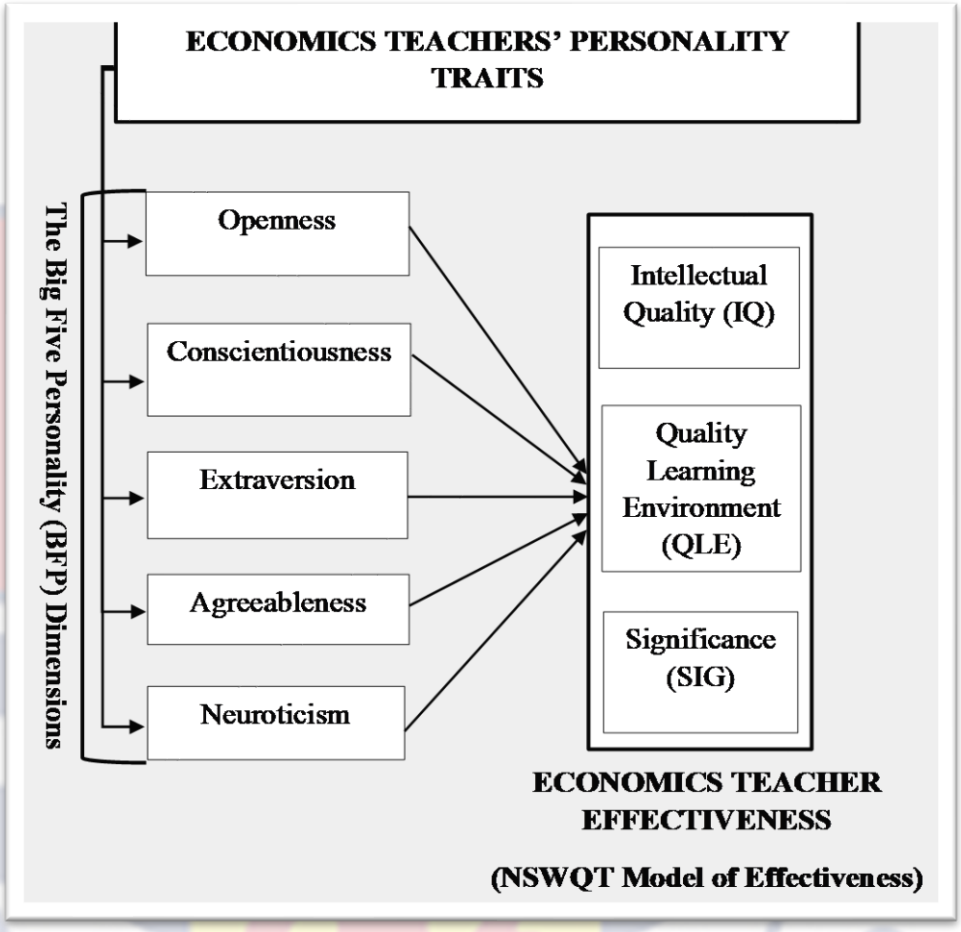

Figure 1: Conceptual framework of the influence of the FFM/BFM on economics teacher effectiveness

Source: Author's construct (2022)

The author created his own conceptual framework, which is depicted in Figure 1, to clarify how the dependent and independent variables employed in the study are related to one another. Two variables are mainly used in the study. The personality features of the economics teachers serve as the independent variable, while teacher effectiveness is the dependent variable. The independent variable's five domains are openness, conscientiousness, extraversion, agreeableness, and neuroticism. These characteristics influence how teachers behave in the classroom. The Five-Factor or Big Five personality model (FFM

or BFM) is made up of these domains collectively. From the framework, there is a one-way relationship; that is, personality affects the effectiveness and not vice-versa. This is represented by the one-way arrows traveling from the various personality domains to effectiveness.

On the other hand, the dependent variable, which is teacher effectiveness contains three dimensions, namely, Intellectual Quality (IQ), Quality Learning Environment (QLE), and Significance (SIG) coming together to form the NSWQT model of effectiveness. The overall effectiveness of the economics teacher was measured by his level of effectiveness in the individual domains. In the above framework, teacher effectiveness is expected to range from highly ineffective to highly effective, which is also dependent on how economics teachers perform or rate on the individual domains of the NSW Model of effectiveness.

The assumption underlining the framework is that each dimension of the FFM predicts or influences the overall effectiveness of economics teachers. Mainly, the path of the framework is such that the five-factor personality dimensions form the behavioural patterns of teachers in the classroom. Classroom practices involve decisions regarding choice of teaching methods, discipline actions, classroom control and management practices, enthusiasm in teaching, among others. The classroom practices adopted by the teacher eventually determine or influences his or her effectiveness level.

Chapter Summary

The chapter was generally divided into four sections comprising the theoretical review, conceptual review, conceptual framework and empirical review. The Five-Factor or the Big-Five personality model and the new South

Wales Quality Teaching (NSWQT) model were reviewed under the theoretical review. These models explained the theoretical underpinnings of the research this study. Besides, under the conceptual review, concepts related to teacher effectiveness and personality traits were reviewed. The concept of teaching, teacher effectiveness, ways to gauge effective teaching, teacher personality, and the connection between personality and effectiveness were among the concepts examined. The empirical review concentrated on earlier studies that directly related to the subject under investigation. Based on the study's research goals and hypotheses, studies were reviewed. These investigations served as the foundation for comparing the results of the current studies. The creation of a conceptual framework has also been used to explain the connection between personality and teacher effectiveness.

CHAPTER THREE

RESEARCH METHODS

Overview

This chapter describes the processes and techniques used to gather and analyze data. It outlines every step the researcher took to complete the study. The chapter's key subjects were consequently the study's design, demographics, sampling technique, data collection tools, instrument validity and reliability, data collection methodology, ethical considerations, data processing and analysis, and a summary of the chapter.

Research Design

The study aimed to assess the influence of economics teachers' personality on their effectiveness. The researcher sought to describe the personality of teachers as they were and had no interest in introducing any intervention or experiments to the relationship that exist between economics teachers' personality and their effectiveness. As a result, the descriptive cross-sectional survey research design was adopted for the study. The cross-sectional design was employed because data was collected at particular time and no additional data was collected henceforth. Also, the use of survey design allowed the researcher to use quantitative methods for analysing the research data. "The descriptive survey research strategy is appropriate for the conduct of this study because it allowed the researcher to seek explanations of certain aspects of social phenomena such as opinions, and attitudes of the respondents" (Ponterotto, 2005, p. 16).

Cohen, Manion, and Morrison (2003) recommended that participants be required to give accurate responses because it is possible for people to not be

completely honest when responding questions regarding private problems in the descriptive survey design. This methodology was determined to be the most suitable since the researcher was interested in describing the influence of economics professors' personalities on their efficacy rather than conducting an experimental study. In light of the study's objectives, a suitable design was necessary for inferences to be made that were significant. Therefore, it was used to evaluate how the personalities of economics teachers influenced how effective they were in Ghanaian senior high schools.

Population

The population is the larger interest group to which one intends to apply study findings, according to Fraenkel and Wallen (2006). The intended audience consisted of all SHS students and Economics instructors in the Central Region. There are 68 public SHS in the Central Region overall (GES, 2022). In the Region, there were roughly 335 economics instructors. 10,045 students were enrolled in the Region to study economics. The study's target population consisted of 10,380 participants in total.

The accessible population comprised all the form three Economics students and all form one (1) to three (3) Economics teachers. The form two students were excluded mainly because they were not in school during data collection due to the double-track schooling system. It must be noted that their absence did not have any dire consequence on the validity and reliability of the results. Also, the form one students were excluded from the study because they had just reported to school and had not even started active classes. Therefore, they did not stand in the position to access the effectiveness of their Economics teachers since they barely knew them. It must be noted that the accessible

population to a large extent possesses the characteristics of the target population and the exclusion of form one and two students has no dire consequences on the findings of the study. On the other hand, all teachers in the schools visited were included in the study.

Sampling Procedure

600 students studying economics were chosen using a simple random sampling procedure. The determination of sample size made by Krejcie and Morgan (1970) served as support for the choice of sample size for students. Creswell (2012) states that "the purpose of simple random sampling is to select sample subjects who will be representative of the population. The individuals selected will be equally affected by any population bias." (p. 143). The researcher used this method of sampling in order to provide each student an equal chance of being chosen to participate in the study. Specifically, the lottery method was employed. This was done with pieces of paper with an inscription of yes or no, indicating participation or no participation. Those who picked yes were allowed to participate in the study and those who picked no automatically indicated no participation. This was done in all the schools to ensure fair representation across the study sample in every school.

The census approach was utilized to choose all of the Economics teachers from the twenty schools who took part in the study. The recommendation of Farooq (2013) that when the elements in a particular population are relatively small, the whole elements could be employed instead of sampling them guided the decision to use the census approach. Once more, the census approach was used since, large samples tend to provide better judgment than smaller ones, when available and accessible (Gall, Gall, & Borg,

2007). The method made it possible for the researcher to consult each and every Economics teacher found in the 20 schools.

Data Collection Instruments

Questionnaires were used as the study's instrument for gathering data. According to Best and Khan (1993), the questionnaire, if properly designed and administered, has the potential to be the most useful and appropriate approach for gathering data in a research project because it covers a wider range of topics. The questionnaire for this study only included closed-ended questions. Close-ended questions don't unfairly favor more intelligent responses, according to Cohen, Manion, and Morrison (2003), and they're quick to generate and easy to code.

For teachers and students, there were two different types of questionnaires designed. The questionnaire for the students has two sections. Basic demographic data, including gender, form, and the course studied, were included in Section A. Additionally, part B concentrated on evaluating the performance of economics teachers. It was decided to use a five-point Likert scale with the following categories: Very Large Extent (VLE), Large Extent (LE), Moderate Extent (ME), Small Extent (SE), and Very Small Extent (VSE).

On the other hand, the teachers' questionnaire contained three sections. Section A included gender, teaching experience, professional qualification, and academic qualification. Section B focused on the evaluation of economics teachers' personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism). The five-point Likert-type scales ranging from Strongly Disagree (SD), Disagree (D), Uncertain (U), Agree (A), to Strongly Agree (SA) was used for Section B (teacher personality). Section C was

dedicated to the assessment of economics teachers' effectiveness in teaching economics. Again, the five-point Likert-type scales ranging Very Large Extent (VLE), To a Large Extent (LE), To a Moderate Extent (ME), To a Small Extent (SE), To a Very Small Extent (VSE), was adopted.

The instrument on teacher personality was the Big-Five Inventory (BFI) developed by John, Donahue, and Kentle (1991). The 44-item BFI was adopted for Section B of the teachers' questionnaire only. Unlike other Big-Five Inventories that take about 15mins to complete, the 44-item BFI takes about 5 minutes to complete which makes it a preferred option for many researchers, especially for the current study, as it involves teachers who are expected to fill out the questionnaire while in school. Another advantage of the BFI is that it is relatively shorter. For instance, the Trait Descriptive Adjectives Inventory (TDAI) by Goldberg (1992) contains 100-items whereas, the Neuroticism Extroversion Openness Five-Factor Inventory (NEO-FFI) developed by Costa and McCrae (1992) contains 240-items. Lastly, the BFI uses phrases instead of single words, hence making it easy to comprehend (John & Srivastava, 1999).

Also, the instrument on effective teaching developed by Lumadi and Acquah (2014) was adapted to evaluate teachers' effectiveness. The items in the questionnaire covered all the three dimensions of the New South Wales Quality Teaching (NSWQT) Model, namely; Intellectual Quality, Quality Learning Environment and Significance. The original instrument had 21 items covering all three dimensions. These items were modified and added on under the guidance of the researcher's supervisor. Hence, 29 items were used to measure teacher effectiveness in this study instead of the original 21 items. The 8 new

items were added so that the instrument covered all the sub domains of the New South Wales Quality Teaching Model.

The questions added included "My teacher helps me to differentiate the meaning of concepts in Economics from everyday use; My teacher helps me to use different forms such as graphs and other mathematical functions to explain concepts; My teacher encourages me to use various forms of communication [oral, written, iconic (diagrams and symbols)] to elaborate and discuss concepts learned in Economics; My teacher encourages me to accept responsibility for my learning and for the consequences of my behaviours in learning Economics in class; My teacher sometimes gives me the option to choose learning activities and assessment criteria; My teacher connects new material to past learning and assist me to see the continuity in my learning over time; My teacher encourages me to come out with my own explanation and definition of concepts; My teacher is considered to be generally effective in the teaching of Economics". Again, the language of the original questionnaire was modified in order for Economics teachers to self-evaluate their effectiveness. For instance, a statement like "my teacher encourages me to analyze the information he gives in class" was changed to, "I encourage my students to analyze the information I give in class". In all, the questionnaire for students had 34 items and that of teachers had 78 items.

Validity and Reliability of Instrument

The validity and reliability of the research tools were tested. The degree to which theory and evidence support how test results are interpreted in light of suggested uses is referred to as validity (Ary, Jacobs, Razavieh & Sorensen, 2006). While reliability relates to the degree of consistency to which the

instruments may give comparable findings, appropriateness and usefulness deal with the outcomes (Bentil, 2018). By using their professional judgment, the researcher's supervisor evaluated the questionnaire's face and content validity. According to Ary et al. (2006), face validity guaranteed that the respondents received relevant and unambiguous questions, whereas content validity assessed how logical the content of an instrument looks when considering the entirety of the domains it is intended to measure (Bowling, 2002).

