# Effect of Emotional Intelligence on Economic Teachers' Self-Efficacy: The Moderating Role of Background Characteristics

**\*Bernard Yaw Sekyi Acquah**
Department of Business and Social Sciences Education, University of Cape Coast, Ghana
**E-mail:** bacquah@ucc.edu.gh
**ORCiD:** https://orcid.org/0000-0001-6273-063X

**Doris Dziedzorm Agbo**
School of Graduate Studies, University of Cape Coast, Ghana
**E-mail**: doris.dzeidzorm.dd@gmail.com
**ORCiD:** https://orcid.org/0009-0007-3517-7518

**\*Corresponding Author:** bacquah@ucc.edu.gh

**Abstract**: The study examined the moderating role of teacher background characteristics on the influence of emotional intelligence on the self-efficacy of Economics teachers in senior high schools. The model testing correlational research design was employed for the study. Eighty-eight (88) senior high school economics teachers participated in the study, from an initial accessible population of 300. The General Self-Efficacy scale developed by Schwarzer and Jerusalem (1995) and the Quick Emotional Intelligence Self-Assessment scale developed by Mohapel (2015) were adapted to measure economics teachers' self-efficacy and emotional intelligence, respectively. The reliability and validity of the instruments were established using Cronbach's alpha, composite reliability and convergent validity. Smart-PLS (Partial Least Square modelling) was used to estimate the model to establish the relationship among teachers' background characteristics, emotional intelligence and self-efficacy. The study revealed that senior high school economics teachers' marital status, gender and teaching experience affected their emotional intelligence and self-efficacy in teaching economics. Economics teachers' emotional intelligence affected their self-efficacy. However, teachers' marital status, gender and teaching experience did not moderate the effect of emotional intelligence on the self-efficacy of economics teachers. It is recommended that training interventions by the Ghana Education Service, Continuous Professional Development service providers and other educational stakeholders be channeled towards improving self-concepts, especially emotional intelligence and teachers' self-efficacy. Training for teachers on emotional intelligence and self-efficacy should be targeted based on their gender, marital status and teaching experience, as they differed significantly on these self-concepts in terms of these background characteristics.

**Keywords:** Emotional Intelligence; Self-Efficacy; Teaching Experience; Teacher Background; Characteristics; Economics Teachers.

## Introduction

Education should allow students to reach their full potential (Gaol & Sitepu, 2020). Prastiwi and Hendri (2020) point out that humans must be educated to survive. The dire need for education is even more pressing in the fast-changing world with numerous socioeconomic challenges. Many countries have started the education for sustainable development

programs to meet the United Nations Organization's sustainable development goals, realising the urgent need for high-quality education. Key among the United Nations's sustainable development goals are the need to end poverty in all its forms (SDG 1), achieve decent work and economic growth (SDG 8) and attain responsible consumption and production patterns (SDG 12). These essential goals can be effectively achieved through quality education, which happens to be the 4th SDG.

One key aspect of a nation's education, which provides a strong impetus for achieving sustainable development, is economics education. Economics education seeks to equip individuals with knowledge and competencies to manage and allocate scarce resources efficiently. The efficient allocation of resources in a country positions individuals and households to build wealth and reduce the negative impact of poverty. According to Acquah and Partey (2023), households that can accumulate wealth are also better equipped to create neighborhoods and communities that are more stable economically. Therefore, the teaching and learning economics is critical to achieving the SDGs.

In Ghana, the economics subject is taught as elective at the senior high school level and as a prerequisite for further tertiary studies. This implies that if the study of economics at the senior high school level is not prioritized, students may not acquire the required prerequisite knowledge in the subject for further studies.

SDG 4 aims to ensure inclusive and equitable education and promote lifelong learning opportunities for all. This all-important strategic goal for quality education requires competent teachers who will impact students' performance (Shahzad & Naureen, 2017). This suggests that the education system will be more effective if teachers possess the requisite competencies to perform their jobs.

The role of teachers in building a nation cannot be overemphasized (Timm & Barth, 2021). The development of a conscious citizenry to drive development depends upon the standard of a nation's education system (Thomas & Banki, 2021). Research, over the years, has indicated that teachers have great potentials to affect students' educational outcomes (Madigan & Kim, 2021; Madigan & Curran, 2021). There is considerable evidence that schools can realise a difference in the academic achievements of their learners and the critical factor responsible for the differences can be ascribed to teacher. It has been established that differences in teacher effectiveness are a strong determinant of differences in student achievement (Heirweg et al., 2021).

Teachers are, therefore, essential factors in determining the educational system's success or failure. Teacher's competency is based on self-efficacy and its absence may cause psychological issues, such as low confidence level and/or low self-esteem (Shahzad & Naureen, 2017), which may affect students' attitudes towards learning. Teacher's effectiveness is believed to be directed by self-efficacy levels and belief in teaching capabilities (Lauermann & Ten Hagen, 2021). For teachers to live up to that expectations, it may take some time on the job since most of these desired attributes take time to develop. Some of these qualities may include emotional intelligence and self-efficacy. A question of concern in this study is, do teachers' background characteristics affect their emotional intelligence and self-efficacy in teaching senior high school economics?

Emotion is pervasive (Trigwell (2012) and is a critical component for effective learning. Emotional intelligence (EI) uses capabilities other than cognitive capabilities to control and take advantage of the emotional conditions in a settings due to the individual's understanding of their emotions and that of others at that moment. Emotional intelligence can refer to non-cognitive abilities, competencies, skills, and capabilities that can affect the understanding, perception, use and regulation of one's emotions (Reis & Sprecher, 2009). It can also be defined as one's ability to process emotional information accurately and efficiently (Mohamad & Jais, 2016). The processing of emotional information may include perceiving, assimilating, understanding and managing emotions. It is clear that emotional intelligence concerns itself with the abilities and traits that contribute to the success of an individual's engagement and teaching cannot be left out.