Regardless of the fact that the 44-item BFI and the 'New South Wales Quality Teaching Inventory' (NSWQTI) were both adopted and adapted respectively, the researcher saw the need to conduct a pre-test due to contextual differences (geographical, cultural, among others). Consequently, a pre-testing of the instrument was carried out on a small sample of respondents in Tema Senior School in the Tema Metropolis. These teachers and students possessed similar characteristics to the intended population for the study. According to Baker (1994), a sample size of 10 to 20 percent (10-20%) of the real study was an acceptable figure to take into account for responders in a pre-test. Therefore, 10% of the intended total sample constituting 60 students and 13 teachers, were involved in the pre-test. Data were gathered and entered into the Statistical Package for Service Solution (SPSS) version 28 to estimate the reliability coefficient, which was then calculated using Cronbach's Alpha (α).

Cronbach coefficient alpha was established for each construct and the overall reliability coefficient was reported. Thus, the reliability co-efficient of the 29-item NSWQTI for Section B of the students' questionnaire was .921. Also, the overall reliability coefficient of the 44-item BFI in Section B of the teachers' questionnaire was .73 while the 29-item NSWQTI for teachers in

Section C was .976. Cohen, Manion and Morrison (2007) pointed out that a reliability coefficient of .7 is considered high and therefore adequate. This assertion was earlier proposed by Fraenkel and Wallen (2000) that a reliability coefficient value of .7 is adequately acceptable for a study. The instruments were considered highly reliable and adequate for the study.

The pre-test was done to refine the questionnaires so that respondents had no problem answering the questionnaires. Attention was drawn to the word "critique", which students found difficult to understand during the pretest. The item can be found on the 29-item NSWQTI of the students' questionnaire. Consultation with my supervisor, it was changed to "analyze" which was much easier for students to understand. Besides this change, no other changes were made. All other items were maintained.

Table 1: Reliability coefficient (Teacher Effectiveness)

	Students		Teachers	
Section	Pre	Post	Pre	Post
IQ	.77	.83	.95	.75
QLE	.93	.84	.93	.70
SIG	.84	.85	.91	.80
Overall	.87	.92	.98	.88

Source: Fieldwork (2022)

Data Collection Procedures

The Department of Business and Social Sciences Education at the University of Cape Coast was contacted to provide an introduction letter, which was then forwarded to the chosen schools. The purpose of doing this was to assist in securing approval from the participating schools' heads. Earlier before

the scheduled data collecting day, the letter was delivered. As the researcher was introduced to some classes in various schools, this enabled him build a level of rapport with the head and even some respondents. The Institutional Review Board (IRB) of the University of Cape Coast granted the researcher ethical approval prior to data collection as well. This was done in order to demonstrate that the researcher had the necessary plans and techniques in place for gathering the data required for the study, as well as that they were prepared to follow the proper procedures.

The survey was carried out by the investigator himself in all the schools. According to Osuala (1982) "the advantage of administering in person is that the researcher has the opportunity to brief respondents to understand exactly what the items mean so as to obtain the right responses" (p. 76). On the day of data collection, the respondents were briefed on what the study was about in order to get their attention, support, understanding, and cooperation for the data collection. Moreover, the researcher assured the respondents of the highest level of confidentiality. Also, the time allocation for answering the questionnaire which was approximately 15-20 minutes was made known to the respondents. Data was collected with a period of three weeks. The researcher ensured a high return rate by making sure he retrieved the questionnaires himself. So, there was a 100% return rate.

Ethical Considerations

On the basis of ethics, the researcher ensured maximum confidentiality and made sure the rights of the respondents are not infringed upon. In terms of protecting their rights, no one was coerced to be part of the study. Also, the informed consent of the prospective respondents was sought before including

them in the study. Appropriate measures were put in place to make sure no respondent was harmed or hurt in any way. For instance, the researcher ensured that no respondent was shouted at or disrespected in any way. The right of the respondents to reject the research results was upheld. The names of the responders and any other private information were kept anonymous to maintain confidentiality. The ability to stop at any time without consequence was provided to participants, who were assured that participation was voluntary and that declining to join would not result in a penalty or a loss of benefits to which they were entitled.

Data Processing and Analysis

The data was coded, cleaned as needed and managed once it had been gathered by entering it into the appropriate software to produce results. Finally, the data was cleansed to get rid of any errors that weren't visible. Simple statistics about the participating schools were produced from the collected data using SPSS version 28.0. Since some of the items on the 44-item BFI were negatively worded items, there was the need for reverse coding. The first letter of the various dimensions was used to identify the respective traits. Thus, E represented Extraversion, A-Agreeableness, C-Conscientiousness, N-Neuroticism, and O-Openness. Therefore, counting numbers were added to these letters to denote the number of items in the various dimensions. For instance, E1 and E8 represented the first and last items on the extraversion dimension respectively.

The 44-item BFI were reverse-coded. The items below were reverse-coded or scored:

Extraversion: E2, E5, E7

Agreeableness: A1, A3, A6, A8

Conscientiousness: C2, C4, C5, C9

Neuroticism: N2, N5, N7

Openness: O7, O9

Economics teachers' personality was scored on a scale of the five-point Likert-type scales ranging from Strongly Disagree (SD)-1, Disagree (D)-2, Uncertain (U)-3, Agree (A)-4, to Strongly Agree (SA)-5. Thus, a score of 5 became 1, 4 became 2, 3 remained 3, 2 became 4, and 1 became 5. This was the process that was followed for the recoding. Hence, the scale scores below were created and used for the BFI for the study (where R represents reverse-coded or scored items). The result is presented in Table 2.

Table 2: Personality Dimensions and Respective Codes

Personality Dimension	Codes Assigned
Openness	O1, O2, O3, O4, O5, O6, O7R, O8, O9R, O10
Conscientiousness	C1, C2R, C3, C4R, C5R, C6, C7, C8, C9R
Extraversion	E1, E2R, E3, E4, E5R, E6, E7R, E8
Agreeableness	A1R, A2, A3R, A4, A5, A6R, A7, A8R, A9
Neuroticism	N1, N2R, N3, N4, N5R, N6, N7R, N8

Source: Fieldwork (2022)

On the other hand, items on the NSWQTI were all positive and did not require any reverse coding.

Frequencies, means, and standard deviations, as well as inferential statistics such the Kruskal-Wallis H Test and Mann-Whitney U test, were used to statistically evaluate and explain the questionnaire's data. Frequencies were used to analyze the demographic traits.

Research question 1 was analyzed using descriptive statistics, specifically, means and standard deviations. To achieve the objective of determining the perceived effectiveness level of economics teachers from the

perspectives of teachers and students, a scale was developed based on the mean values generated. The decision rule regarding the mean and the standard deviation are also presented for easy interpretation. Data on effectiveness was collected on a five-point scale and scored as (To a Very Small Extent = 1, To a Small Extent = 2, To a Moderate Extent = 3, To a Large Extent = 4, Very Large Extent = 5). For the purposes of simplicity, sample breakpoints in the form of mean ranges were provided for the interpretation of the mean as follows: Highly Ineffective = 1-1.44; Ineffective = 1.45-2.44; Fairly Effective = 2.45-3.44; Effective = 3.45-4.44; and Highly Effective = 4.45-5.00. For instance, a mean value of 2.51 indicated that either teachers rated themselves or students rated their teacher as fairly effective. The researcher further employed descriptive statistics to probe into finding which dimensions of the NSWQT model teachers rated highest and least.

Research question 2 was also analyzed using descriptive statistics, mainly, means and standard deviations to achieve its objective which was to determine the least and dominant personality trait exhibited by economics teachers. No scale was created for this assessment. The personality dimension with the highest mean was adjudged, the predominant, and the trait with the least mean was termed as the least present. The mean ranges for the statements on teacher personality were scored as (Strongly Agree = 1, Agree = 2, Uncertain = 3, Disagree = 4 and Strongly Disagree = 5). A criterion value of 3.00 was established for the scale. To obtain the criterion value (CV=3.00), the scores were added together and divided by the number in the scale (1+2+3+4+5= 15/5=3.00). A mean score of 3.0 or higher shows agreement with the statements, while one below 3.0 indicates disagreement with the claims. Standard

deviations measured the dispersion of the responses as they were gathered from the respondents. A standard deviation of 1 and above represents respondents' heterogeneous responses while a standard deviation value of below 1.00 is considered as a response clustered to the mean score.

Also, hypothesis one was analyzed using inferential statistics, specifically, the multiple linear regression was used to determine the influence of the Five-factor model on economics teacher effectiveness. The significance level of .05 was set. Hence, dimension(s) with sig values equal to or less than .05 was considered as having a significant influence on teacher effectiveness. Moreover, research hypotheses 2 and 3 were analyzed Kruskal Wallis H Test, and Mann-Whitney U test respectively. The aim of hypothesis 2 was to measure whether significant differences existed between teacher experience and teacher effectiveness, while hypothesis 3 aimed at measuring whether a significant difference existed between economics teachers' effectiveness based on their gender. In the same way, a significance level of .05 was set. Hence, dimension(s) with sig values equal to or less than .05 was considered as having a significant difference between either teacher experience or gender on teacher effectiveness. The data was presented using tables and figures.

Table 3: Summary of Data Analysis

Research Questions / Hypothesis	Data Analysis Technique
What is the effectiveness level of economics teachers from both students and teachers' perspectives in the Central Region?	Mean and standard Deviation
Which is the least and dominant big five Personality domains among economics teachers in the Central Region?	Mean and standard Deviation
The Big five personality dimensions (openness, conscientiousness, extraversion, agreeableness and neuroticism) has no statistically significant influence on economics teachers' effectiveness.	Multiple Linear Regression

Table 3: Continued

There is no statistically significant difference in Economics teachers' effectiveness based on their teaching experience.	Kruskal Wallis H Test
There is no statistically significant difference in economics teachers' effectiveness based on their gender.	Mann-Whitney U test

Source: Author's construct

Chapter Summary

The study employed a cross-sectional survey design and a quantitative methodology. The study's accessible population was made up of Form 3 students from the Central Region. The data needed for the study was gathered via questionnaires, and the respondents were chosen using basic random, quota, and purposive sampling techniques. The Department of Business and Social Sciences submitted a cover letter that was used to get access to the schools involved in the data collection. The University of Cape Coast's Institutional Review Board (IRB) also provided ethical clearance. Frequency distributions, means, and standard deviations were used as descriptive statistics to evaluate the demographic data and respond to research questions 1 and 2. Multiple linear regression was used to assess hypothesis 1, the Kruskal Wallis H Test to examine hypothesis 2, and the Mann-Whitney U Test to examine hypothesis 3. The presentation and discussion of the facts were covered in chapter four, which came after.

CHAPTER FOUR

RESULTS AND DISCUSSION

Overview

The purpose of the study is to evaluate both the effectiveness and teaching styles of senior high school economics teachers in Ghana. In conducting the investigation, a quantitative research methodology was employed. This chapter is split into two main sections. While the primary findings that address the study questions are presented in the second half, the demographic data of the respondents is contained in the first part.

Demographic Profile of Respondents

This section is devoted to analyzing the demographic variables of the respondents. Tables 4 and 5 show the results of frequency and percentage analysis on the data obtained.

Table 4: Background Information of Students

Variable	Subscale	Freq.	%
Gender	Male	257	42.8
	Female	343	57.2
Course of Study	General Arts	380	63.3
	Home Economics	39	6.5
	Business	181	30.2

Source: Fieldwork (2022)

Table 4 presents the background information of students (N = 600). Table 3 shows that out of 600 students who took part in the survey, 257 (42.8%) were male and 343 (57.2%) were female, placing the female respondents in the majority. The disparity in the genders has no adverse effect on the results that were gathered since they were fairly represented. This finding is worth noting because it shows that the campaign for girl child education is yielding good fruits in Ghana and needs to be continued. Also, out of the 600 students, 380(63.3%) read General Arts, 39(6.5%) read Home Economics, and

181(30.2%) read Business, hence, putting the Arts students in the majority with Home Economics students being the least represented course of study. This statistic does not represent the true picture of course categorization in the selected schools since the researcher did not place premium on sampling based on courses of study. Consequently, it must be noted that the variations in courses of study have no influence on the results of the study.

On the other hand, this statistic is very relevant in the sense that it gives us a general idea of how some courses are more preferred to others. Following the recent Business programme attrition problem, many students prefer to read General Arts for the reason that it gives the option of pursuing nursing after completion. Again, having majority of the students reading Arts as a course explains why majority of the respondents are females. In general, female students normally prefer and thrive in fine arts and the case of Ghana is no different. This could explain why female students dominated in Arts classes. Only form three students took part in the study for reasons well-articulated in the previous chapter. The representation is good because form three students have learnt enough content and have experienced their teachers for a long period and stand a good chance to evaluate their effectiveness or otherwise as compared with form one and two students.

Table 5: Background Information of Economics Teachers

Variable	Subscale	Freq.	%
Gender	Male	83	68.0
	Female	39	32.0
Academic Qualification	Bachelors	92	75.4
	Masters	30	24.6
Professional Qualification	PGDE	24	19.7
	B.Ed.	90	73.8
	M.Ed.	8	6.6
Teaching Experience (in years)	5 years and below	52	42.6
	6-10	36	29.5
	11-15	12	9.8
	16-20	13	10.7
	21 and above	9	7.4

Source: Fieldwork (2022)

The background details of the economics teachers who responded to the survey (N = 122) are shown in Table 5. The majority of the teachers who participated in the survey, 83(68.0%), were men, while 39 were women (32.0%). This disparity in male and female representation has no adverse effect on the findings that emerged. However, this has given a signal that the teaching field or to better put it, the academia (especially, economics discipline) is still male-dominated. This is a wake-up call to stakeholders to encourage more females to pursue teaching as a career path and even higher learning in order to secure lucrative and fulfilling careers in academia. This will help bridge the gender gap that exists among Economics teachers in the country. Besides, less privileged females should be encouraged and supported, financially to pursue higher education. This implies that government policies must be made more favourable for individuals who want to establish Non-governmental Organizations to take up such mantles to support the girl-child.

In Table 5, majority of the teachers, representing 92(75.4%) were Bachelor's Degree holders whereas, 30(24.6%) had Master's Degree in terms of academic qualification. In Ghana, the minimum academic qualification

required for employment by Ghana Education Service (GES) at the Senior High School level is a bachelors' degree in the specific area. The results indicate that the teachers teaching in the various schools are highly qualified in terms of academics, since they all meet the minimum qualification requirement. None of the teachers in the schools surveyed had a PhD in Economics. However, it is worth stating that the teachers are committed to personal development which is indicated by 30(24.6%) being masters holders. The high number of degree holders might have been accounted for by the recent recruitment of teachers in the year 2021. This assertion could be justified by having the greater number of teachers to be below five (5) years or below in terms of teaching experience.

Moreover, in terms of professional qualification, majority 90(73.8%) of the teachers were holders of Bachelor of Education (B. Ed). Again, the minimum professional qualification required for employment by GES is Bachelor of education in the specific field. Also, 24 of the teachers representing (19.7%) were holders of the Post Graduate Diploma in Education (PGDE). This professional certificate is issued to individuals who have completed the regular bachelor's degree without studying education. An alternative arrangement is this one-year post graduate programme that qualifies one to be a professional teacher. Hence, it also gives an individual the minimum professional qualification. The least number of teachers representing 8(6.6%) were Master of Education (M.Ed.) holders and had the highest professional qualification. Based on the results, there were no unqualified teachers in the surveyed schools. Hence, all the teachers who partook in the survey were professionals. It implies that efforts of the Ministry of Education and GES to eliminate unqualified

teachers from the teaching field is bearing fruits, which is worth commending. Besides, the teachers somehow show interest in professional development.

Generally, teacher experience really matters when the topic of quality education is raised. Thus, the experiences of teachers go a long way in shaping their professional practices. The GES does not place a premium on teaching experience as a criterion for selection into service, hence fresh graduates with no field experiences (apart from on-campus and off-campus teaching practices) are eligible. This is probably due to the rigorous and efficient nature of pre-service training students receive before graduating as professionals. Based on the results, majority of the teachers 52(42.6%) have been in the teaching profession for five (5) years and below. This category might have been the highest because of the recent recruitment embarked upon in 2021 by GES which involved many fresh graduates. 36 of the teachers, representing 29.5% have been in the teaching profession between 6-10 years. Further, the age category of 11-15years had 12 teachers representing 9.8%. Also, 13 teachers representing 10.7% were in the 16-20years age category. 21years and above was represented by 9(7.4%). The result shows that about half of the teachers in the Senior High School have over five years teaching experience. As a result, they have the experience needed to ensure that the students are fully equipped for academic excellence.

Presentation of Main Results

The key findings of the study are discussed in detail in this section. The study's findings are reported in the following for the purpose of formulating policy.

Research Question 1: What is Economics Teachers' Level of Effectiveness from Students' and Teachers' Perspective?

Research question one sought to determine the effectiveness levels of teachers, teaching Economics from both students' and teachers' perspective. The rationale for this research question was to determine whether Economics teachers were very effective or not in their instructional delivery in the classroom. In order to triangulate the findings from teachers' perspective, the researcher collected data from students as well. This is due to the fact that data about teacher effectiveness from students has been confirmed to be a credible source. According to earlier research, economics teachers who are both in training and currently teaching the subject are both effective. However, these studies relied on data from only students. Lumadi and Acquah (2014) found that students are more willing to give their teachers favourable ratings if they are given the chance, hence, the validity of such assessments is questioned. As a result, the current study advances knowledge by assessing effectiveness from the viewpoints of both teachers and students. The results have been presented according to the three constructs in the NSWQT model in the order of IQ, QLE, and SIG. The results are presented from the perspective of students and teachers in table 6, 7, 8, 9, 10, and 11.

Table 6: Economics Teachers' Level of Effectiveness based on Intellectual Quality Dimension from Students' and Teachers' Perspective

Statement	Students		Teachers	
Preamble: I or my teacher	Mean	SD	Mean	SD
Explain(s) core Economics concepts to students'/my understanding	3.83	1.26	4.66	0.57
Express(es) my understanding of core concepts in Economics when teaching	3.69	1.32	4.52	0.81
Involve(s) students/me in explaining core Economics concepts.	3.66	1.38	4.61	0.54
Help(s) students/me to discover new knowledge in Economics on their/my own.	3.58	1.35	4.15	0.78

Table 6: Continued

Encourage(s) me to critique the information he/she gives in class.	3.62	1.28	4.21	0.85
Permit(s) students/me to express their/my opinion.	4.07	1.20	4.47	0.66
Help(s) students/me to differentiate the meaning of concepts in Economics from everyday use.	3.63	1.28	4.33	0.87
Help(s) students/me to use different forms such as graphs and other mathematical functions to explain concepts.	3.45	1.44	4.65	0.66
Encourage(s) students/me to use various forms of communication (oral, written, iconic (diagrams, and symbols) to elaborate and discuss concepts learned in Economics.	3.60	1.34	4.45	0.55
Mean of Means/ Average Standard Deviation	3.68	1.32	4.45	0.70

Scale:1.00-1.49(Highly Ineffective);1.50-2.49(Ineffective); 2.50-3.49(Fairly Effective); 3.50-4.49 (Effective); 4.50-5.00 (Highly Effective).
Source: Fieldwork (2022).

In Table 6, the mean of means of 3.68 shows that economics students rated their teachers as effective (M = 3.68, SD = 1.32) in their teaching in terms of their ability to exhibit intellectual quality. The detailed result on intellectual quality indicated that students believed their teachers were successful in fostering their intellectual development throughout Economics lessons. Since, the standard deviation was above, it implies that the responses of students were heterogeneous. This means that students had diverse opinions on the effectiveness of their teachers. The result implies that Economics teachers are effective based on the students sampled. Furthermore, teachers' overall mean (M = 4.45) indicated that teachers rated themselves as highly effective on intellectual quality. The standard deviation (SD = 0.70) indicates that the opinions of teachers on the issues of their effectiveness were closely related. This means they strongly agree that they are highly effective in enhancing students' intellectual quality.

In the case of the students, the highest mean recorded under the intellectual quality was (M = 4.07, SD = 1.2) and was related to the statement, my teacher permits me to express my opinion. Given the constant shift toward the constructivist theory of teaching, it is becoming increasingly clear that in the classroom, what teachers do, does not matter as much as what students do. The teachers' ability to allow students to express their opinions freely in Economics lessons enhances their intellectual capacity, according to students. It could be inferred that students are motivated to do their own research since there will be an opportunity for them to contribute in class. The culminating effect of this would increase knowledge (discovery knowledge) and hence, increase performance.

On the contrary, the smallest mean recorded (M = 3.58, SD = 1.35) was associated with the statement, my teacher helps me to discover new knowledge in Economics on my own. This implies that when it comes to their teachers' ability to assist them to discover new knowledge in the subject, they believe they receive the less assistance compared to the other aspects they were questioned on. Even though students consider this aspect the least, teachers are generally effective in helping their students discover new knowledge.

In terms of the teachers' rating, the highest mean recorded under the intellectual quality was (M = 4.66, SD = 0.57) and was related to the statement, I explain core economics concepts to my students' understanding. From the perspective of teachers, they believe that they are more effective at helping their students understand Economics concepts. The opinions of teachers were largely homogenous on this selection. Hence, economics teachers rated themselves as highly effective in promoting students' understanding. In contrast to the above,

the least mean recorded (M = 4.15, SD = 0.78) was associated with the statement, I help my students to discover new knowledge in Economics on their own. Just like the students, teachers unanimously agreed that although they are effective, intellectual quality rated least.

From the two perspectives, the results show that teachers' and students' rating of intellectual quality differs. Whereas students rate their teachers' ability to permit them to express their opinions as a prime factor that promotes their intellectual quality as the highest, teachers rated their ability to explain economics concepts to their students' understanding as the highest. Such differences in rating may have resulted due to the knowledge gap between students and teachers. It could also result from teachers' subjectivity in their rating as against students' objectivity in their rating. However, both teachers and students rated teachers' ability in helping their students to discover new knowledge in Economics on their own, as lowest.

Table 7: Economics Teachers' Level of Effectiveness based on Quality Learning Environment Dimension from Students' and Teachers' Perspective

Statement	Students		Teachers	
Preamble: I or my teacher	Mean	SD	Mean	SD
Make(s) it clear to students/me the criteria that would be used for assessment (whether class test, assignment or class discussion).	3.74	1.34	4.66	0.61
Ensure(s) that students/I remain on task.	3.73	1.29	4.61	0.52
Make(s) sure that students/I pay attention when teaching.	4.10	1.30	4.61	0.49
Make(s) sure that students/I show interest when teaching.	3.89	1.32	4.70	0.49
Give(s) students/me the assurance constantly that they/I are/am good and that they/I will perform to expectation in Economics.	3.54	1.37	4.60	0.60
Create(s) a positive learning environment within the classroom.	3.82	1.28	4.80	0.40
Clarify (ies) peer support structures within the classroom.	3.51	1.26	4.30	0.50
Promote(s) mutual respect within the classroom.	4.02	1.24	4.82	0.39

Table 7: Continued

Encourage(s) students/me to accept responsibility for their/my learning and for the consequences of their/my behaviours in learning Economics in class.	3.86	1.33	4.72	0.45
My teacher sometimes gives me the option to choose learning activities and assessment criteria.	3.10	1.36	3.56	1.21
Connect(s) new material to past learning and assists students/me to see the continuity in their/my learning over time.	3.39	1.40	4.60	0.68
Mean of Means/ Average Standard Deviation	3.70	1.32	4.54	0.58

Scale:1.00-1.49(Highly Ineffective);1.50-2.49(Ineffective); 2.50-3.49(Fairly Effective); 3.50-4.49 (Effective); 4.50-5.00 (Highly Effective).
Source: Fieldwork (2022).

In Table 7, the mean of means 3.7 of the constructs shows that Economics students rated their teachers as effective (M = 3.7, SD = 1.32) in their teaching in terms of their ability to create the enabling quality environment to promote students' learning. The standard deviation (SD =1.32) indicated that students' responses were heterogeneous. This means that students did closely agree that their teachers are effective in creating conducive environment for academic work. Hence it can be deduced that Economics teachers are effective, based on the sample studied, in promoting students' learning by creating quality learning environment based on students' perspective.

On the other hand, the mean of means of 4.54 indicated that teachers rated themselves as highly effective in producing quality learning environment. Teachers rated themselves as highly effective in mobilizing a conducive environment for good academic endeavour. Teachers' opinion on the item were homogeneous given the standard deviation (SD = 0.58) which is less than one. Comparatively, teachers rated themselves high than their students.

On the part of students, teachers' ability to make sure they pay attention when teaching (M = 4.10, SD = 1.30) was rated highest among all the items. They believed that for a quality learning environment to exist, teachers should be able to captivate their attention. Without students' attention, it is hardly

possible for a teacher to achieve anything in the classroom. The next item was teachers' capacity to promote mutual respect within the classroom (M = 4.02, SD = 1.24).

Quite the opposite, the least mean recorded on the quality learning environment by students was (M = 3.51, SD = 1.26) and was associated with the statement, my teacher clarifies peer support structures within the classroom. Students believe do not as effectively as in other attributes communicate clearly, the support structures available in the classroom. This means that although their teachers are generally effective in creating quality environment, this aspect takes the least focus. However, it does not mean their teachers are ineffective at all at clarifying the support systems available in the classroom. It only means that the effectiveness level is relatively low.

On the part of the teachers, the highest mean recorded under the quality learning environment was (M = 4.82, SD = 0.39) and was in relation to the statement, I promote mutual respect within the classroom. Based on the results, teachers rated their ability to promote mutual respect as the most important attribute that makes them highly effective in creating the quality environment that makes learning possible. The teachers' responses were homogeneous considering the standard deviation associated with the mean. Regarding the perspective of teachers, learning might not be possible without mutual respect.