In their study, Suhairy et al. (2022) established that emotional intelligence had a significant positive relationship with work performance. When individuals interact in an organization, they create a social phenomenon known as organizational culture. The implication is that an emotionally intelligent for economics teacher could create a

supportive learning environment and effectively manage students' emotions, behavior and motivation to promote learning in the classroom. A systematize review by Rao (2022) concluded that emotional intelligence significantly impacts classroom management strategies and student behavior. It has been established that teachers with higher emotional intelligence are more sensitive and self-motivated in their lessons (Tyng et al., 2017). Similarly, emotionally intelligent teachers can control and manage emotions and efficiently handle essential information that impacts students' success (Ye & Chen, 2015).

Research on emotional intelligence has been inconclusive on the impact of background characteristics on emotional intelligence. For instance, whereas some studies found the marital status to influence the emotional intelligence (Khodarahimi, 2015; Tasliyan et al., 2014), others found no significant influence (Rahim & Malik, 2010; Landa et al., 2008). Considering this inconclusive evidence, the researchers in this study sought toi establish the impact of teacher backgrounds variables on emotional intelligence.

Research on the concept of self-efficacy could be traced to the work of Bandura's social cognitive theory (Penrose et al., 2007). Perceived self-efficacy is defined by Bandura (1993) as people's beliefs and abilities to create ascribed performance levels that exert influence over events that affect their lives. These convictions influence how they feel, reason, encourage themselves and act. In the view of Gibson and Dembo (1984),self-efficacy is the degree to which teachers believe they have the power to effect change and make a difference in a student's life through their behavior and learning results. Therefore, an assertion can be made that teachers believed to have a high sense of self-efficacy in their teaching can motivate their students and also help to enhance their cognitive development (Bandura, 1993). Creating conducive environments rests almost entirely on the teacher's self-efficacy and talents (Bandura, 1995). Self-efficacy may, therefore, be linked with teacher effectiveness.

According to Bandura (1997), people form self-efficacy beliefs from four sources: through mastery experiences, vicarious experiences, verbal persuasion and physiological/ affective states. Self-efficacy has been proven to differ between novice and experienced teachers (Bjorklund et al.,2021; Yada et al., 2021). A novice educator is more likely

to rely on unaltered subject-matter information, typically taken directly from the curriculum and may lack a logical framework or perspective from which to present the topic. Moreover, inexperienced educators frequently choose broad pedagogical strategies without considering the prior knowledge levels or learning preferences of their students (Jega & Julius, 2018) because a beginning teacher may have to battle with issues of general pedagogy or generic teaching principles as well as pedagogical content knowledge simultaneously before they can become successful. This implies that economics teachers' experience on the job could influence their teaching self-efficacy.

The study of Bonett (1994) on marital status and self-efficacy found that women's expectations of their abilities in relation to traditionally male occupations were lower than men's, irrespective of their marital status. On the traditionally female subscale of the Career Attitude Scale, men provided lower efficacy expectations for traditionally female occupations, indicating a more nuanced relationship. However, Odanga et al. (2015) obtained contradictory findings from one study. Whereas the quantitative results of their study found no significant influence of marital status on teachers' self-efficacy, their qualitative findings revealed that marital status influenced teachers' self-efficacy.

Interactions between teachers and their students and relationships among students may determine the emotional atmosphere in a classroom. Kazmi et al. (2021) looked at Pakistani college instructors' self-efficacy stemming from emotional intelligence. The study found that emotional intelligence directly and significantly impacts self-efficacy. Participants' age and years of experience in specific fields significantly impacted their emotional intelligence; however, age alone did not affect their self-efficacy. A study by Akdoğan (2021) found no predictive impact of emotional intelligence on self-efficacy among primary school teachers. This suggests that the evidence on the connection between emotional intelligence and self-efficacy is inconclusive.

In Ghana, studies on Emotional Intelligence among teachers seem to be scarce. Lawson et al. (2021) focused on medical students' emotional intelligence at the University of Ghana and came out with the findings that there was low emotional intelligence among students of the University of Ghana Medical School with no significant difference based on

gender, age and clinical year. Boakye (2021) studied the association between emotional intelligence and the socioeconomic status of Ashesi University College Students and came out with the finding that there was no significant association between the socioeconomic status of students and their level of emotional intelligence. Bassah (2020), on the other hand, looked at teachers' self-efficacy beliefs and Ghanaian language curriculum implementation in senior high schools in the North-South Dayi District of the Volta Region. The author revealed that Ewe teachers exhibited a high sense of efficacy in implementing the Ghanaian language and Culture curriculum. It was further established that the self-efficacy beliefs of the Ewe teachers predicted their fidelity in implementing the Ghanaian language and Culture curriculum. However, there was no significant differences between the self-efficacy beliefs of teachers based on gender. Acquah and Partey (2023) studied self-efficacy beliefs and performance of pre-service economics teachers and came out with the findings that pre-service economics teachers were highly self-efficacious in teaching economics; male pre-service economics teachers had a higher self-efficacy belief than their female counterparts; and there was a weak, insignificant positive relationship between self-efficacy belief and pre-service economics teachers' performance in off-campus teaching practice.

There is limited research regarding the effect of emotional intelligence on the self-efficacy of Economics teachers at the Senior High school level as existing studies did not examine the role of marital status and experience on teachers' emotional intelligence. Therefore, this study examined the moderating role of teacher background characteristics on the influence of emotional intelligence on the self-efficacy of Economics teachers in senior high schools.

## Methodology

### Design
This study employed the model testing correlational research design. A model testing correlational design, according to Sousa et al. (2007), examines proposed relationships for a model or theory where study variables are classified as independent (predictor) and dependent (outcome) and there is no manipulation of variables. The design was deemed appropriate for this study because the researchers aimed to establish the predictive relationship between emotional intelligence and senior high school economics teachers' self-efficacy,

as well as the moderating role of teacher background characteristics without manipulating variables.