Closely related to promoting mutual respect by teachers is the ability to create a positive learning environment within the classroom (M = 4.80, SD = 0.40). Teachers also believed that they are highly effective in creating a nurturing and positive environment for their students. They had confidence in

this ability and had similar opinions on it. This is evidenced by the standard deviation.

In contrast, the least mean value recorded was associated with the statement, I clarify peer support structures within the classroom and it was (M = 4.30, SD = 0.50). Teachers rated themselves as highly effective in all the other areas of quality learning environment but rated themselves as simply effective on this particular attribute. Teachers still believe they are effective in clarify peer support structures within the classroom, however, they place the least premium on it. Besides, the extent of variation in teachers' opinions is relatively very low as evidenced by the associated standard deviation value. The result is worth noting because students also pointed out the exact attribute as the least of their teachers' abilities.

Comparatively, the opinions of teachers and students on the quality learning environment differ slightly. This means they hold similar views on teachers' effectiveness in terms of the quality learning environment. For instance, the second-best attribute selected by students was also chosen by the teachers as the best attribute. That was teachers' ability to promote mutual respect within the classroom. This means that both students and teachers agree that teachers are indeed effective in promoting mutual respect within the classroom. Further, both teachers and students acknowledged that teachers' ability to clarify peer support structures within the classroom, was the least in terms of effectiveness. On the other hand, although both teachers and students held similar opinions on what constituted quality learning environment, teachers generally rated themselves higher than students in all cases.

Table 8: Economics Teachers' Level of Effectiveness based on Significance Dimension from Students' and Teachers' Perspective

Statement	Students		Teachers	
Preamble: I or my teacher	Mean	SD	Mean	SD
Use(s) what I/he or she have/has taught/learned and general things students/I already know to help them/me understand new concepts in Economics.	3.85	1.38	4.75	0.46
Use(s) my/his/her knowledge of other cultures to help remove certain wrong notions about other cultures from students/my mind.	3.54	1.30	4.42	0.82
Help(s) students/me to integrate core concepts from various subject areas in order to help them/me understand concepts they/I learn in Economics.	3.55	1.32	4.59	0.68
Encourage(s) students/me to respect the views of other students from different cultural backgrounds.	4.00	1.25	4.71	0.49
Value(s) different cultural and social points of view from students, publicly.	3.91	1.21	4.59	0.63
Relate(s) Economics concepts to practical things outside the classroom.	4.07	1.21	4.75	0.49
Help(s) students/me to see the usefulness of the information they/he/she receive/gives in class.	4.03	1.14	4.58	0.68
Encourage(s) students/me to come out with their/my own explanation and definition of concepts.	4.02	1.24	4.67	0.60
Mean of Means/ Average Standard Deviation	3.87	1.26	4.63	0.61

Scale:1.00-1.49(Highly Ineffective);1.50-2.49(Ineffective); 2.50-3.49(Fairly Effective); 3.50-4.49 (Effective); 4.50-5.00 (Highly Effective).

Source: Fieldwork (2022).

In Table 8, the overall mean of 3.87 illustrates that economics students rated their teachers as effective (M = 3.87, SD = 1.26) in their teaching with respect to the significance dimension of the NSWQT model. This means that students perceive their teachers as effective in relating Economics lessons to real-world situations and the workplace. The responses of students on this

dimension did not vary substantially and this is evidenced by the standard deviation associated with the responses. Therefore, it can be deduced that teachers in the Central Region effectively promote students' learning by relating concepts taught in economics to everyday life and the world beyond the classroom based on students' perspectives.

Moreover, the overall mean of teachers indicated that Economics teachers rated themselves as highly effective (M = 4.63, SD = 0.61) in their teaching with respect to the significance dimension of the NSWQT model. This result implies that teachers largely rated themselves as highly effective in making Economics lessons very practical to their students. The responses to this dimension suggested that teachers did not vary substantially in their opinions since the standard deviation was very small. Thus, it can be inferred from the results that teachers in the Central Region effectively promote students' learning by relating concepts taught in economics to everyday life and the world beyond the classroom based on their perspective. Once again teachers rated themselves higher than students did. This could be the case that students may be more objective in their rating than teachers.

In terms of students' rating, the highest mean recorded under the significance dimension was (M = 4.07, SD = 1.21) and was associated with the statement, my teacher relates economics concepts to practical things outside the classroom. Students believed that their teachers make economics lessons practical by relating them to things they are familiar with outside the classroom. This could have resulted from the fact that all teachers who part took in the survey were all professionals and possessed some level of experience in teaching. Ordinarily, this is one area teachers may struggle with. It is therefore

worth noting that students themselves have confidence in teachers' ability to make their lessons practical. It may be concluded that teachers in the Central Region successfully apply economics principles to real-world situations.

Quite the reverse, the lowest mean recorded under the significance dimension was (M = 3.54, SD = 1.30) and was associated with the statement, my teacher uses his or her knowledge of other cultures to help remove certain wrong notions about other cultures from my mind. The results mean that students comparatively put less confidence in their teachers in terms of their capacity to help them deal with stereotypic ideas about other cultures. It does not mean they view their teachers as ineffective but they have less confidence in their ability. Closely related to this is teachers' ability to help students integrate core concepts from various subject areas in order to help them understand concepts they learn in Economics (M = 3.55, SD = 1.32). Again, students put little confidence in their teachers' ability to help them transfer knowledge. It does not also mean teachers are not effective, it only means students have less confidence as compared to other areas of the significant dimension.

In terms of the teachers' rating, the highest mean recorded under the significance dimension was (M = 4.75, SD = 0.46) and (M = 4.75, SD = 0.49) and was related to the statements, I use what I have taught and general things students already know to help my students understand new concepts in Economics; and I relate Economics concepts to practical things outside the classroom, respectively. Teachers believe they are highly effective in building on students' previous knowledge as well as making lessons practical by relating it to issues outside the classroom. This is because the two attributes are highly

related. It is therefore not surprising that the teachers rated themselves equally on these two attributes.

The attributes are related such that if a teacher is not skilled at relating concepts to things outside the classroom, it will be difficult to for a teacher to effectively relate previous concepts taught or connects issues outside the classroom to the concepts to be learnt. Moreover, there was relatively small variations in the opinions of teachers which is indicated by the two standard deviations recorded for the two attributes. The results revealed that teachers in the Central Region effectively use what they have taught and general things students already know to help them understand new concepts in Economics and are able to relate Economics concepts to practical things outside the classroom. However, the smallest mean recorded was (M = 4.42, SD = 0.82) and was related to the statement, I use my knowledge of other cultures to help remove certain wrong notions about other cultures from the minds of my students. The results coincide with students' results which also revealed that their teachers do the least when it comes to helping them dismiss misconceptions about different cultures from their minds.

Comparatively, the opinions of teachers and students on the significance dimension are the same. Teachers and students both rated the statement, I relate Economics concepts to practical things outside the classroom, as the highest attribute. On the other hand, both teachers and students rated the statement, I use my knowledge of other cultures to help remove certain wrong notions about other cultures from the minds of my students as the least attribute teachers exhibit. The uniformity in the result could be related to the indicators that make up the significance dimension which focus on the affective domain than

cognitive, hence, easy to recognize, even by students. Notwithstanding the similarity in rating, teachers still rated themselves higher than their students in all instances.

The researcher went further ranked the dimensions of the NSWQT model based on students and teachers' perspectives. The researcher wanted to find out whether teachers and students vary in their rating based on the three dimensions. Table 9 presents ranking of the dimensions of NSWQT model from students' perspective.

Table 9: Ranking of the Dimensions of NSWQT Model from Students' Perspective

Teacher Effectiveness Domains	Mean	SD	Interpretation
Intellectual Quality	3.68	1.32	Effective
Quality Learning Environment	3.70	1.32	Effective
Significance	3.87	1.26	Effective

Scale:1.00-1.49(Highly Ineffective);1.50-2.49(Ineffective); 2.50-3.49(Fairly Effective); 3.50-4.49 (Effective); 4.50-5.00 (Highly Effective).
Source: Fieldwork (2022).

Table 9 presents the ranking of the three domains of the NSWQT model from students' perspective. After it had been established by Economics students that their teachers are effective, the study continued to determine which of the domains rated highest and the least. Among the three domains, the highest mean recorded was (M = 3.87, SD = 1.26), and was linked to the significance domain. This means that teachers are able to link what they teach in the classroom to relevant examples in the real world. The fact that all teachers who took part of the study were professionals could have contributed to this finding. On the other hand, the least recorded mean (M = 3.68, SD = 1.32) was associated with the intellectual quality domain. Even though this domain was the least rated, the mean value suggests that teachers are still effective in promoting intellectual

quality in their lessons. Table 10 presents ranking of the dimensions of the NSWQT model from teachers' perspectives.

Table 10: Ranking of the Dimensions of NSWQT Model from Teachers' Perspective

Teacher Effectiveness Domains	Mean	SD	Interpretation
Intellectual Quality	4.45	0.70	Effective
Quality Learning Environment	4.54	0.58	Highly Effective
Significance	4.63	0.61	Highly Effective

Scale:1.00-1.49(Highly Ineffective);1.50-2.49(Ineffective); 2.50-3.49(Fairly Effective); 3.50-4.49 (Effective); 4.50-5.00 (Highly Effective).
Source: Fieldwork (2022).

Table 10 presents the ranking of the three domains of the NSWQT model from teachers' perspective. After it had been established by Economics teachers that they are effective, the study continued to determine which of the domains rated highest and the least. The domain that rated highest among the three was the significance domain which had a mean of (M = 4.63, SD = 0.61). The mean criteria set implies that teachers rated themselves as highly effective in the significance domain. This finding confirms students' opinion that their teachers are highly effective in the significance domain. This means that teachers are able to effectively relate what they teach in the classroom to the relevant example in the real world. On the other hand, the least recorded mean (M = 4.45, SD = 0.70) was associated with the intellectual quality domain. Even though this domain was the least rated, the mean value suggests that teachers are still effective in promoting intellectual quality in their lessons.

Comparatively, both teachers and students ranked the three dimensions in the same order with significance being the highest, followed by quality learning environment, and intellectual quality being the least. Notwithstanding the similarity in the order of ranking, teachers invariably ranked themselves higher than their students.

Research Question 2: What is the Least and Dominant Big Five Personality Domains among Economics Teachers?

Research question two sought to determine which of the Big Five personality traits is dominant and which is the least among economics teachers in the Central Region. Personality researchers have asserted that the kind of personality a teacher possesses has the ability to predict his or her effectiveness. This research question was an attempt to identify the least and dominant personality domains among Economics teachers. That is, if more teachers possess personality types that support teachers' ability to teach then it will give more insight to why both students and teachers might rate teachers either as high or less effective. The results are presented from the perspective of students and teachers in Table 11.

Table 11: The Least and Dominant Big Five Personality Domains among Economics Teachers (Aggregated)

Statement	Mean	SD
Openness		
I am someone who is original (comes up with new ideas)	4.49	0.80
I am someone who is curious about many different things	4.11	0.78
I am someone who is ingenious and a deep thinker	4.51	0.65
has an active imagination	4.49	0.73
I am someone who is inventive	4.01	1.03
I am someone who values artistic and appealing experiences	3.98	1.00
I am someone who prefers work that is routine	2.95	1.34
I am someone who likes to reflect (play with ideas)	4.29	0.64
I am someone who has few artistic interests	2.79	1.19
I am someone who is sophisticated in art, music, or literature	3.13	1.45
	3.88	**0.96**
Agreeableness		
I am someone who tends to find fault with others	4.34	0.88
I am someone who is helpful and unselfish with others	4.37	1.07
I am someone who starts quarrels with others	3.93	1.41
I am someone who has a forgiving nature	3.82	1.51
I am someone who is generally trusting	4.31	0.97
I am someone who can be cold and indifferent	4.19	1.15
I am someone who is considerate and kind to almost everyone	3.73	1.34
I am someone who is sometimes rude to others	4.20	0.92
I am someone who likes to cooperate with others	3.75	1.31
	4.07	**1.17**
Extraversion		
I am someone who is a talkative	2.50	1.26
I am someone who is reserved	2.34	1.30
I am someone who is full of energy	4.40	1.03
I am someone who generates a lot of enthusiasm	4.47	0.68

Table 11: Continued

I am someone who tends to be quiet	2.24	1.16
I am someone who has a self-assured personality	4.05	1.11
I am someone who is sometimes shy	3.13	1.47
I am someone who is outgoing (sociable)	3.81	1.13
	3.37	**1.14**
Conscientiousness		
I am someone who does a thorough job	4.19	1.11
I am someone who can be somewhat careless	4.19	1.28
I am someone who is a reliable worker	4.49	0.91
I am someone who tends to be disorganized	3.96	1.24
I am someone who tends to be lazy	3.04	1.26
I am someone who perseveres until the task is finished	4.08	1.12
I am someone who does things efficiently	4.52	0.75
I am someone who makes plans and follows through with them	4.08	1.30
I am someone who is easily distracted	4.22	0.93
	4.09	**1.10**
Neuroticism		
I am someone who is depressed	1.89	1.09
I am someone who is relaxed, handles stress well	1.71	0.95
I am someone who can be tense	3.29	1.24
I am someone who worries a lot	2.44	1.17
I am someone who is emotionally stable (not easily upset)	1.83	0.98
I am someone who can be moody	3.32	1.24
I am someone who remains calm in tense situations	2.21	1.04
I am someone who gets nervous easily	2.61	1.24
	2.41	**1.12**

Source: Fieldwork (2022)

Table 11 presents the least and dominant Big-Five personality domains among economics teachers in the Central Region. A comparison of the mean values derived from the analysis indicated that the conscientiousness personality traits of the Big-Five inventory dominated among Economics teachers. This was represented by a mean of means (M = 4.09, SD = 1.10). The highest mean recorded under the conscientious domain was related to the statement, I am someone who is a reliable worker and was represented by (M = 4.49, SD = 0.91). On the other hand, the least mean and standard deviation values recorded (M = 3.04, SD = 1.26), are associated with the statement, I am someone who tends to be lazy.

Again, a comparison of the mean values derived from the analysis indicated that the neuroticism personality traits of the Big-Five inventory represented the least personality trait among Economics teachers. This was

represented by (M = 2.41, SD = 1.12). The highest mean recorded under this dimension (M = 3.32, SD = 1.24) is associated with the statement, I am someone who can get moody. On the contrary, the least mean score (M = 1.71, SD = 0.95) recorded is associated with the statement, "I am someone who is relaxed, handles stress well". This implies that few of the teachers who exhibited neurotic characteristics appeared to be emotionally stable.

Hypothesis 1: Influence of Big-Five Personality Dimensions on Teacher Effectiveness

The first null hypothesis formulated for the study stated that "the Big-five personality dimensions have no statistically significant influence on economics teachers' effectiveness". The intuition behind the formulation of this hypothesis was to assess how each dimension contributed to effectiveness in the classroom. That is, the researcher wanted to find out whether the Big Five personality trait has any influence at all on teacher effectiveness; whether such influence is negative or positive (that is, if there is an influence); and finally, whether the influence is statistically significant. Previous studies (Kim et al., 2019; Kim, Dar-Nimrod & MacCann, 2018; Ezzi, 2019) failed to agree on the effects sizes as well as the direction of effects or influence.

In order to confidently run the multiple linear regression, several assumption underlining the use of regression needed to be met. The assumptions include linearity, multicollinearity, homoscedasticity, and independent observations. All these assumptions were checked and satisfied before proceeding to run the multiple regression.

Multicollinearity

To satisfy the assumption of multicollinearity, both the correlation table and coefficient tables were used. The independent variables are said to be highly correlated when their correlation coefficients are +/- 1.0. When the independent variables are highly correlated, it makes it difficult to distinguish the contributions of the individual predictor variables on the dependent variable. Hence, the test for multicollinearity helps to determine whether the independent variables are not highly correlated. The ideal situation is that the correlation coefficients representing the relationships among the predictors should be - 0.7 $\geq r \leq 0.7$ (Young, 2017). From Table 15 below, all the correlation coefficients are approximately between -0.7 and 0.7. Therefore, multicollinearity assumption is satisfied. This is confirmed by the values of Variance Inflation Factor (VIF) and Tolerance value found in the coefficients table (Table 16), where the tolerance value is above 0.2 and the VIF is below 5 (Montgomery, 2001).

Independent observations

The assumption of independent observation suggests that the values of the residuals are independent. Thus, there should be no underlying relationship between the predictor variables. The Durbin-Watson value is used to determine independent observation and must be between 0 and 4 (Montgomery, 2001). Based on this study, the Durbin-Watson value from Table 16 was 1.25 which satisfy the assumption. Hence, there is independent observation among the independent variables. The value of 1.25 specifies that there is no self-correlation which is positive self-correlation. This means that the residuals from an ordinary least-squares regression are not self-correlated.

Homoscedasticity

This assumption seeks to check that the predictor variables have the same impact on the dependent variables for all levels of the variables. In the current study, it was important to ensure that the all the dimensions of the Big five personality had the same influence on teacher effectiveness. To check for the presence of homoscedasticity, the scatterplot must be randomly distributed. This was achieved in the current study since the scatter plot was randomly distributed as evidenced in *Figure 2*. No obvious pattern was found in the scatterplot. The distribution of scores were evenly distributed both above and below the line of fit and from low to higher values. Hence, assumption was met.

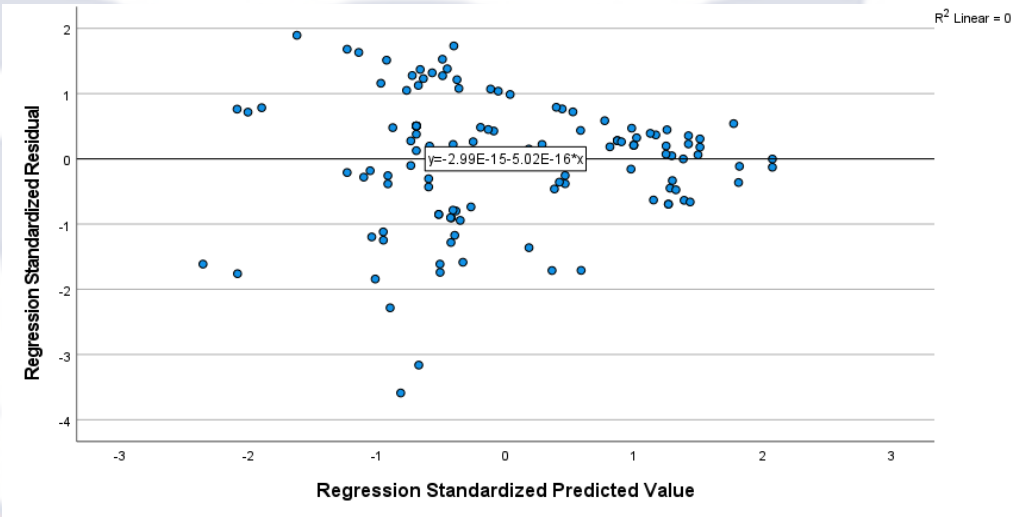

Figure 2: Scatterplot for Teacher Effectiveness
Source: Fieldwork (2022)

Linearity

The linearity assumption requires that there is a linear relationship between dependent and independent variables. Based on the P-P plot the scores closely clustered around the diagonal normal curve. This means the assumption was met as shown in *Figure 3* below.

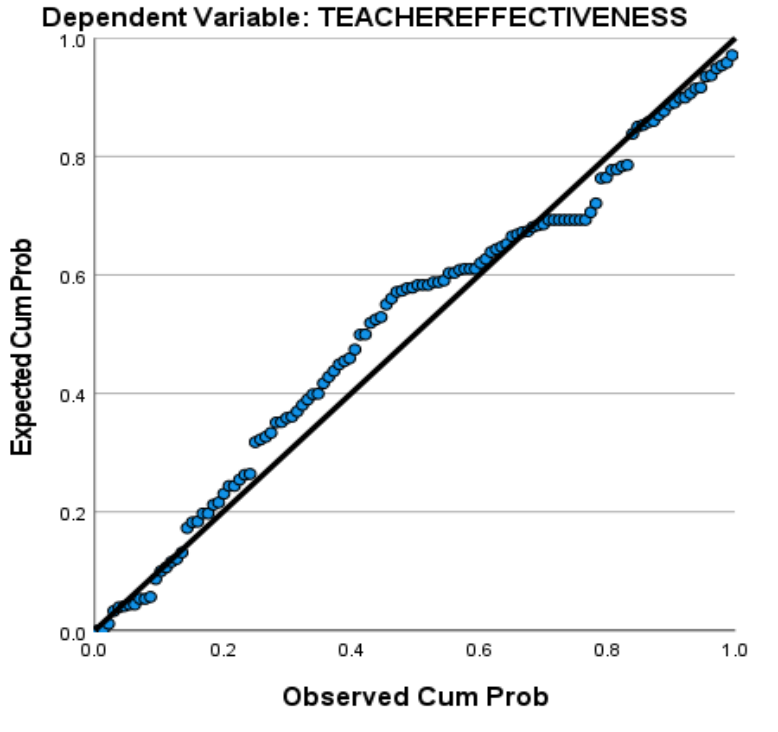

Figure 3: Normal P-P Plot of Regression Standardized Residual
Source: Fieldwork (2022)

Table 12: Correlation among Personality Dimensions and Teacher Effectiveness

	T. EFF	OPN	CON	EXT	AGR	NEUR
T. EFF	1					
OPN	.471	1				
CON	.162	.207	1			
EXT	.209	.306	.314	1		
AGR	-.167	.371	.550	.455	1	
NEUR	-.257	-.507	-.217	-.390	-. 428	1

Source: Fieldwork (2022)
Note: T. EFF = Teacher Effectiveness; OPN = Openness; CON = Conscientiousness; EXT = Extraversion; AGR = Agreeableness; NEUR = Neuroticism

Based on the results in Table 12, it can be inferred that personality dimensions (Openness, Conscientiousness, Extraversion, and Agreeableness) are positively correlated with one another and teacher effectiveness. Conversely, they are negatively correlated to Neuroticism. Also, there exists a negative correlation between teacher effectiveness and neurotic personality dimension. Since the correlation coefficients approximately lie between $-0.7 \geq r \leq 0.7$, it is fit to run multiple linear regression. Therefore, Table 13 presents the

result of the multiple linear regression between the big five personality traits and economics teacher effectiveness.

Table 13: Influence of Big Five Personality Dimensions on Economics Teachers' Effectiveness

Variable	B	SE	Beta	t	Sig	T	VIF
(Constant)	102.451	13.770		7.440	.000		
Openness	.815	.180	.433	4.526	.000	.717	1.394
Conscientiousness	.194	.169	.119	1.149	.253	.608	1.646
Extraversion	.168	.208	.075	.807	.421	.761	1.313
Agreeableness	-.267	.231	-.171	-1.155	.250	.299	3.343
Neuroticism	-.198	.252	-.107	-.787	.433	.355	2.814
R	= .488			F (5, 116)	= 7.249		
R square	= .238			Sig.	= .000		
Adj R square	= .205			DW	= 1.251		

Source: Fieldwork (2022)

The findings of the multiple linear regression analysis on the impact of the Big Five personality traits on the efficacy of economics professors are presented in Table 13. The dependent variable was teacher effectiveness, and the independent variable was instructors' Big Five personality traits (openness, conscientiousness, extraversion, agreeableness, and neuroticism). All of the underlying assumptions have been satisfied based on the results in Table 13.

According to Table 13, the dependent variable and the predictor factors (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism) have a correlation coefficient of r =.488. This suggests a favorable association between the predictor variables and instructor effectiveness. The coefficient of determination, R2, which is equal to.238 displays the variation in the dependent variable and how it is accounted for by the variability in the predictor variables. The variation in the predictor variables thus accounts for 23.8% of the variation in the dependent variable, according to the R2 statistic. This suggests that other variables not examined in this study account for 76.2% of the variation in the dependent variable. The efficiency of teachers may also be impacted by other

elements like class size, working circumstances, and the setting of the school, among others. Also, the Adjusted R^2 = .205 gives a clue to how well the model generalizes to the population.

To determine the contribution of the predictor variables in the prediction of the dependent variable (teacher effectiveness), Beta (β) values were computed. The constant beta value of 102.451 indicates teacher effectiveness level when all the predictor variables are held constant. Further, the results established that Openness dimension of Economics teachers has a significant positive influence on their effectiveness in the classroom (β = .815, t = 4.526, *p* = .000). The positive correlation between openness and teacher effectiveness implies that the more open a teacher's personality is, the more he or she can be effective in the classroom. Given the model, openness is the highest predictor of effectiveness. It also means a 0. 815 changes in a teacher's level of openness leads to a unit (1) change in teacher effectiveness, all other factors held constant. Moreover, the results indicated that the Conscientious dimension has a positive contribution to teacher effectiveness β = .366 (t = 1.149, *p* = .253) but it was not statistically significant. This means that even though conscientiousness has a positively correlate with teacher effectiveness, a change in teacher effectiveness does not depend on changes in economics teachers' level of conscientiousness. Again, considering the contribution of Extraversion dimension, the results revealed a positive contribution towards teacher effectiveness β = .168, yet, it was not significant (t = .807, *p* = .421). It therefore implies that a change in Economics Teachers' level of effectiveness is not affected by extraversion dimension of the teachers' personality.

Furthermore, Agreeableness dimension has a negative contribution toward teacher effectiveness β = -.267; and its contribution is not significant (t = -1.155, *p* = .250). Agreeableness personality type is negatively correlated with Economics teachers' effectiveness which means that the more agreeable a teacher is, the likelihood that he or she may be less effective. However, the model of this indicates that the agreeableness personality does not predict Economics teachers' effectiveness in the classroom. Finally, the results regarding the contribution of Neuroticism showed that Neuroticism contributes β = -.198, which indicates a negative contribution towards teacher effectiveness. The result also found that the contribution of Neuroticism to teacher effectiveness is not significant. The result also means that neurotic personality type is negatively associated with Economics teacher effectiveness, which means the more neurotic a teacher is, the more ineffective the teacher may be. On the other hand, the result indicated that neurotic personality type does not predict Economics teacher effectiveness.