### Population and Sampling
The target population for the study was all senior high school economics teachers in Ghana. An exact total number of economics teachers in the country could not be obtained because the district and regional education offices could not provide the exact number of economics teachers in the schools as some teachers get reassigned to teach other subjects after being posted to the schools. An estimated total number of 4,407 economics teachers was arrived at by multiplying the total number of schools (1469) which offer economics, based on the 2022 national school placement system data by the estimated average of 3 economics teachers in each school. The accessible population of economics teachers was estimated to be far less than this estimated national total. Some economics teachers were inaccessible for the study because their schools were on vacation during the time of data collection. Senior high schools in Ghana run a double-track system, whereby the population of students is divided into two tracks. One track reports to school when the other track goes on vacation. This arrangement was made by the Ghana Education Service to manage the increased enrolment due to the implementation of the free senior high school education policy. To obtain a representative sample of economics teachers for the study, senior high schools in Ghana were grouped into three zones: the northern, middle and southern zones. The northern zone comprised the Northern, Savannah, Upper East, Upper West and North East Regions. Oti, Bono East, Bono Ahafo, Ahafo, and Ashanti Regions formed the middle zone and the southern zone comprised the Western, Western North, Central Region, Volta, Eastern and Greater Accra Regions. Cluster sampling technique was used to randomly select the northern zone for the study. The accessible number of economics teachers in the Northern zone was 300 economics teachers who were in school at the time of data collection. All 300 economics teachers in the accessible population were included in the study, via the census method. However, only 88 questionnaires were filled to the requirements of the study. All responses with missing values were discarded to ensure that the obtained responses provided the requisite data for the study. The study

therefore ended up with a sample of 88 economics teachers.

## Instrumentation
The General Self-Efficacy scale developed by Schwarzer and Jerusalem (1995) (as cited in Schwarzer, 2012) was adapted to be used in this study. It was a ten-item, four-Likert scale instrument with options ranging from "Not at all," "hardly true," "moderately true" and exactly true." The total self-efficacy score was achieved by summing up all the items, ranging from 10 to 40. The higher the score, the higher the self-efficacy. The Quick Emotional Intelligence Self-Assessment scale was adapted to measure the Emotional Intelligence of the economics teachers. Eighty-eight questionnaires, representing 64% of responses, were retrieved from the field, which is adequate for social science studies, as Mugenda and Mugenda (2003) indicated.

## Validity and Reliability
The reliability of the data was estimated using the Cronbach's Alpha, composite reliability and convergent validity, all of which were within the benchmark of 0.708 or higher (Hair et al., 2019). Discriminant validity was estimated using the heterotrait-monotrait ratio, which, according to Henseler et al. (2016), should be lower than 0.85. All the estimated ratios shown in Table 2 were below the 0.85 threshold, implying that the data set passed the discriminant validity test.

## Statistical Treatment of Data
The relationship between teachers' self-efficacy, emotional intelligence and background factors was modelled using the Smart-PLS (Partial Least Square modelling). Direct and indirect paths were built during the model's development to determine the effect of each variable on the others and test the hypotheses. Pearson's correlation and t-statistics were computed to evaluate the model and test the study's hypotheses.

## Ethical Considerations
The consent of participants was sought before data collection took place. No teacher was forced to participate against their will and no school was forced to be part of the study. Participants were not required to write their names to ensure anonymity and confidentiality.

# Results and Discussions
## Measurement Model
The measurement model was assessed using indicator loadings or item reliability, internal consistency, convergent validity and discriminant validity. According to Hair et al. (2019), these criteria are suitable for determining the data quality for analyzing research hypotheses.

## Indicator Loadings
According to Hair et al. (2019), indicator loadings below the 0.70 benchmark can be kept once they do not affect the model's overall reliability. Moreover, as indicated in Appendix A, the item loadings were statistically significant at the 0.05 alpha level. From Appendix A, loadings for emotional intelligence were between 0.425 and 0.873, loading for self-efficacy ranged from 0.511 to 0.775 while others with single constructs i.e. gender, marital status and experience were all 1.00. Based on the rule of thumb prescribed by Hair et al. (2019) that loadings below the 0.70 benchmark can be kept once they do not affect the model's overall reliability, the indicators shown in Appendix A were retained to ensure the model's reliability.

## Internal Consistency and Convergent Validity
According to Hair et al. (2019), internal consistency or reliability values ranging between 0.60 and 0.70 are acceptable and a score between 0.70 and 0.90 is satisfactory.

### Table 1: Construct Reliability and Convergent Validity

| Constructs | CA | rho_A | CR | AVE |
|---|---|---|---|---|
| Emotional intelligence | 0.853 | 0.869 | 0.875 | 0.519 |
| Self-efficacy | 0.906 | 0.914 | 0.919 | 0.620 |
| Gender | 1.000 | 1.000 | 1.000 | 1.000 |
| Length of service | 1.000 | 1.000 | 1.000 | 1.000 |
| Marital status | 1.000 | 1.000 | 1.000 | 1.000 |

Notes: CA = Cronbach's Alpha; rho_A = Omega rho_a (composite reliability), CR = Composite Reliability;  AVE = Average Variance Extracted

The internal consistency of the constructs was assessed using the Cronbach's Alpha (CA), rho_A and Composite Reliability (CR) while convergent validity was assessed using the average variance extracted (AVE). An AVE of 0.50 or greater is desirable since it indicates the constructs' ability to explain at least 50% of its items' variance. The results presented in Table 1 evaluated how well the constructs measured what they were supposed to measure and have met consistent use in different settings.

Although CR is seen as the best measure of internal consistency, a cursory check of the values of all the other measures showed that the constructs' internal consistencies were achieved. This is because CA, rho_A, and CR values all met the accepted threshold of 0.708 or higher (Hair et al., 2019). Again, the

constructs' convergent validity, which measured the extent to which the constructs shared a mutual relationship, was satisfactory. This was because Average Variance Extractors (AVE) values were reasonably higher than the minimum 50 per cent threshold (AVE≥0.50).