In summary the results presented above indicated that there is a correlation between all the Big Five personality dimension and Economics teachers' effectiveness. However, only the Openness dimension significantly predicted Economics teachers' effectiveness in the classroom. The highest correlation coefficient (β = .815) was associated with the openness personality domain and the least (β = .168) was related to the extraversion personality domain. Besides, apart from openness dimension which was positively correlated with Economics teachers' personality and significant at the same time, two other traits dimensions (conscientiousness and extraversion) also had positive influence whereas, agreeableness and neuroticism had a negative

influence on Economics teachers' effectiveness. Therefore, for effectiveness to improve in Ghanaian Senior High Schools teachers ought to be more open, conscientious, extraverted; less agreeable and neurotic.

Test for Normality

In hypothesis testing, one needs to test the assumptions related to the statistical test necessary for testing a particular hypothesis. According to Pallant (2005), one key assumption that needs to be met is the normality assumption. Table 14 presents the normality test results for the dependent variable (teacher effectiveness) measured from teachers' perspectives.

Table 14: Normality Test Results for Teacher Effectiveness

	Kolmogorov-Smirnov		
	Statistic	Df.	Sig.
Intellectual Quality	.217	122	.001
Quality Learning Environment	.115	122	.001
Significance	.192	122	.001

a. Lilliefors Significance Correction

Source: Fieldwork (2022)

To assess the normality of the dependent variable, the researcher computed the Kolmogorov-Smirnov statistic. The Kolmogorov-Smirnov test for normality assumes the null hypothesis that the data is taken from a normal distribution. The decision rule is that when the sig. value ($p > .05$), then the null hypothesis is accepted – that is, the data is taken from a normal distribution. However, if the sig value ($p < .05$), then we fail to accept the null hypothesis – that is, the data is not normally distributed. Table 8 reveals that the Intellectual Quality, Quality Learning Environment, and Significance are not normally distributed based on the sig values. This is evident from the p-value of .001 ($p < .05$), indicating that the data is not normally distributed. The results, therefore,

imply that the assumption for carrying out parametric tests is defeated. Since the data is not statistically normal, it warrants the use of non-parametric statistical tools to analyze the data. Therefore, the researcher employed non-parametric tests to test the last two hypotheses.

Hypothesis 2: Differences in Economics Teachers' Effectiveness Based on Teaching Experience

The second null hypothesis formulated for the study stated that "there is no statistically significant difference in Economics teachers' effectiveness based on their teaching experience. The rationale for formulating this hypothesis was that some previous studies have opined that the years for which a teacher has taught can give them an upper hand over other colleagues who are equally qualified. Other researchers have also been of the opinion that such an assumption does not hold. These opinions cumulatively suggest that some level of differences exists in teacher effectiveness based on teaching experience, since the major interest of the study lies in non-cognitive factors that affect effectiveness. It is based on the forgoing argument that this hypothesis was formulated to determine whether there is a significant difference in Economics teachers' effectiveness based on their teaching experience. The hypothesis was tested using Kruskal Wallis H Test, and the results were presented in Tables 18 and 19. The respondents were divided into five categories based on their teacher experience (Category 1: 5years and below, Category 2: 6-10years, and Category 3: 11-15years, Category 4: 16-20years, and Category 5: 21years and above).

Table 15: Kruskal Wallis H Test for Teacher Effectiveness based on Teaching Experience

	Teaching Experience	N	Mean Rank
Teacher Effectiveness	5years and below	52	68.67
	6-10years	36	56.78
	11-15years	12	33.17
	16-20years	13	66.19
	21years and above	9	69.94
	Total	122	
Chi-Square			11.313
Df			4
Asymp. Sig.			.023

Source: Fieldwork (2022)

Table 15 presents the Kruskal Wallis test results of teacher effectiveness based on teaching experience. The results revealed that there was a statistically significant difference at the $p<0.05$ level in the teaching effectiveness for the five categories [K (4,117) = 11.313, p = .023]. The result implies that Economics teachers' effectiveness differs based on their teaching experience. The results imply that the number of years for which teachers have taught can make a difference in their level of effectiveness in the classroom. The null hypothesis was rejected based on the results. Even though the results indicate a statistically significant difference between the teaching experience groups, it does not indicate which pair of groups that is.

In order to ascertain which pair of sub-categories of teaching experience significantly differ from each other, a Dunn's post hoc test on each pair of groups was conducted. The result is presented in Table 16 below.

Table 16: Dunn's Post Hoc Tests for Teaching Experience (Years of teaching)

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
11-15years-6-10years	23.611	11.743	2.011	0.044	.444
11-15years-16-20years	-33.026	14.103	-2.342	0.019	.192
11-15years-5years and below	35.506	11.282	3.147	0.002	.016
11-15years-21years and above	-36.778	15.534	-2.368	0.018	.179
6-10years-16-20years	-9.415	11.399	-0.826	0.409	1.000
6-10years-5years and below	11.895	7.638	1.557	0.119	1.000
6-10years-21years and above	-13.167	13.129	-1.003	0.316	1.000
16-20years-5years and below	2.481	10.924	0.227	0.820	1.000
16-20years-21years and above	-3.752	15.276	-0.246	0.806	1.000
5 years and below-21years and above	-1.271	12.718	-0.1	0.920	1.000

Source: Fieldwork (2022) $p < .05$

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

Table 16 presents Dunn's pairwise tests were carried out on teaching experience groups to ascertain whether the groups differ significantly from each other. Based on the results, only the comparison between 11-15years-5years and below was found to be statistically significant (p = .016) in terms of differences. The rest of the comparisons were not statistically significant from each other. Based on *Figure 4*, the adj. sig indicates that only the comparison between 11-15years-5years and below was statistically significant [(p <.05), indicated in blue colour] with all the other comparisons being statistically insignificant (p > .05). the results mean that there is a difference between an Economics teacher who taught for less than 5 years and another Economics teacher who possesses 11-15years of teaching experience.

On the other hand, it means that the differences in the other groups are small and negligible. For instance, there is no notable difference between a teacher who has taught for 16-20years and another who has taught for 21 years

and above. It means that teachers are likely to plateau in their effectiveness levels after certain years of teaching which appears to begin from 16years based on the results. In addition, based on *Figure 4* 21 years and above group ranked highest with 11-15years ranking the least. This also implies that even though there is not much differences between the groups, there is no strict pattern when it comes to teacher effectiveness. That is, the pattern of effectiveness is not chronological across the years of teaching groups.

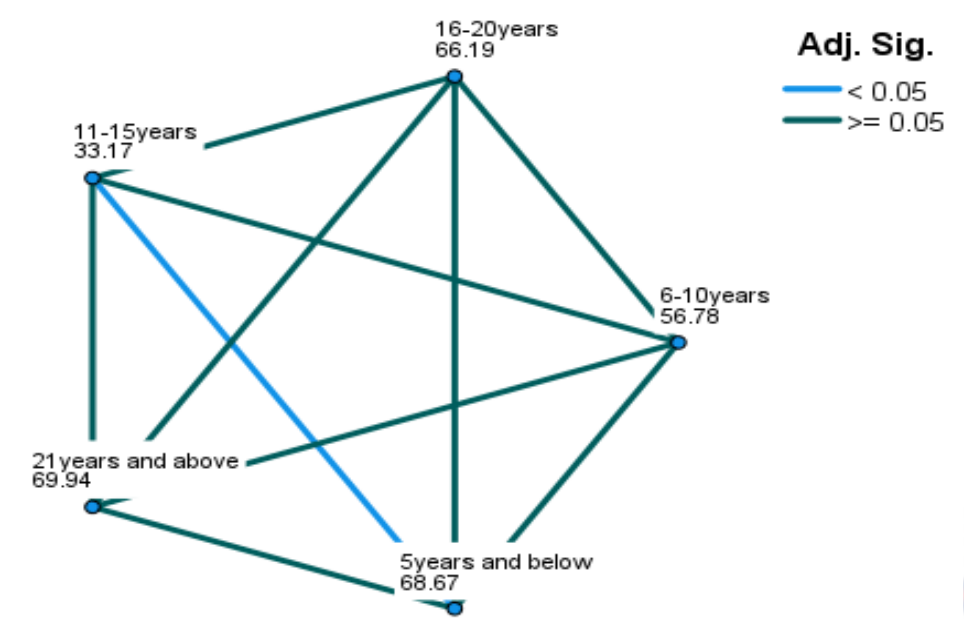

Figure 4: Pairwise Comparisons of Group
Source: Fieldwork (2022)

Hypothesis 3: Differences in Effectiveness of Economics Teachers based on Gender

The third null hypothesis formulated for the study stated that "there is no statistically significant difference in economics teachers' effectiveness based on their gender". The final research hypothesis sought to assess whether there is a significant difference between male and female economics teachers' effectiveness levels. Some previous studies opined that effectiveness is gender-biased. It is based on this assertion that the researcher sought to assess whether there is any significant difference based on the gender of Economics teachers.

The hypothesis was tested using the Mann-Whitney U test. The results from the analysis were presented in Tables 17.

Table 17: Mann-Whitney U for Teacher Effectiveness Based on Gender

Variable	Gender	N	Mdn	U	Z	Sig.
Teacher Effectiveness	Male	83	133			
	Female	39	138	1188.500	-2.370	.018
	Total	122				

a. Grouping Variable: Gender
Source: Fieldwork (2022)

Table 17 presents the results of the Mann-Whitney U test which was utilized to investigate the statistical difference in the level of Economics Teacher effectiveness based on their gender. The results from the Mann-Whitney U indicated that the male teachers (Median = 133, n = 83) and female teachers (Median =138, n= 39, U = 1188.500, Z = -2.370 p = .018) are significantly different in their level of effectiveness with a small effect size r = .215, which has been calculated below. The results suggest a statistically significant difference in the male and female levels of effectiveness in teaching in the classroom; hence, the null hypothesis was rejected since the Z-value was less than -1.96.

Discussion of Results

Economics Teachers' Level of Effectiveness from Students' and Teachers' Perspectives

Research question one sought to determine the effectiveness levels of Economics teachers in teaching economics from both students' and teachers' perspectives. The findings of the study revealed that Economics teachers are generally highly effective in teaching Economics from both students' and teachers' perspectives. This finding corroborates that of Lumadi and Acquah (2014) whose study revealed that Trainee-Economics teachers were rated as

effective in teaching economics by the majority of their students. Again, the finding is in line with Acquah (2012) who found economics teachers to be effective in teaching economics as perceived by their students. Kwarteng and Donkor (2019) also, asserted that students generally rated their Accounting teachers as effective in teaching accounting in senior high schools.

According to the criteria used to measure teacher effectiveness, it presupposes that teachers in the Central Region are skilled in three main areas of instruction; that is intellectual quality, quality learning environment, and significance. In terms of intellectual quality, teachers were able to effectively explain key Economics terminologies and engaged students in activities that required higher-order thinking in their lessons. To this end, as perceived by teachers and students, Economics teachers focused on promoting a deep understanding of main economics principles, concepts, skills, and ideas related to the discipline by allowing students to clearly articulate their understanding in their lessons. Effectively, teachers were able to groom their students to uncover the knowledge construction process involved in learning by themselves. Accordingly, students were engaged in higher-order thinking and the use of various forms of communication concerning what they are studying in class. Economics teachers were perceived to be highly effective because they were able to improve students' learning with high intellectual tasks (assignments).

Teachers' ability to create a quality learning environment suggests that they molded a learning environment that supported productive teaching and learning. This implies that teachers created a learning atmosphere that openly communicated high expectations from students by clearly outlining the quality criteria for assessment in their lessons. Implicit in the findings, Economics

teachers were seen to be providing social support by building and maintaining a classroom environment that promoted mutual respect, clarify peer support structures and foster a positive learning environment in their lessons. Besides, Economics teachers actively engaged their students and granted free-will directions on classroom tasks and criteria for assessments. Teachers, invariably worked to match their selection of teaching and learning environment with the needs of their students.

Being effective in terms of significance mean that Economics teachers were able to make students know the value of what the study in the classroom in the real world. This is possible because teachers openly built students' relevant previous knowledge (RPK) into the lessons they delivered in the classroom. The finding also suggested that teachers help students forge ahead both in their personal life and in studies by using their knowledge cultural diversity to discourage any stereotypic thoughts and attitude in their students. This generates acceptance of different cultural values and promotion of social support which eventually translate into improved learning as well as proper integration into the society. Just like students, economics teachers perceived themselves as effective in connecting important economics concepts, theories, and skills to real world situations by helping students examine why a concept is learnt and also encouraging them to practice what they study out of the school.

In furtherance to the above discussion, although the findings indicated that Economics teachers are highly effective from both teachers' and students' perspectives, their rating differed in magnitude. Teachers on one hand rated themselves higher than their students rated them. This implies that teachers' opinions of their own effectiveness are a bit higher than how students perceive

them. This finding confirms Little, Goe and Bell (2009) assertion that nobody knows the teacher better than the teacher himself or herself and teachers may therefore provide very useful insight that an outside observer might not see. The finding still supports Lumadi and Acquah (2014) who opined that students are more likely to rate their teachers auspiciously anytime they are given the chance to appraise them. This is because students rated their teachers favourably in the current study. However, the triangulation was important in the sense that it confirmed that teachers are indeed effective.

Further analysis revealed that although both teachers and students rated Economics teachers to be highly effective, differences exist in the aspects of NSWQT model they place much or less emphasis. The findings brought to light that Economics teachers are most effective in the Significance domain of the NSWQT model from both teachers' and students' perspectives. This means that teachers are very skillful at connecting what is learned in the classroom to the real world. This contradicts the finding of Kwarteng and Donkor (2019) that students were unsure about their teachers' ability to make accounting lessons significant. However, teachers appear to rate themselves least on quality learning environment whereas, students evaluated them as least effective on the intellectual quality dimension. The differences may have resulted from the fact that teachers have a better understanding of what they do in the classroom than students. Besides, it may not feel right for the teachers to shoot down the quality of their own intelligence or knowledge of the subject matter. Lumadi and Acquah (2014) opined that students are most influenced by teachers' intellectual quality. This means students are very sensitive to teachers' intellectual quality and this could explain why students rated teachers' effectiveness below how

teachers perceived their own effectiveness levels. It presupposes that students' expectation of teachers in terms of their intellectual display is very high.

The implication of this finding is that it is commendable to view teacher effectiveness from more than one perspective. This is because it makes the assessment of teacher effectiveness very authentic in the sense the second perspective may confirm or refute the first. Again, qualified teachers have a very high potential to be very effective in the classroom. It also implies that teacher education institutions in Ghana are giving the required training to their students. Hence Economics teachers are able to apply the needed pedagogy to make students learning successful, leading to a high rating by students.

Least and Dominant Big Five Personality Domains among Economics Teachers

Research question two sought to determine which of the Big Five personality trait is dominant and which is the least among economics teachers in the Central Region. The findings of the study revealed that the dominant Big-Five personality trait among Economics teachers was conscientiousness. It means that majority of the teachers had a personality trait that is able to persevere and are not easily distracted. Thus, majority of the teachers were responsible, organized, self-disciplined, calculated, and love to plan ahead. Interestingly, the finding also mean that majority of the teachers were spontaneous, impulsive, careless, and disorganized, and they tend to procrastinate, fail to complete tasks or not fulfill clear life goals. The foregoing attributes are typical of the conscientiousness personality dimension. An individual might find themselves at either end of the continuum depending on the circumstances they find themselves and the degree to which they have

mastered their personality. The finding supports the finding of Anti Partey (2014), who found that most Economics teachers in the Senior High School possess conscientious personality.

In contrast, the study revealed that the least Big-Five personality trait recorded among teachers was the neuroticism personality type. This implies that a few teachers identified with the neurotic personality type. Only a few teachers typically manifested persistent depressed mood and uneasiness, as well as changes in mood. In much the same way, few teachers seemed to be more inclined to reveal sentiments like tranquility, safety, calm, and stress resistance. Since the Big Five personality is a continuum, an individual may vary based on the impending conditions they may find themselves in as well as the degree to which they have mastered their personality.

The findings above support Jones (2017) who found that teachers are very high on conscientiousness and the other three traits (that is, openness, extraversion, and agreeableness) but were very low on neuroticism. In the same vein, it agrees with Göncz, Göncz, and Pekić (2014) who argued that a good teacher is expected to have less emotional lability (neuroticism), with prominence in extraversion, openness, agreeableness, and conscientiousness. However, the finding of the current study seems not to agree with Arif, Rashid, Tahira, and Akhter (2012) who opined that the openness personality trait was dominant among prospective teachers' Big-Five personality trait. Again, the findings appear to disagree with Ertl (2021) who also stated that teacher candidates are more extroverted. Besides, the finding appears not to support Ezzi (2019) who found that pre-service English teachers' Big-Five personality traits are almost the same, implying that none of the traits dominates the others.

The implication of the results is that teachers with favourable personality characteristics are likely to improve students' learning in Economics. Therefore, effective Economics teachers are expected to exhibit more conscientious and less neurotic personality characteristics in the classroom. For instance, both teachers and students rated Economics teachers' teaching very high because they had personality characteristics that were more conscientious and less neurotic.

Influence of Big five Personality Dimensions on Economics Teachers' Effectiveness

The first hypothesis, which was, "the Big five personality dimensions have no statistically significant influence on economics teachers' effectiveness", sought to determine whether each of the dimensions of the Big-Five personality trait dimensions had a significant influence on Economics teachers' effectiveness in the classroom.

The findings of the study revealed that there is a correlation between all the Big Five personality dimension and Economics teachers' effectiveness. The finding of the current study is in line with Kim, et al. (2018) who found that there is an association between the Big-Five personality dimensions and teacher effectiveness. However, only the Openness dimension had a significant positive influence on Economics teachers' effectiveness in the classroom. The finding primarily agrees with Brehini (2018) who found that only openness to new experiences substantially and positively predicts all three facets of organizational citizenship behavior. The finding also confirms that of Goncz, Gonca, and Pekic (2014) that students of social and humanities sciences preferred teachers who were more open, extravert, and caring than students of

scientific and technical sciences. This implies that the more open a teacher is the more effective he or she is likely to be. Hence, Economics teachers who concentrate on training and improving their knowledge and skills would improve their way of teaching. Moreover, teachers with a high level of openness to experience are creative and artistic, with a wide range of interests and stand the chance of improving students learning more than all other personality types. It also means that for teachers who are open to continually improve students' learning, they must continually stay open to new experiences.

Better still, the study found that conscientiousness and extraversion also had a positive correlation with teacher effectiveness. This implies that conscientiousness and extraversion are positively associated with teacher effectiveness. Barrick and Mount (1993) found that conscientiousness consistently correlated positively with work performance across a variety of occupations. That is, when teachers become more conscientious and extraverted, they are likely to improve their effectiveness. However, the current study did not find such an association as significant or strong enough. On the other hand, agreeableness and neuroticism had a negative correlation with Economics teachers' effectiveness. Thus, when teachers become more agreeable and neurotic, they are likely to become less effective. Therefore, for effectiveness to improve in Ghanaian Senior High Schools teachers ought to be more open, conscientious, extraverted; less agreeable and neurotic.

These findings deviate from the findings of Kim et al. (2019) that teachers' Big-Five domains were positively associated with teacher effectiveness except agreeableness. Again, the findings of the current study do not correspond with the studies of Othman (2009) who found that extraversion,

agreeableness and conscientiousness have a significant relationship with teaching effectiveness, whereas, openness and neuroticism had no significant relationship.

The implication of the finding is that the personality characteristics of the classroom teacher have a positive relationship with his or her effectiveness. However, the personality (Big-Five) does not single-handedly determine the effectiveness in the classroom. As a result, other non-cognitive factors must be jointly considered when looking at factors affecting teacher effectiveness in the classroom. Therefore, it is important for teachers to possess a favourable personality in the classroom.

Differences in Economics Teachers' Effectiveness Based on Teaching Experience

The second hypothesis sought to establish whether there exists a significant difference in Economics teachers' effectiveness based on their teaching experience. The results of the present study indicated that there is a significant difference in Economics teachers' effectiveness based on their teaching experience. This finding implies that teachers become more effective as they advance in experience. Again, the finding implies that although teachers may be equally qualified to teach Economics, the number of years for which they have taught can make a difference in their level of effectiveness in the classroom. This result can be linked to the principle of repetition in learning. That is, when an action is repeated frequently over time, mastery is achieved. However, a significant difference was found between Economics teachers who have taught for less than 5 years and those who have 11-15years of experience.

This finding is invariably in line with Adeyemi (2007) who found that schools with teachers having over five years' experience improve students' learning better than those schools with more teachers having less than five years' experience. In effect, teachers having more teaching experience are more effective. Ladd and Sorensen (2017) also confirmed that years of teaching bring about differences in teacher effectiveness. Thus, more experienced teacher is able to improve behaviour as well as test scores more than less experienced teachers. Also, the finding of the current study agrees with Dial (2008) who also stated that experienced teachers are able to improve students' scores, behaviour, and reduce absenteeism. On the other hand, the current result is not in synch with Kini and Podolsky (2016) who opined that not every experienced teacher is more effective and not every inexperienced teacher is less effective because variations exist at every given level of the teaching career. In congruence with this assertion, Graham, et al. (2020) found no evidence backing the claim that inexperienced teachers are less competent than experienced teachers.

The implication of this finding is that teachers need support to achieve their best in the classroom. However, beginning teachers might need more attention than their much more experienced counterparts. Hence, new teachers need more encouragement from their experienced colleagues, school administrators as well as GES and all other stakeholders to be more effective.

Differences in Effectiveness of Economics Teachers based on Gender

The final research hypothesis sought to assess whether there is a significant difference between male and female economics teachers' effectiveness levels. The finding revealed that there is a statistically significant difference in the male and female levels of effectiveness in teaching in the

classroom. However, further analysis revealed that the effect size is very small, which indicates that male and female Economics teachers basically effective, except that one is a bit more effective than the other.

The finding of the current study confirms that of Fynn (2020) who found that there was a significant difference in male and female teachers' job performance. The result also agrees with Sandhu and Agrawal (2020) who found a significant difference amongst teacher effectiveness, emotional intelligence and personality of male and female teachers. Beg et al. (2021), on the other hand found that there was no statistically significant difference among male and female teachers and that male and female teachers rate themselves equivalently.

The implication of this finding is that the effectiveness levels of male and female Economics teachers are not same. As a result, there economics teachers must constantly share ideas on both theoretical and practical economic issues. Also, male and female Economics teachers must discuss current economic issues in order to improve their understanding on issues.

Chapter Summary

The study sought to investigate teacher personality and economics teachers' effectiveness in Ghanaian Senior High Schools. The chapter mainly presented the results and discussions of the study. The study found that economics teachers exhibit a high level of effectiveness in teaching economics from both students' and teachers' perspectives, based on the first research question. The findings also suggested that the dominant Big-Five personality trait among Economics teachers was conscientiousness whereas the least Big-Five personality trait recorded among teachers was the neuroticism.

Furthermore, it was discovered there is a correlation between all the Big Five personality dimension and Economics teachers' effectiveness however, only the Openness dimension had a significant positive influence on Economics teachers' effectiveness in the classroom. Besides, it was also discovered there is a significant difference in Economics teachers' effectiveness based on their teaching experience. Finally, the study indicated that there was a statistically significant difference in Economics teachers' effectiveness based on their gender. The next chapter deals with the summary, conclusions, recommendations, as well as suggestions for further studies.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENTDATIONS

Overview

This chapter, which serves as the study's last chapter, summarizes the research's major findings. The summary provides a general overview of the study's objectives as well as the procedures used to gather and analyze data in order to answer the research questions and hypotheses put out for the study. The chapter also includes conclusions and recommendations that were made in light of the study's findings. In this chapter, suggestions for further research have also been covered.

Summary of the Study

The study aimed to examine teacher personality and economics teachers' effectiveness in Ghanaian Senior High Schools. Two (2) research questions and three (3) hypotheses, in particular, were the focus of the study, which were:

1. What is Economics teachers' level of effectiveness from both students' and teachers' perspectives in the Central Region?
2. What is the least and dominant big five Personality trait among Economics teachers in the Central Region?
3. H_0: The Big five personality dimensions (openness, conscientiousness, extraversion, agreeableness, and neuroticism) have no statistically significant influence on economics teachers' effectiveness.
4. H_0: There is no statistically significant difference in Economics teachers' effectiveness based on their teaching experience.

5. H_0: There is no statistically significant difference in economics teachers' effectiveness based on their gender.

A cross-sectional survey research design was used for the research. The sole tool utilized to gather data was a questionnaire. The technique of multi-stage sampling was employed to choose the sample size. At stage one, twenty (20) of the sixty-seven (67) public SHS in the Central Region were chosen using the purposive sampling method. The second stage involved calculating and allocating the total number of pupils from the schools using the quota sampling technique. At stage three, the students for the research were chosen using a simple random sample procedure, more particularly, the lottery method. To include all teachers in the research, the census approach was employed. In all, 122 teachers and 600 students participated in the research. Both descriptive (frequency, means, and standard deviations) and inferential statistics were used for the data analysis (Multiple linear regression, Kruskal Wallis H Test, and Mann-Whitney U Test). Descriptive statistics were used to analyze the demographics and to answer research questions 1 and 2, while inferential statistics were used to analyze hypotheses 1 through 3.

Key Findings

On the basis of a detailed discussion, the following highlights the study's main findings:

1. Economics teachers exhibit a high level of effectiveness both from students' and teachers' perspectives and teachers tend to evaluate themselves higher than students. Besides, both teachers and students ranked the significant dimension as the highest and intellectual quality, the least in terms of Economics teachers' effectiveness.

2. The least Big-Five personality trait recorded among teachers was the neuroticism trait while the dominant Big-Five personality trait among Economics teachers was conscientiousness.
3. There was a correlation between all the Big Five personality dimension and Economics teachers' effectiveness, however, only the Openness dimension had a significant positive influence on Economics teachers' effectiveness in the classroom.
4. The effectiveness of Economics teachers varied significantly according to their teaching experience. Economics teachers with fewer than five (5) years of experience and those with between 11 and 15 years of experience were shown to differ significantly from one another.
5. The effectiveness of Economics teachers varied statistically significantly depending on their gender, however, the effect size was rather small.