**Discriminant Validity (DV)**
Another form of an assessment of the measurement model is discriminant validity, which shows how distinctive or discriminatory a construct is experimentally from other constructs in the structural model. The results in Table 2 confirm that the constructs were distinct and each measured different phenomena. This check was run using the HTMT ratio scores proposed by Henseler et al. (2016). The rule of thumb is that HTMT values should be lower than 0.85.

**Table 2: Heterotrait-Monotrait Ratio (HTMT)**

| Constructs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. EI | | | | | | | | |
| 2. GR | 0.302 | | | | | | | |
| 3. LS | 0.340 | 0.043 | | | | | | |
| 4. MS | 0.386 | 0.193 | 0.109 | | | | | |
| 5. SE | 0.588 | 0.491 | 0.157 | 0.099 | | | | |
| 6. GR x EI | 0.244 | 0.033 | 0.085 | 0.086 | 0.086 | | | |
| 7. LS x EI | 0.245 | 0.064 | 0.245 | 0.068 | 0.100 | 0.229 | | |
| 8. MS x EI | 0.288 | 0.069 | 0.073 | 0.021 | 0.123 | 0.397 | 0.037 | |

Notes: EI = Emotional intelligence; GR = gender; LS = Length of service; MS = Marital status; SE = Self-efficacy.

**Table 3: Structural model results**

| Paths | R | T stat | P values | $R^2$ | $Q^2$ | $f^2$ |
|---|---|---|---|---|---|---|
| EI | | | | 0.302 | 0.195 | |
| SE | | | | 0.476 | 0.105 | |
| Research Question 1 | | | | | | |
| MS -> EI | 0.294 | 2.524 | 0.012 | | | 0.118 |
| GR -> EI | 0.268 | 3.003 | 0.003 | | | 0.098 |
| LS -> EI | 0.316 | 2.988 | 0.003 | | | 0.141 |
| Research Question 2 | | | | | | |
| MS -> SE | 0.206 | 2.113 | 0.035 | | | 0.067 |
| GR -> SE | 0.344 | 2.614 | 0.009 | | | 0.190 |
| LS -> SE | 0.015 | 2.143 | 0.004 | | | 0.034 |
| Research Question 3 | | | | | | |
| EI -> SE | 0.570 | 4.528 | 0.000 | | | 0.397 |
| Research Question 4 | | | | | | |
| MS x EI -> SE | 0.105 | 1.241 | 0.215 | | | 0.017 |
| GR x EI -> SE | 0.001 | 0.007 | 0.995 | | | 0.000 |
| LS x EI -> SE | 0.012 | 0.144 | 0.886 | | | 0.000 |

Notes: $f^2$ of 0.02, 0.15 and 0.35 is seen as small, medium and large, respectively; $R^2$ of 0.25, 0.5 and 0.75 are considered weak, moderate and substantial, respectively; $Q^2$ of 0.02, 0.15 and 0.35 is considered small, medium and large respectively (Hair et al. 2013).

**Figure 1: PLS-SEM output**
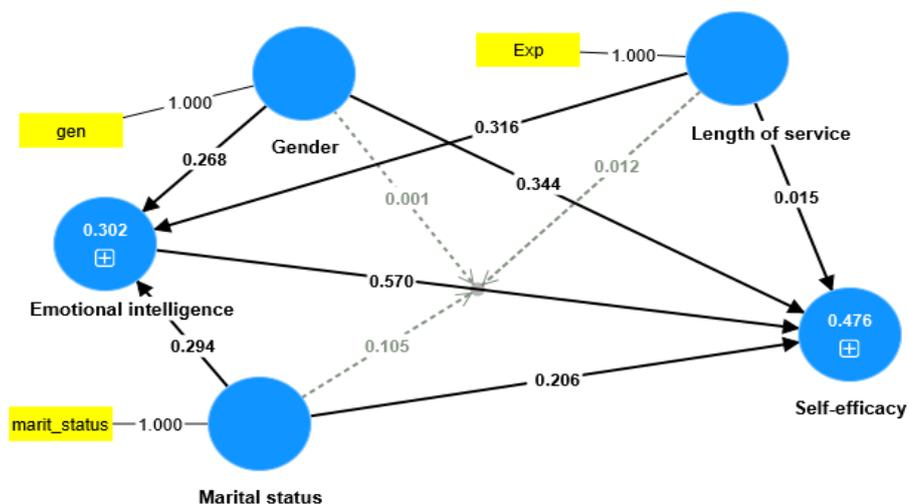


Henseler et al. (2016) stated that a heterotrait-monotrait ratio of less than 0.85 signifies no discriminant validity problem in the data. Observations emanating from the results of Table 2 indicated that constructs were well distinguished (< HTMT$^{0.85}$).

**Structural Model Assessment**

The structural model was assessed to establish the relationships among the key constructs to test the hypotheses. The coefficients (R), coefficient of determination (R$^2$), significance (ρ), predictive relevance (Q$^2$) and effect size (f$^2$) were generated as presented in Table 3.

The results in Table 3 indicate that all the background characteristics used comprising marital status (R = 0.294, t = 2.524, p = 0.012), gender (R = 0.268, t = 3.003, p = 0.003) and length of service or experience (R = 0.316, t = 2.988, p = 0.003) had a significant positive relationship with emotional intelligence of senior high school economics teachers in the schools sampled. Also, the results show that the same background variables, i.e., marital status (R = 0.206, t = 2.113, p = 0.035), gender (R = 0.344, t = 2.614, p = 0.009) and length of service or experience (R = 0.015, t = 2.143, p = 0.004) had a significant positive relationship with self-efficacy of the teachers. Furthermore, consistent with the study's hypothesis 3, it is revealed that emotional intelligence influenced teachers' self-efficacy (R = 0.570, t = 4.528, p < 0.001). However, the results show that background characteristics do not moderate the link between emotional intelligence and teachers' self-efficacy (R = 0.105, t = 1.241, p = 0.215), (R = 0.001, t = 0.007, p = 0.995) and (R = 0.012, t = 0.144, p = 0.886) for marital status, gender and experience respectively.

In terms of the coefficient of determination (R$^2$), the results indicated that 30.2 per cent (R$^2$ = 30.2; Figure 1) of variations in the teachers' emotional intelligence were accounted for by the joint account of the three background factors of the teachers. Concerning self-efficacy, it was revealed that 47.6 per cent (R$^2$ = 47.6; Figure 1) of changes in the teachers' self-efficacy could be traced to the joint contributions of the background factors (i.e., the relationship status, gender and experience) and emotional intelligence. Regarding predictive capacity, emotional intelligence (Q$^2$=0.195) and self-efficacy (Q$^2$=0.105 accordingly made moderate and small predictive capacities on the PLS-Sem model. In the same vein, as seen in Table 3, the results of the effect sizes demonstrated that the variables had various effects on emotional intelligence and self-efficacy. For instance, the findings show that emotional intelligence strongly affected the teachers' self-efficacy (EI -> SE, f$^2$ =0.397), p = 0.000.

**Effect of Background Characteristics on Emotional Intelligence of Economics Teachers**

The study revealed, as indicated in Table 3, that senior high school economics teachers' marital status (R = 0.294, t = 2.524, p = 0.012), gender (R = 0.268, t = 3.003, p = 0.003) and length of service or experience (R = 0.316, t = 2.988, p = 0.003) respectively had a significant positive impact on their emotional intelligence. The findings suggest that senior high school economics teachers' marital status, gender and work experience predict their

emotional intelligence level. This implies that the way teachers behave or react to the behaviors of economics students in terms of emotions can be influenced by these background characteristics. More experienced senior high school economics teachers would be more emotionally intelligent than less experienced senior high school economics teachers, as shown by the positive correlation coefficient (R = 0.316, t = 2.988, p = 0.003). Married senior high school economics teachers would be more emotionally intelligent than single senior high school economics teachers (R = 0.294, t = 2.524, p = 0.012), and male economics teachers would be more emotionally intelligent than female economics teachers (R = 0.268, t = 3.003, p = 0.003). This finding disagrees with other studies, which found no significant influence of background characteristics such as marital status, gender and age on emotional intelligence (Rahim & Malik, 2010; Landa et al., 2008). However, it is noteworthy that the findings confirm the findings of other studies that established that background characteristics, such as marital status and gender, affect emotional intelligence (Khodarahimi, 2015; Tasliyan et al., 2014). Again, this interesting finding further confirms the findings of Meshkat and Nejati (2017) that how people from different backgrounds communicate their emotions is a key indicator of how emotionally intelligent they are. Based on their research, Naghavi and Redzuan (2011) concluded that men are trained to suppress their emotions to appear more masculine.

In contrast, women are portrayed as required to show more emotion under similar circumstances. Furthermore, Brody et al. (2016) argued that women have the upper hand when perceiving emotions, exhibiting social skills and displaying emotional intelligence. However, women tend to be more hesitant when expressing their emotions and making important life decisions and place less value on intellectual prowess. The effect of these background characteristics on the emotional intelligence of economics teachers suggests that how teachers react to students during classroom teaching and learning interaction is subject to these background characteristics.

## Effect of Background Characteristics on Self-Efficacy of Economics Teachers
The study found, as indicated in Table 3, that marital status (R = 0.206, t = 2.113, p = 0.035), gender (R = 0.344, t = 2.614, p = 0.009) and length of service or experience (R = 0.015, t = 2.143, p = 0.004) had a

significant positive impact on the self-efficacy of senior high school economics teachers. It follows that the background characteristics of senior high school economics teachers influenced their perceptions of their ability to produce a certain level of performance, which could influence how they teach economics in the classroom. According to Bandura (1997), people's self-efficacy beliefs affect their emotions, motivations, thoughts and behaviors. These various consequences are produced by makeup in terms of their nature and cognitive beliefs. The findings further confirm the findings of Bonett (1994) that regardless of marital status, women had lower self-efficacy expectations than men regarding traditionally male occupations. Although teaching may not be viewed as either men or women-dominated, teaching economics in senior high schools appears to be dominated by male teachers. If Bonett's (1994) findings are anything to go by, one could conclude that female economics teachers were likely to have lower self-efficacy than male economics teachers. The findings further have some implications for students. Thus, students who learn from teachers with higher levels of teacher self-efficacy achieve academic performance at higher rates than those who learn from teachers with lower levels of teacher self-efficacy (Bandura, 1997; Hampton et al., 2020).

## Effect of Emotional Intelligence on Self-Efficacy of Economics Teachers
The study revealed that emotional intelligence influences the self-efficacy of senior high school economics teachers (R = 0.570, t = 4.528, p < 0.001). Furthermore, the findings revealed that emotional intelligence had a large impact or effect ($f^2$ =0.397) on the scores of teachers' self-efficacy. The meaning is that teachers with high levels of emotional intelligence can be more efficacious in teaching economics in senior high schools. Thus, teachers with emotional intelligence in self-awareness, social awareness and controlling feelings and emotions are more sensitive and self-motivated in their lessons (Tyng et al., 2017). Similarly, emotionally intelligent teachers can control and manage emotions and efficiently handle essential information that impacts students' success (Ye & Chen, 2015).

It will not be out of place when teachers in Economics are offered the necessary support and orientations to develop and handle their emotions for enhanced lesson deliveries. It will help students emulate similar emotional intelligence traits

(Bandura, 1997) and experience effective learning and class participation.

The findings corroborate the discovery of Anwar et al. (2021) who found that teachers with high emotional intelligence can use and control emotions in difficult situations, influence their motivation and cognition, and strengthen their students' learning, perception and mental and physical well-being. In addition, the study aligns with the principles engrained in Goleman's model of emotional intelligence, which states that persons with emotional intelligence can develop others, influence, communicate and effectively lead others.

### Effect of Background Characteristics on the Impact of Emotional Intelligence on Self-Efficacy of Economics Teachers

The study revealed that background characteristics of teachers did not moderate the effect of emotional intelligence on self-efficacy (R = 0.105, t = 1.241, p = 0.215; R = 0.001, t = 0.007, p = 0.995; and R = 0.012, t = 0.144, p = 0.886) for marital status, gender and experience respectively.

This suggests that when the background characteristics interact with emotional intelligence, there will not be a significant alteration in the link between emotional intelligence and teachers' self-efficacy, as confirmed by Kazmi et al. (2021). The reason is that emotionally intelligent teachers tend to excel in any adventure regardless of their nature, whether married or single, female or male or even whether they have worked long or not (Fotre, 2022).

## Conclusions and Recommendations

Based on the study's findings, it is concluded that the marital status, gender and teaching experience of economics teachers significantly affect how they manage their emotions in the economics classroom, which may affect their management of students' emotional state, behaviour and learning. Again, economics teachers' self-efficacy is a product of their marital status, gender and teaching experience. It is also concluded that teachers' level of self-efficacy is a product of their level of emotional intelligence. That is, economics teachers who become aware of how to control their emotions will experience more success in teaching the subject than economics teachers with lower emotional intelligence levels. Finally, it can be concluded that the impact of emotional intelligence on economics teachers' self-efficacy is not mitigated by the marital status, gender and teaching

experience of teachers. Therefore, it is unreasonable to suggest that teachers' marital status, gender and teaching experience would influence the link between emotional intelligence and self-efficacy.

It is recommended that school heads and school/district leaders interested in supporting teacher well-being and self-efficacy should consider training and professional development practices focused on promoting teachers' emotional intelligence. Training interventions by the Ghana Education Service, Continuous Professional Development (CPD) service providers and other educational stakeholders should be channelled towards improving self-concepts, especially emotional intelligence and self-efficacy of teachers. Again, training for teachers on emotional intelligence and self-efficacy should be targeted based on their background characteristics, such as gender, marital status and teaching experience, as they differed significantly in terms of these background characteristics.

## References

Acquah, B. Y. S., & Anti-Partey, P. (2023). Self-efficacy beliefs and performance of pre-service economics teachers: Implications for teacher training. Journal of Educational Issues, 9(1) 277 – 297.

Akdoğan, A. (2021). The predictive power of emotional intelligence on self-efficacy: a case of primary school teachers. International Journal of Curriculum and Instruction, 13(2) 1742 – 1755.

Anwar, R. H., Zaki, S., Memon, N., & Thurasamy, R. (2021). Exploring the Interplay of Trait Emotional Intelligence and ESL Teacher Effectiveness: Is Self-Efficacy the Mechanism Linking Them? SAGE Open, 11(4), https://doi.org/10.1177/21582440211061378.

Bandura, A. (1997). Self-efficacy: The exercise of control. Freeman.

Bandura, A. (1995). Self-efficacy in changing societies. Cambridge University Press.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychologist, 28, 117-148.

Bassah, M. G. (2020). Teachers' Self-Efficacy Beliefs and Ghanaian Language Curriculum Implementation in Senior High Schools in North and South Danyi

Districts, Volta Region. Unpublished master's thesis, University of Cape Coast.

Bjorklund J. P., Warstadt, M. F., & Daly, A. J. (2021). Finding satisfaction in belonging: pre-service teacher subjective well-being and its relationship to belonging, trust, and self-efficacy. Frontiers in Education 6,174. https://doi.org/10.3389/feduc.2021.639435

Boakye, M (2021). Investigating the Association between Emotional Intelligence and Socioeconomic Status of Ashesi University College Students. Afribary. Retrieved from https://afribary.com/works/investigating-the-association-between-emotional-intelligence-and-socioeconomic-status-of-ashesi-university-college-students.

Bonett, R. M. (1994). Marital status and sex: Impact on career self-efficacy. Journal of Counseling & Development, 73(2), 187–190. https://doi.org/10.1002/j.15566676.1994.tb01734.x

Brody, L.R., Hall, J.A., & Stokes, L.R. (2016). Gender and emotion: Theory, findings, and context. In: Barrett, L.F., Lewis, M., Haviland-Jones, J.M. (Eds.), Handbook of emotions, 4th ed. Guilford Press, New York, pp. 369–392.

Fotre, T. M. (2022). The impact of social-emotional curriculum training on Oregon 4th-8th grade school teachers' emotional intelligence. Doctor of Education (EdD). 189. https://digitalcommons.georgefox.edu/edd/189.

Gaol, R. L., & Sitepu, A. (2020). The influence of used good-based learning media on the value of character education and student's motivation to study. Budapest International Research and Critics in Linguistics and Education (BirLE) Journal, 3(4), 1696-1703. https://doi.org/10.33258/birle.v3i4.1299

Gibson, S. & Dembo, M. H. (1984). Teacher efficacy: a construct validation. Journal of Educational Psychology, 76(4), 569–582. https://doi.org/10.1037/t03431-000

Hampton D., Culp-Roche A., Hensley A., Wilson J. L., Otts J. A., Thaxton-Wiggins A., Fruh S., Moser D.K. (2020). Self-efficacy and satisfaction with teaching in online courses. Nurse Educ. 45(6):302–306. https://doi.org/10.1097/nne.0000000000000805.

Hair, J. F., Babin, B. J., & Anderson, R. E. (2019). Multivariate data analysis (8th ed.). Cengage.

Henseler, J., Hubona, G., & Ray, P.A. (2016). Using PLS path modeling in new technology research: Updated guidelines", Industrial Management & Data Systems, 116(1) 2-20. https://doi.org/10.1108/IMDS-09-2015-0382

Heirweg, S., De Smul, M., Merchie, E., Devos, G., & Van Keer, H. (2021). Do you reap what you sow? The relationship between primary school students' self-regulated learning and student, teacher, and school determinants. School Effectiveness and School Improvement, 32(1), 118-140. https://doi.org/10.1080/09243453.2020.1797829

Jega, S.H. &Julius, E. (2018).The effects of teachers' academic qualification and experience on students' achievement and interest in mathematics in Kebbi State. International Journal of Advanced Academic Research, Arts, Humanities and Education, 4(6), 15-29.

Kazmi, A. B., Siddiqui, U. N., & Siddiqui, S. (2021). Emotional Intelligence: Source of self-efficacy among college-level instructors of Pakistan. Performance Improvement, 60(4), 21-32. https://doi.org/10.1002/pfi.21969

Khodarahimi, S. (2015). The role of marital status in emotional intelligence, happiness, optimism and hope. Journal of Comparative Family Studies, XLVI (3) 351 – 372. https://doi.org/10.3138/jcfs.46.3.351

Landa, J .M .A, Zafra, E. L., & Martos M. P. B. (2008). The relationship between emotional intelligence, occupational stress and health in nurses: A questionnaire survey. International Journal of Nursing Studies, 45(6) 888-901. https://doi.org/10.1016/j.ijnurstu.2007.03.005

Lauermann, F., & Ten Hagen, I. (2021). Do teachers' perceived teaching competence and self-efficacy affect students' academic outcomes? A closer look at student-reported classroom processes and outcomes. Educational Psychologist, 56(4), 265-282. https://doi.org/10.1080/00461520.2021.1991355

Lawson, H. J., Yigah, M., & Yamson, P. (2021). Emotional intelligence in medical students at the University of Ghana medical school, Accra, Ghana. Ghana Medical Journal, 55(1) 52-59. https://doi.org/10.4314/gmj.v55i1.8

Madigan, D. J., & Curran, T. (2021). Does burnout affect academic achievement? A meta-analysis of

over 100,000 students. Educational Psychology Review, 33(2), 387-405. https://doi.org/10.1007/s10648-020-09533-1

Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. International Journal of Educational Research, 105, 101714. https://doi.org/10.1016/j.ijer.2020.101714

Meshkat, M & Nejati, R. (2017). Does emotional intelligence depend on gender? A study on undergraduate English majors of three Iranian Universities. Sage Open, 7(3). https://doi.org/10.1177/2158244017725796

Mohamad, M., & Jais, J. (2016). Emotional intelligence and job performance: A study among Malaysian teachers. Procedia Economics and Finance, 35, 674-682. https://doi.org/10.1016/s2212-5671(16)00083-6 .

Mohapel, P. (2015). The quick Emotional Intelligence Self-Assessment. San Diego City College MESA Program. Paul.mohapel@shaw.ca.2015.

Mugenda, O.M. and Mugenda, A.G. (2003) Research Methods, Quantitative and Qualitative Approaches. ACT, Nairobi.

Naghavi, F. & Redzuan, M. (2011). The relationship between gender and emotional intelligence. Downloaded on July 4, 2023, from https://www.semanticscholar.org/paper/The-Relationship-Between-Gender-and-Emotional-Naghavi-Redzuan/63c3184d107e804db1b7701a752f6f27d11b2c56#cited-papers

Odanga, S. J. O., Aloka, P. J. O., & Raburu, P. (2015). Influence of marital status on teachers' self-efficacy in secondary schools of Kisumu County, Kenya. Academic Journal of Interdisciplinary Studies, 4(3) 115 – 124. https://doi.org/10.5901/ajis.2015.v4n3p115

Prastiwi, D., & Hendri, Z. (2020, August). Character Education Requirement of Special Batik Works Surakarta. In 1st International Conference on Language, Literature, and Arts Education (ICLLAE 2019) (pp. 467-470). Atlantis Press. https://doi.org/10.2991/assehr.k.200804.092

Penrose, A., Perry, C., & Ball, I. (2007). Emotional intelligence and teacher self-efficacy: the contribution of teacher status and length of experience. Issues in educational research, 17(1), 107-126.

Rahim, S. H., & Malik, M. L. (2010). Emotional Intelligence & Organisational Performance:(A Case Study of Banking Sector in Pakistan). International Journal of Business and Management 5 (10)191-197. https://doi.org/10.5539/ijbm.v5n10p191

Reis, H. T., & Sprecher, S. (2009). Encyclopedia of human relationships. Sage Publications, Inc. https://doi.org/10.4135/978141295847

Schwarzer R. (2012). General Self-Efficacy Scale (GSE) Available from: http://userpage.fu-berlin.de/~health/selfscal.htm.

Shahzad, K. & Naureen, S. (2017). Impact of teacher self-efficacy on secondary school students' academic achievement. Journal of Education and Education Development, 4(1) 48 – 72. https://doi.org/10.22555/joeed.v4i1.1050

Sousa, V. D., Driessnack, M., & Mendes, I. A. C, (2007). An overview of research designs relevant to nursing: Part 1: Quantitative research designs. Rev Latino-am Enfermagem, 15(3)502-507  https://doi.org/10.1590/S0104-11692007000300022

Suhairy, M. S., Mohamed, N., Ahmad, N., Kaidi, H. M., Dzyauddin, R. A., & Sam, S. M. (2022). Emotional intelligence impacts on work performance: The case in telecommunication Malaysia research company. International Journal of Innovation and Technology Management, 19(3) https://doi.org/10.1142/S021987702240003X

Tasliyan, M., Hirlak, B., & Ciftci, G. E. (2014). The investigation of the relationship between emotional intelligence and job satisfaction with occupational burnout level of academicians. Journal of Business Research-Türk,3 (6) 63-88. https://doi.org/10.20491/isader.2014315940

Thomas, M. A., & Banki, S. (2021). Toward a framework for assessing the 'global and 'citizen's global citizenship education in Australia and beyond. Discourse: Studies in the Cultural Politics of Education, 42(5), 732-748. https://doi.org/10.1080/01596306.2020.1843113

Timm, J. M., & Barth, M. (2021). Making education for sustainable development happen in elementary schools: the role of teachers. Environmental

Education Research, 27(1), 50-66. https://doi.org/10.1080/13504622.2020.1813256

Rao, V. T. (2022). Role of emotional intelligence in classroom to improve teaching methods of teaschers. Global Journal for Research Analysis, 11(12) 73-76. https://doi.org/10.36106/gjra/5408979

Trigwell, K. (2012). Relations between teachers' emotions in teaching and their approaches to teaching in higher education. Instructional Science, 40(3), 607–621. https://doi.org/10.1007/ s11251-011-9192-3.

Tyng, C. M., Amin, H. U., Saad, M. N., & Malik, A. S. (2017). The influences of emotion on learning and memory. Frontiers in Psychology, 8, 1454. https://doi.org/10.3389/fpsyg.2017.01454

Yada, A., Björn, P. M., Savolainen, P., Kyttälä, M., Aro, M., & Savolainen, H. (2021). Pre-service teachers' self-efficacy in implementing inclusive practices and resilience in Finland. Teaching and Teacher Education, 105. https://doi.org/10.1016/j.tate.2021.103398

Ye, M., & Chen, Y. (2015). A literature review on teachers' emotional labor. Creat. Educ. 06, 2232–2240. https://doi.org/10.4236/ce.2015.620230.

**Appendix A: Constructs' Item Loadings**

| Factors | Loading | T stat | P values |
|---|---|---|---|
| EA1 <- Emotional intelligence | 0.592 | 3.459 | 0.001 |
| EA10 <- Emotional intelligence | 0.665 | 2.999 | 0.003 |
| EA4 <- Emotional intelligence | 0.739 | 2.651 | 0.009 |
| EA7 <- Emotional intelligence | 0.760 | 3.981 | 0.048 |
| EA8 <- Emotional intelligence | 0.873 | 2.026 | 0.043 |
| EA9 <- Emotional intelligence | 0.549 | 5.307 | 0.000 |
| ECM1 <- Self-efficacy | 0.576 | 7.719 | 0.000 |
| ECM2 <- Self-efficacy | 0.614 | 7.802 | 0.000 |
| ECM3 <- Self-efficacy | 0.775 | 11.155 | 0.000 |
| ECM4 <- Self-efficacy | 0.702 | 9.253 | 0.000 |
| EFM1 <- Self-efficacy | 0.775 | 11.155 | 0.000 |
| EFM2 <- Self-efficacy | 0.702 | 9.253 | 0.000 |
| EFM3 <- Self-efficacy | 0.628 | 8.139 | 0.000 |
| EFM4 <- Self-efficacy | 0.651 | 7.631 | 0.000 |
| EI1 <- Self-efficacy | 0.645 | 8.477 | 0.000 |
| EI3 <- Self-efficacy | 0.622 | 9.175 | 0.000 |
| EI4 <- Self-efficacy | 0.685 | 6.777 | 0.000 |
| EM2 <- Emotional intelligence | 0.625 | 2.232 | 0.026 |
| EM3 <- Emotional intelligence | 0.685 | 1.780 | 0.075 |
| EM4 <- Emotional intelligence | 0.734 | 2.384 | 0.017 |
| EM5 <- Emotional intelligence | 0.509 | 5.716 | 0.000 |
| EM6 <- Emotional intelligence | 0.660 | 4.153 | 0.000 |
| EM8 <- Emotional intelligence | 0.658 | 4.258 | 0.000 |
| EM9 <- Emotional intelligence | 0.768 | 2.985 | 0.003 |
| Exp <- Length of service | 1.000 | 0.000 | 0.000 |
| RM2 <- Emotional intelligence | 0.478 | 3.911 | 0.000 |
| RM3 <- Emotional intelligence | 0.703 | 10.099 | 0.000 |
| RM4 <- Emotional intelligence | 0.425 | 4.163 | 0.000 |
| RM5 <- Emotional intelligence | 0.777 | 2.792 | 0.005 |
| RM6 <- Emotional intelligence | 0.556 | 5.853 | 0.000 |
| RM7 <- Emotional intelligence | 0.684 | 8.467 | 0.000 |
| RM8 <- Emotional intelligence | 0.687 | 10.821 | 0.000 |

| | | | |
|---|---|---|---|
| SA2 <- Emotional intelligence | 0.540 | 6.226 | 0.000 |
| SA3 <- Emotional intelligence | 0.451 | 3.433 | 0.001 |
| SA5 <- Emotional intelligence | 0.529 | 4.370 | 0.000 |
| SA6 <- Emotional intelligence | 0.616 | 2.103 | 0.035 |
| SA7 <- Emotional intelligence | 0.560 | 5.074 | 0.000 |
| SA8 <- Emotional intelligence | 0.508 | 2.805 | 0.005 |
| SA9 <- Emotional intelligence | 0.592 | 5.823 | 0.000 |
| SE10 <- Self-efficacy | 0.663 | 7.482 | 0.000 |
| SE4 <- Self-efficacy | 0.683 | 7.189 | 0.000 |
| SE5 <- Self-efficacy | 0.511 | 4.653 | 0.000 |
| SE7 <- Self-efficacy | 0.526 | 5.391 | 0.000 |
| SE9 <- Self-efficacy | 0.533 | 5.537 | 0.000 |
| gen <- Gender | 1.000 | 0.000 | 0.000 |
| marit_status <- Marital status | 1.000 | 0.000 | 0.000 |
| Length of service x Emotional intelligence -> Length of service x Emotional intelligence | 1.000 | 0.000 | 0.000 |
| Gender x Emotional intelligence -> Gender x Emotional intelligence | 1.000 | 0.000 | 0.000 |
| Marital status x Emotional intelligence -> Marital status x Emotional intelligence | 1.000 | 0.000 | 0.000 |