Conclusions

1. Based on the findings of research question one, Economics teachers within the Central Region are effective in teaching Economics. The study, therefore, makes a conclusion that it is commendable to measure teacher effectiveness by employing different methods in the same study, since, different methods yield different results. Again, Economics students are always likely to rate their teachers as effective anytime the opportunity is presented to them.
2. Economics teachers in the Central Region possess more conscientious personality traits than all other Big-Five personalities. However, teachers possess less of the neurotic personality characteristics of the

Big-Five personality trait. It is therefore concluded that Economics teachers in the Central Region differ in the Big Five personality.

3. Additionally, all Big Five personality traits and the effectiveness of Economics teachers were found to be correlated, however, only the Openness dimension had a significant positive influence on Economics teachers' effectiveness in the classroom. The study, therefore, concludes that when teachers become more open with their students, they are more likely to improve their effectiveness than any other Big Five personality type. Teacher personality must not be considered the sole predictor of teacher effectiveness.
4. The study also showed that an Economics teacher's experience can explain variances in their effectiveness or performance in the classroom. The study concludes that even though all teachers in the Central Region are rated as effective more experienced teachers are more able to promote students' learning than less experienced teachers.
5. Finally, differences in Economics teachers' effectiveness levels can be ascribed to their gender. The study comes to the conclusion that teachers of economics in the Central Region, whether male or female, do not stimulate students to learn at the same pace.

Recommendations

The following suggestions are given based on the study's findings.

1. Ghana Education Service should provide professional development opportunities focused on self-assessment techniques and incorporating student feedback into the evaluation process. Help teachers develop the skills to critically analyze their own teaching practices, compare their

self-evaluations with student feedback, and make informed adjustments to their instructional approaches.

2. By capitalizing on the dominant conscientiousness trait and providing support for managing potential challenges associated with neuroticism, headteachers can create an environment that nurtures the strengths of Economics teachers while addressing their specific needs. This holistic approach can contribute to their professional growth and overall well-being, ultimately benefiting their effectiveness in the classroom.
3. Ghana Education Service should provide professional development opportunities that focus on enhancing teachers' Openness to Experience. This can include workshops, training sessions, or courses that encourage teachers to explore new ideas, pedagogical approaches, and innovative teaching methods in the field of economics.
4. Teacher Education Institutions should make supervised internships a compulsory part of their curriculum aside the regular on-campus and off-campus teaching practice. This will help students to build confidence and experience early in their career. Better still, GES must develop special in-service training programmes specifically for beginning teachers where avenue will be created for teachers to learn from one another in order to expand their scope on best practices.
5. Ghana Education Service should ensure equal access to professional development opportunities for all Economics teachers, regardless of gender. Offer training programs, workshops, and conferences that address a wide range of topics related to teaching pedagogy, content knowledge, and classroom management. By providing equitable

professional development opportunities, you can help bridge any gender-related gaps in knowledge and skills among Economics teachers.

Suggestions for Further Studies

The study assessed personality and Economics teachers' effectiveness in Ghanaian SHS. Data collection and analysis for the study used the quantitative approach. Therefore, it is proposed that future studies concentrate on:

1. expanding the study area to cover the entire country (Ghana);
2. the use of the mixed method for enquiry based on the same topic;
3. the use of other personality classification, such as, the Myers Briggs Type Indicator (MBTI);
4. assessment of pre-service Economics teachers' personality and their effectiveness from their own perspectives.
5. assessing the influence of more than one non-cognitive factors on effectiveness.

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APPENDICES

APPENDIX A

QUESTIONNAIRE ON TEACHER PERSONALITY AND EFFECTIVENESS

QUESTIONNAIRE FOR ECONOMICS STUDENTS

Dear Respondent,

This questionnaire is developed to investigate **personality and economics teacher effectiveness in Ghanaian senior high schools**. The study is solely for academic purposes. Please, kindly provide sincere and objective responses to the questions. I assure you that any information provided will be treated as strictly confidential.

Section A: Demographic Data of Respondents

Instruction: Tick [√**]** the column that is applicable to you or consistent with your opinion.

1. Gender of student: Male [ ] Female [ ]
2. Gender of teacher: Male [ ] Female [ ]
3. Course of study: G. Arts [ ] G. Sciences [ ] H. Economics [ ] Business [ ]

   V. Arts [ ] Technical [ ]
4. Form: One [ ] Two [ ]

Instructions: *Please tick [√] the appropriate box to indicate your level of agreement or disagreement with each statement on the Likert Scale items of section C.*

Key: *To a Very Large Extent* ***(VLE)****; To a Large Extent* ***(LE)****; To a Moderate Extent* ***(ME)****; To a Small Extent* ***(SE)****; To a Very Small Extent* ***(VSE).***

SECTION B

ASSESSMENT OF ECONOMICS TEACHERS' EFFECTIVENESS

SN	Statement	VSE	SE	ME	LE	VLE
	INTELLECTUAL QUALITY					
5	My teacher clearly explains core Economics concepts to my understanding.					
6	My teacher helps me to express my understanding of core concepts in Economics when teaching.					
7	My teacher involves me in explaining core Economics concepts.					
8	My teacher helps me to discover new knowledge in Economics on my own.					
9	My teacher encourages me to analyze the information he/she gives in class.					
10	My teacher permits me to express my opinion.					
11	My teacher helps me to differentiate the meaning of concepts in Economics from everyday use.					
12	My teacher helps me to use different forms such as graphs and other					

	mathematical functions to explain concepts.					
13	My teacher encourages me to use various forms of communication (oral, written, iconic (diagrams and symbols) to elaborate and discuss concepts learned in Economics.					
	QUALITY LEARNING ENVIRONMENT					
14	My teacher makes it clear to me the standards that would be used for assessment (whether class test, assignment or class discussion).					
15	My teacher ensures that I remain on task.					
16	My teacher makes sure that I pay attention when he/she is teaching.					
17	My teacher makes sure that I show interest when he/she is teaching.					
18	My teacher constantly gives me the assurance that I am good and that I will perform to expectation in Economics.					
19	My teacher creates a positive learning environment within the classroom.					

20	My teacher clarifies peer support structures within the classroom.					
21	My teacher promotes mutual respect within the classroom.					
22	My teacher encourages me to accept responsibility for my learning and for the consequences of my behaviours in learning Economics in class.					
23	My teacher sometimes gives me the option to choose learning activities and assessment criteria.					
24	My teacher connects new material to past learning and assist me to see the continuity in my learning over time.					
	SIGNIFICANCE					
25	My teacher uses what I have learned and general things I already know to help me understand new concepts in Economics.					
26	My teacher uses his/her knowledge of other cultures to help remove certain wrong notions about other cultures from my mind.					

27	My teacher helps me to integrate core concepts from various subject areas in order to help me understand concepts I learn in Economics.					
28	My teacher encourages me to respect the views of other students from different cultural backgrounds.					
29	My teacher publicly values different cultural and social points of view from students.					
30	My teacher relates Economics concepts to practical things outside the classroom.					
31	My teacher helps me to see the usefulness of the information he/she gives in class.					
32	My teacher encourages me to come out with my own explanation and definition of concepts.					
33	My teacher is considered to be generally effective in the teaching of Economics.					

APPENDIX B

QUESTIONNAIRE ON TEACHER PERSONALITY AND EFFECTIVENESS

QUESTIONNAIRE FOR ECONOMICS TEACHERS

Dear Respondent,

The purpose of this study is to investigate **personality and economics teacher effectiveness in Ghanaian senior high schools** You are kindly requested to provide frank opinions to the items in this instrument. Your responses to these items will be treated with utmost confidentiality. Thank you in advance for your co-operation.

SECTION A: Demographic Data of Respondents

Instruction: Tick [√**]** the column that is applicable to you or consistent with your opinion.

1. Gender: Male [ ] Female [ ]
2. Academic Qualification: Bachelors [ ] Masters [ ] PhD [ ]
3. Professional Qualification: Diploma [ ] PGDE [ ] B.Ed. [ ] M. Ed. [ ]
4. Years of Teaching: …….

Instructions: *Please tick [√] the appropriate box to indicate your level of agreement or disagreement with each statement on the Likert Scale items of section B.*

Key: Strongly Agree (SA); Agree (A); Uncertain (U); Disagree (D); Strongly Disagree (SD)

SECTION B

EXTENT TO WHICH PERSONALITY TRAITS (OPENNESS, CONSCIENTIOUSNESS, EXTRAVERSION, AGREEABLENESS AND NEUROTICISM) PREDICT ECONOMICS TEACHER'S EFFECTIVENESS

No.	Statements Preamble: I see myself as someone who…	SD	D	U	A	SA
5	is a talkative					
6	tends to find fault with others					
7	does a detailed job					
8	is depressed					
9	is original (comes up with new ideas)					
10	is reserved					
11	is helpful and unselfish with others					
12	can be fairly careless					
13	is relaxed, handles stress well					
14	is curious about many different things					
15	is full of energy					
16	starts quarrels with others					
17	is a reliable worker					
18	can be tensed					
19	is clever and a deep thinker					
20	generates a lot of eagerness					
21	has a forgiving nature					
22	tends to be disorganized					

23	worries a lot					
24	has an active imagination					
25	tends to be quiet					
26	is generally trusting					
27	tends to be lazy					
28	is emotionally stable (not easily upset)					
29	is inventive					
30	has a self-assured personality					
31	can be cold and indifferent					
32	perseveres until the task is finished					
33	can be moody					
34	values creative and appealing experiences					
35	is sometimes shy					
36	is understanding and kind to almost everyone					
37	does things efficiently					
38	remains calm in tense situations					
39	prefers work that is routine					
40	is outgoing (sociable)					
41	is sometimes rude to others					
42	makes plans and follows through with them					
43	gets nervous easily					
44	likes to reflect (play with ideas)					
45	has few artistic interests					
46	likes to cooperate with others					

47	is easily distracted					
48	is experienced in art, music, or literature					

Instructions: *Please tick [√] the appropriate box to indicate your level of agreement or disagreement with each statement on the Likert Scale items of section C.*

Key: *To a Very Large Extent* ***(VLE)****; To a Large Extent* ***(LE)****; To a Moderate Extent* ***(ME)****; To a Small Extent* ***(SE)****; To a Very Small Extent* ***(VSE).***

SECTION C

ASSESSMENT OF ECONOMICS TEACHERS' EFFECTIVENESS

SN	Statement	VSE	SE	ME	LE	VLE
	INTELLECTUAL QUALITY					
49	I clearly explain core Economics concepts to the understanding of my students.					
50	I allow my students express their understanding of core concepts in Economics when teaching.					
51	I involve my students in explaining core Economics concepts.					
52	I give my students the room to discover new knowledge in Economics on their own.					
53	I encourage my students to analyze the information I give in class.					
54	I permit my students to express their opinions.					

55	I teach my students to differentiate the meaning of concepts in Economics from everyday use.					
56	I teach my students to use different forms such as graphs and other mathematical functions to explain concepts.					
57	I encourage my students to use various forms of communication (oral, written, iconic (diagrams and symbols) to elaborate and discuss concepts learned in Economics.					
QUALITY LEARNING ENVIRONMENT						
58	I make it clear to my students the standards that would be used for assessment (whether class test, assignment or class discussion).					
59	I ensure that my students remain on task.					
60	I make sure my students pay attention when teaching.					
61	I make sure my teaching is interesting for my students.					
62	I constantly give my students the assurance that they are good and that they will perform to expectation in Economics.					
63	I create a positive learning environment within the classroom.					
64	I clarify peer support structures within the classroom.					
65	I promote mutual respect within the classroom.					

66	I encourage my students to accept responsibility for their learning and for the consequences of their behaviours in learning Economics in class.					
67	I sometimes give my students the option to choose learning activities and assessment criteria.					
68	I connect new material to past learning and assist my students to see the continuity in my learning over time.					
	SIGNIFICANCE					
69	I use what I have taught and general things students already know to help them understand new concepts in Economics.					
70	I use my knowledge of other cultures to help remove certain wrong notions about other cultures from students' mind.					
71	I help my students to integrate core concepts from various subject areas in order to help them understand concepts they learn in Economics.					
72	I encourage my students to respect the views of other students from different cultural backgrounds.					
73	I publicly value different cultural and social points of views from my students.					
74	I relate Economics concepts to practical things outside the classroom.					
75	I help my students see the usefulness of the information I give in class.					

76	I encourage my students to come out with their own explanation and definition of concepts.					
77	I consider myself to be generally effective in the teaching of Economics.					

APPENDIX C

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
INSTITUTIONAL REVIEW BOARD SECRETARIAT
TEL: 0558093143 / 0508878309
E-MAIL: irb@ucc.edu.gh
OUR REF: UCC/IRB/A/2016/1333
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0009096

19TH APRIL, 2022

Mr. Emmanuel Quayson
Department of Business and Social Sciences Education
University of Cape Coast

Dear Mr. Quayson,

ETHICAL CLEARANCE – ID (UCCIRB/CES/2021/154)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research **Personality and Economics Teachers Effectiveness in Ghanaian Senior High Schools.** This approval is valid from 19th April, 2022 to 18th March, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Samuel Asiedu Owusu, PhD
UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST