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## Teaching Practicum -induced Stress and Coping Strategies among Pre-service Teachers in Colleges of Education in Ghana

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### Abstract

*The teaching profession is associated with stress for teachers, so it is crucial that practice teachers be aware of the realities of teaching as they prepare to become professional and licensed teachers. The study examined the stress and coping strategies of pre-service teachers during teaching practice in colleges of education in the Bono Region of Ghana. Questionnaire was used to collect data from 267 final year pre-service teachers. The internal consistency reliability of the piloted questionnaire was 0.716. Factor analysis using Principal Component Analysis (PCA) with varimax rotation and descriptive statistics were used for the data analysis. Independent sample t-test was conducted to test the hypotheses. Findings revealed that teaching practice related stressors are predominantly related to psychosocial, health and academic stressors. The study discovered that pre-service teachers engaged in recreational coping, self-care coping and social support coping. The t-test analysis showed a statistically no significant difference in gender with regard to coping strategies used by pre-service teachers. Key recommendations include providing stress management programs and counselling for pre-service teachers on teaching practice. Again, administrators of initial teacher education institutions should give seminars and provide essential training for heads and mentors of schools that host pre-service teachers to enable them understand the role limitations of pre-service teachers to avoid role overload of pre-service teachers during teaching practicum.*

**Keywords:** Pre- service teacher, stress, coping strategies, teaching practicum, Ghana, College of education

### Introduction

Over time, Ghana's teacher education system has been reorganized to meet new goals for education in order to achieve the needs of a knowledge-based society in which the teacher is a change agent (Buabeng, Ntow & Otami, 2020). To meet this paradigm, the role of the teacher in providing high-quality education in modern times must be considered, as the teacher is the pivot around which a country's educational policies are implemented (Osamwonyi, 2016). Msangya, Mkoma, and Yihuan (2016) believe that assessing a country's educational quality is impossible without the existence

of academically qualified and professionally accountable teachers. In order to promote teacher education, the government of Ghana implemented a variety of measures targeted at boosting teacher training. In September 2019, a four-year Bachelor of Education (B. Ed) program was launched to replace the previous three-year Diploma in Basic Education in Colleges of Education signaling the country's commitment to broadening teacher preparation. The new paradigm shift in teacher education in Ghana requires pre-service teachers to complete Supported Teaching in School (STS), which

replaced the Teaching Practice component of the traditional three-year Diploma in Basic Education curriculum (T-TEL, 2018).

To be successful in the classroom, pre-service teachers must complete a well-designed teaching practice program where they interact and cooperate with mentors, experienced teachers, and other members of the school community. Teaching practice is a time when pre-service teachers construct, deconstruct and reconstruct their perceptions of what it takes to be an effective teacher (Afrianto, 2017). Due to the crucial nature of teaching practice in pre-service teacher education and its strategic functions, several studies have been undertaken to explore the teaching practice in preparing would be teachers, (Lawson, Çakmak, Gündüz, & Busher, 2015; Valkov & Peeva, 2020; Cretu, 2021).

Literature reveals that pre-service teachers experience stress globally (Evans 2019; Ganesan, Talwar, Fauzan & Oon, 2018; Hatunoglu, 2020; Megawati & Astutik, 2018; Ngui & Lay, 2018; Takaoglu, 2017; Valkov & Peeva, 2020). In the United States, for example, teacher burnout, job unhappiness, poor performance, and some of the highest turnover rates ever recorded are all symptoms of teaching being one of the most stressful occupations (Greenberg, Brown & Abenavoli, 2016). The future career of teachers in training may be negatively impacted as a result of stress if not eradicated. According to Mahmoudia and Özkan (2016), the problem can be remedied by detecting stressors and providing appropriate guidance or counselling to prospective teachers during their pre-service teacher education. Studies in different part of Africa have pointed out sources of stress and its challenges on learners, teaching practice and teaching. These researchers discovered that students face high levels of academic, psychological, and health-related stress and that they use similar stress- coping methods such as adaptive techniques in teaching (Akunne & Nnadi 2021; Amankwaah, Oti-Agyen & Sam, 2017; Kiwele & Chuma 2020; Kwaah & Essilfie, 2017).

Despite growing attention to the sources of stress for pre-service teachers, there is a paucity of investigation exploring the stressors of pre-service teachers in colleges of education and the coping strategies they employ in relation to teaching practice in Ghana, according to the relevant literature (Amponsah, Adasi, Mohammed, Ampadu & Okrah, 2020). The available studies focus on distance education students and regular students in universities whose natural disposition differs from trainee teachers in colleges of education in terms of duration, time and structure of teaching practice activities (Kwaah & Essilfie, 2017). Furthermore, research into the sources of stress, its effects on teacher trainees, and how they deal with difficult situations with these obstacles is required. Taking this gap into account, the goal of this study is to uncover various sources of stress experienced by student teachers on teaching practice and find out how they cope with these difficult circumstances.

## Purpose

Findings from this study will inform curriculum planners in teacher education to help encourage the well-being of pre-service teachers so that they are not negatively affected by stress before problems are addressed. Furthermore, because employee retention and employment are vital to the stability and maintenance of a functioning educational system, understanding stress sources and possible levels of stress is critical so that proactive actions can be taken to mitigate potential negative consequences. A study like this could also provide information that can be used to develop

approaches, as well as in-service job policies and regulations, to help reduce stress.

The current study aims to investigate the sources of stress and coping strategies used by teacher trainees in Ghana's Bono region's colleges of education. This raised two major questions:

1. What are the sources of stress among pre-service teachers in Colleges of Education in the Bono Region during teaching practice?
2. What coping strategies are adopted by pre-service teachers in College of Education in the Bono Region to minimise stress during teaching practice?

Based on the above questions, the following hypothesis were raised  
**H<sub>0</sub>**: There is no statistically significant difference in gender with regard to coping strategies used by pre-service teachers to minimize stress.

**H<sub>A</sub>**: There is a statistically significant difference in gender with regard to coping strategies used by pre-service teachers to minimize stress.

## Literature Review

Several studies have investigated the topic of pre-service teachers' teaching practice and their reflections on it in the context of teaching practicum and related initial teacher education programs using various approaches (Machida, 2016; Hamaidi, Al-Shara, Aroui & Awwad, 2014; Kwaah & Essilfie, 2017; Ganesan et. al., 2018; Kiwele & Chuma, 2020). Bulgakova, Krymova, Babchuk, and Nepomniashcha (2020) found that practical experience in the process of preparing prospective teachers is a critical component in guaranteeing their ability to engage in professional tasks. A study by Cretu (2021) in Romania endorsed the idea that practical training is an important part of teacher education and that its importance should be recognized in order to provide high-quality training for future educators. Teaching practice thus, has become an important component in teachers' professional development training in initial teacher education institutions around the world as global interest in various forms of pre-service teacher research has grown (Van Katwijk, Jansen & Van Veen, 2021). Therefore, structured and successfully implemented teaching practice allow prospective teachers to get relevant experience that help them to function effectively as professional teachers when they receive the necessary knowledge in teaching.

As a result of the significant prevalence of stress elements coming from the environment, Hatunoglu (2020) describes our age as an age of stress. The topic of stress has gotten a lot of devotion in education since it has played a big role and has irrefutable consequences in the teaching and learning process (Han & Tulgar, 2019). Stress in the classroom is not experienced by only in-service teachers. Pre-service teachers, according to earlier studies (Han & Tulgar, 2020; Ivankovic 2020; Kihwele & Chuma, 2020) also endure stress before entering the teaching profession. Bergmark, Lundström, Manderstedt, and Palo (2018) concurred that teaching is becoming increasingly stressful, and that even before entering the job, student teachers have demonstrated similar stress levels. Teaching practicum, according to NGui and Lay (2018), is a very stressful environment in which trainee teachers are held to a high level, deal with a variety of student behaviors, adjust to the school climate, and so on.

Emphasis on the sources of stress among student teachers is related to academic workload, psychosocial related stressors and health related stressors encountered by student- teachers (Adasi,

Amponsah, Mohammed, Yeboah & Mintah, 2020; Akunne, 2021; Bhargava & Trivedi, 2018; Kwaah & Essilfie, 2017; Okoro, 2018; Parveen, 2016). Outside of the classroom, stress among pre-service teachers can be caused by peer rejection, relationship disintegration, depression, and low self-esteem (Adasi et.al., 2020). Several studies have supported that student teachers face numerous stressors as a result of conflict in time management and dealing with friends, families, engagement in religious activities and dealing with personal problems (Adasi et.al., 2020; Akunne, 2021; Bhargava & Trivedi, 2018; Kwaah & Essilfie, 2017, Okoro, 2018). Large class sizes and insufficient instructional resources also pose a problem for teachers and pre-service teachers alike. This creates challenges in the activities of pre-service teachers and make them stressed (Iyore, 2018). In a simulated environment, class size predicted physiological and psychological stress reactions in pre-service teachers, according to Huang, Richter, Kleickmann, and Richter (2022), were considerably higher in the large class size condition. According to Dakande, Bello and Debba, (2016) large class size and inadequate resources were part of the problems that caused job stress and affected the performance of vocational technical teachers in their study. Dealing with individual differences, evaluating students' work, organizing class work, and dealing with individual student difficulties become a challenge as a result of inadequate resources and large class size (Korang & Ubugadu, 2020).

Pre-service teachers are not immune to stress, they are likely to encounter pressures while performing their obligations as future teachers. As a result, practice teachers should be aware of how to deal with stress by identifying various coping techniques. The basic goal of coping is to lessen stress and achieve a balanced state of functioning, which is reliant on one's personality and views of life experiences, as well as the strategies employed (Abouammoh, Irfan & AlFaris, 2020). Seeking aid is one method to cope (Gustems-Carnicer & Calderón, 2012). Väisänen, Pietarinen, Pyhältö, Toom, & Soini (2017) found that prospective teachers also benefit from social support and social support is critical when beginning to teach, and that a lack of it is a source of difficulty for student teachers. Peer support can help people deal and regulate their emotions, according to Väisänen et al. (2017). Hemmings and Hockley (2002) cited by Iyore (2018) also found a number of different stress-coping techniques. These strategies include communication with others, self-help, relaxation, organization, sports participation, and so on. Self-care; including; frequent exercise and sport, eight hours of sleep per day, eating a nutritious diet, and utilizing relaxation techniques were also identified to have noticeable impact on stress reduction and increased quality of life.

## Methodology

### Research Design.

The cross-sectional survey design was adopted, which permitted the researcher to collect data from a wide number of people. According to Thomas (2020), a cross-sectional survey design is one in which data is collected from a large number of people at one time. It has the benefit of measuring current attitudes or habits and providing information in a short period of time, such as the time required to deliver the survey and collect the data (Creswell, 2012). The survey design was adopted by the researcher because surveys are used to scan fields of topics, demographics, and programs in order to quantify or describe any broad features on their experiences during teaching practicum., sources of stress and stress

coping mechanisms adopted by pre-service teachers during teaching practice for the study.

## Sample.

The data for the study was collected from 267 final year pre-service teachers from three colleges of education in Ghana's Bono Region: Berekum College of Education (BECOLED), St. Ambrose College of Education, and Al-Faruq College of Education. The sample size was determined by utilizing the Krejcie and Morgan (1970) Table. According to the Table, a population of eight hundred and seventy-eight (878) requires a minimum sample size of two hundred and sixty-six (266). Based on this, the selected sample of 267 for the study is acceptable. The sample size was chosen using stratified sampling and convenience sampling techniques. Stratified sampling, according to Nickolas and Drury (2021), is defined as the process of breaking a population into smaller groups or strata based on the members' shared features or attributes. To select participants for the study, the researcher first grouped the population into three strata to include pre-service teachers on teaching practice from the three colleges of education for the study. After the sample size for each stratum had been determined (BECOLED =159, AL-FARUQ = 52, ST. AMBROSE = 56), the researcher used convenience sampling to select basic schools and participants for the study from each stratum.

**Instrumentation.** The questionnaire for the study was designed by adapting the Occupational Stress Inventory (OSI) and Garbee's Dental Environmental Stress (DES) questionnaire modified by Amponsah et al., (2020). Some items were selected from DES and OSI and others developed by the researcher after a review of the revised form of DES and OSI to examine the stressors faced by pre-service teachers under the sub-scales: academic stressors, psycho-social stressors and health related stressors. Similarly, Personal Resource Questionnaire (PRQ) used by Davis-Roberts (2006) was adapted and used to measure the coping approaches pre-service teachers use to minimize stress. The sub-scales are recreational coping, self-care, social support and rational /cognitive coping.

After the pilot test, the researcher employed Cronbach's Alpha to assess the instrument's dependability. The piloted questionnaire has a reliability value of 0.716. The pilot test was crucial since it allowed the researcher to determine the instrument's internal consistency and, as a result, reshape and reorganize the items. It allowed the researcher to spot and correct a few ambiguities, such as unclear expression and overloaded questions.

**Table 1**

*Reliability Statistics of the Research Instrument*

Cronbach's Alpha	Number of Items	Mean	Variance	Std. Deviation
0.716	45	157.068	191.181	13.826

### Data Analysis

The Statistical Package for the Social Sciences (SPSS) version 25 was used to conduct the analysis. Factor analysis utilizing Principal Component Analysis (PCA) with varimax rotation was performed to reduce the items on sources of stress among pre-service teachers and the coping strategies among pre-service teachers to determine the dimensions of the sources of stress among the pre-service teachers. Factor analysis was used in the analysis because it allowed the researcher to focus on a few key elements rather than

examining a large number of secondary factors. Factor analysis can help with this by categorizing variables into relevant groups (Young & Pearce, 2013). The Kaiser Meyer-Olkin (KMO) sample adequacy measure, Total Variance Explained, Scree plot and Component Matrix were the results of the factor analysis.

**Principal Component Analysis of Variables of Sources Stress**

The 25 items identified in the three sub-scales representing sources of stress among pre-service teachers during teaching practice were

subjected to Principal Component Analysis (PCA). An analysis of the initial Principal Components revealed eight dimensions. After testing for the reliability of the eight clusters, components 4, 5, 6, 7 and 8 had Cronbach’s Alpha less than 0.6 and were thus removed. The 25 items identified in the three sub-scales representing sources of stress were reduced to 19 after the PCA with a Varimax Rotation was done.

**Table 2**

*KMO and Bartlett's Test of Sources of Stress*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.751
Bartlett's Test of Sphericity	Approx. Chi-Square	1521.906
	Df	300
	Sig.	0.000

The Kaiser-Meyer-Olkin (KMO) value was estimated to be 0.751. According to Yong and Pearce (2013), the Kaiser criterion is reliable when the sample size is above 250 cases, extracted communalities is at least more than 0.70 and variables less than 30. The result reveals that the data were indeed suitable for factor analysis. The Bartlett's Test of Sphericity was statistically significant (p= .000), lending credence to the factorability of the relationship structure.

**Table 3**

*Total Variance Explained for Sources of Stress*

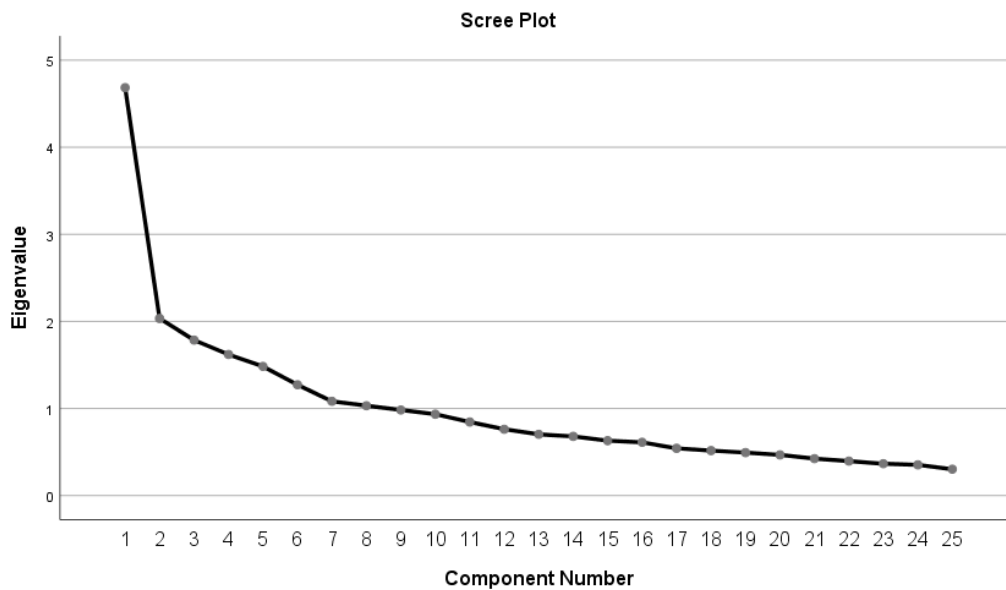
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.68	18.7	18.74	4.68	18.74	18.737	2.319	9.277	9.277
2	2.03	8.1	26.87	2.03	8.13	26.872	2.055	8.22	17.497
3	1.78	7.14	34.01	1.78	7.14	34.014	2.002	8.008	25.505
4	1.62	6.48	40.49	1.62	6.48	40.494	1.968	7.872	33.376
5	1.48	5.93	46.42	1.48	5.93	46.424	1.794	7.175	40.551
6	1.27	5.09	51.51	1.27	5.09	51.513	1.769	7.076	47.627
7	1.08	4.33	55.84	1.08	4.33	55.843	1.617	6.467	54.094
8	1.03	4.13	59.97	1.03	4.13	59.97	1.469	5.876	59.97
9	0.98	3.93	63.90						
10	0.93	3.736	67.64						
11	0.84	3.379	71.02						
12	0.76	3.045	74.06						
13	0.70	2.812	76.87						
14	0.68	2.717	79.59						
15	0.63	2.522	82.112						

16	0.61	2.445	84.557						
17	0.54	2.171	86.728						
18	0.52	2.065	88.793						
19	0.49	1.974	90.77						
20	0.47	1.868	92.64						
21	0.42	1.697	94.33						
22	0.39	1.581	95.91						
23	0.37	1.464	97.38						
24	0.35	1.412	98.79						
25	0.30	1.211	100						

Extraction Method: Principal Component Analysis.

The outcome of the Principal Component Analysis, as shown in the Table above, indicate that the initial three components showed significant eigenvalues (4.68, 2.03 and 1.78). These three elements accounted for 34.01% of the sources of stress, while the remaining items accounted for 65.99%. The Principal Component Analysis revealed eight (8) components in the total variance. Parallel Analysis and reliability coefficient were used to determine the required number of elements. Component one (1) with calculated eigenvalue of 4.684 which is greater than the tabulated eigenvalue of 1.592 was maintained. Component two (2) having calculated eigenvalue of 2.034 greater than tabulated eigenvalue of 1.502 was also maintained. Again, component three (3) was also maintained when the calculate eigenvalue of 1.785 was seen to be greater than the tabulated eigenvalue of 1.429. Component four (4) also had calculated eigenvalue of 1.620 greater than the tabulated eigenvalue of 1.372. Component five (5) with eigenvalue of 1.483 also appeared to be greater than the tabulated eigenvalue of 1.315 and was maintained. Component six (6) was also accepted because the calculated eigenvalue of 1.272 was greater than eigenvalue of 1.263. Nevertheless, Factor seven (7) which had calculated eigenvalue of 1.082 lesser than the tabulated eigenvalue of 1.216 was rejected. Similarly, Component eight (8) with calculated eigenvalue of 1.032 lesser than the tabulated eigenvalue of 1.174 was also rejected. However, based on the computed reliability coefficient, all the six (6) accepted factors were reduced to the first three (3) factors. The fourth to the twenty-fifth parts were thus removed.

**Fig 2**  
*Scree Plot of Eigenvalues for the Accepted Factors for Sources of Stress*



A scree plot was used to further evaluate the components kept. The scree plot reveals that the eigenvalues of the first three factors are above 1, indicating that they can be preserved. Additionally, a varimax rotation was performed to illustrate the loadings of the three principal components.

## Principal Component Analysis of Variables for Coping

Nineteen (19) items identified in the three sub-scales representing coping strategies utilized by pre-service teachers during teaching practice were subjected to Principal Component Analysis (PCA). An analysis of the initial Principal Components revealed six dimensions. After testing for the reliability of the six clusters, components 4, 5 and 6 had Cronbach's Alpha less than 0.6 and were thus removed.

**Table 4**

*KMO and Bartlett's Test of Coping Factors*

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.708
Bartlett's Test of Sphericity	Approx. Chi-Square	1005.937
	Df	171
	Sig.	0.000

The Kaiser-Meyer-Olkin (KMO) value was estimated to be .708, exceeding the generally recognized value of .6. According to Yong and Pearce (2013), the Kaiser criterion is reliable when the sample size is above 250 cases, extracted communalities is at least more than .70 and variables less than 30. The result reveals that the data were indeed suitable for factor analysis. The Bartlett's Test of Sphericity was statistically significant ( $p=000$ ), lending credence to the factorability of the relationship structure.

**Table 5**

*Total Variance Explained of Coping Strategies*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.66	19.2	19.2	3.66	19.25	19.25	2.21	11.67	11.68
2	2.01	10.6	29.8	2.01	10.59	29.83	2	10.52	22.20
3	1.54	8.0	37.9	1.54	8.09	37.93	1.88	9.89	32.10
4	1.42	7.5	45.4	1.42	7.49	45.42	1.73	9.13	41.23
5	1.27	6.7	52.1	1.27	6.69	52.11	1.70	8.96	50.19
6	1.08	5.6	57.7	1.08	5.66	57.77	1.44	7.58	57.77
7	0.94	4.9	62.7						
8	0.87	4.6	67.3						
9	0.83	4.4	71.7						
10	0.77	4.1	75.7						
11	0.71	3.7	79.5						
12	0.68	3.6	83.						
13	0.61	3.2	86.2						
14	0.58	3.1	89.3						
15	0.51	2.7	92.0						
16	0.43	2.3	94.3						
17	0.39	2.0	96.3						
18	0.36	1.9	98.2						
19	0.33	1.7	100						

Extraction Method: Principal Component Analysis.

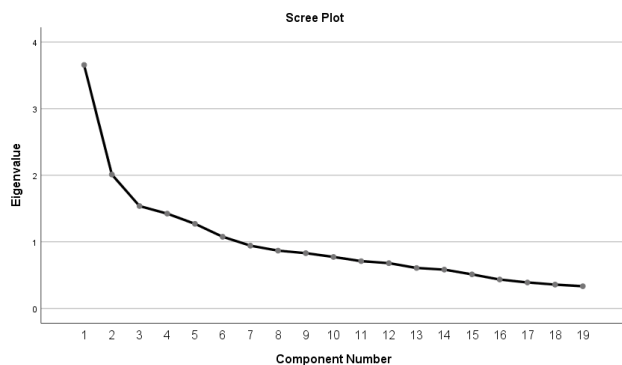
The results of the Principal Component Analysis, as shown in the Table above, indicates that the initial three components showed significant eigenvalues (3.66, 2.01 and 1.54). These three elements accounted for 37.9 % of the coping strategies, while the remaining items accounted for 62.1%.

The Principal Component Analysis revealed six components in the total variance. Parallel Analysis and reliability coefficient were used to determine the required number of elements. Component one (1) with calculated eigenvalue of 3.657 which is greater than the tabulated eigenvalue of 1.497 was maintained. Component two (2) having calculated eigenvalue of 2.012 greater than tabulated

eigenvalue of 1.3972 was also maintained. Again, component three (3) was also maintained when the calculated eigenvalue of 1.537 was seen to be greater than the tabulated eigenvalue of 1.326. Component four (4) also had calculated eigenvalue of 1.423 greater than the tabulated eigenvalue of 1.270. Component five (5) with eigenvalue of 1.271 also appeared to be greater than the tabulated eigenvalue of 1.213 and was maintained. However, component 6 was rejected because the calculated eigenvalue was 1.076 which is less than the tabulated eigenvalue of 1.1604.

Based on the computed reliability coefficient, all the 5 accepted factors were reduced to the first three (3) factors. The fourth to the nineteenth parts were thus removed

**Fig 3**  
*Scree Plot of Eigenvalues for the Accepted Factors for Coping Strategies*



indicating that they can be preserved. Additionally, a varimax rotation was performed to illustrate the loadings of the three principal components.

### Ethical Considerations

Respondents' rights were respected at all stages of the study. Consent and confidentiality were among the factors considered in order to promote and protect participants' rights and interests. To gain the agreement of the chosen respondents, all the study's crucial aspects, including its goals and objectives were provided to the chosen respondents. Participants were told that they could participate in the study willingly or withdraw at any point if they felt uncomfortable. The respondents were not compelled to participate in the study in this way. Participants' confidentiality was further protected by not allowing them to write their names on the questionnaire.

### Findings and Discussions

This section presents the sources of stress among pre-service teachers, stress and coping techniques employed by pre-service teachers during teaching practice.

#### Sources of stress among pre-service teachers during teaching practice.

**Table 6**  
*Descriptive Statistics of Variables for Sources of Stress*

Stressor	Mean	Std. Deviation
Academic Related	35.43	4.98
Psychosocial Related	33.98	6.12
Health Related	19.38	4.26

Source: Field data, 2022

Table 6 reveals that academic related stress has the highest (M=35.43, SD=4.98). This is followed by psychosocial related stressors of (M=33.98, SD=6.12). Finally, the least sub-scale is health related having (M=19.38, SD=4.26).

### Descriptive Statistics for the specific Sub-scales

The Tables below show the specific mean and standard deviation of items under the three factors.

**Table 6.1**  
*Descriptive Statistics of Academic Related Stress*

Items	Mean	Std. Deviation
Engagement in lesson notes preparation and instructional delivery	4.57	0.58
Assessment and evaluation of pupils	4.54	0.66
Large class size	4.34	0.800
Inadequate resources to get job done.	4.15	0.93
Changes and inconsistencies in academic calendar	4.09	1.07
Facing financial pressure	3.76	1.12
Mentors and other teachers taking advantage of student teachers to feel relaxed.	3.68	1.38
I work under tight conditions	3.32	1.09
My mentor does not provide useful feedback	2.97	1.24

Source: Field data, 2022

**Table 6.2**  
*Descriptive Statistics for Health-Related Stress*

	Mean	Std. Deviation
I have been tired lately.	3.46	1.04
Recently, my energy level has been poor.	3.40	1.10
I have trouble falling and staying asleep	3.36	1.07
My eating habits are inconsistent.	3.21	1.11
I experience aches and pains I cannot explain.	3.15	1.09
I have unplanned weight gains	2.79	1.20

Source: Field data, 2022.

**Table 6.3***Descriptive Statistics of Psychosocial Related Stressors*

	Mean	Std. Deviation
I engage in religious activities outside the school	4.10	1.02
I engage in recreational/ sporting activities outside the school.	3.99	1.11
Conflict in time management	3.76	1.09
I take part in communal activities outside the school community.	3.69	1.18
Inadequate time for relaxation	3.55	1.29
Dealing with co-mentees	3.19	1.22
I engage in economic activities outside the school community.	3.12	1.36
Relationship problems	3.03	1.39
Loneliness	2.89	1.32
Rejection from friends and colleagues	2.65	1.27

Source: Field data, 2022

**Table 7***Results of Rotated Component Matrix for Sources of Stress*

Factor	Component		
	1	2	3
<b>Health related</b>			
Recently, my energy level has been poor	0.774		
I experience aches and pains I cannot explain.	0.644		
My eating habits are inconsistent.	0.641		
I have unplanned weight gains	0.613		
<b>Psychosocial related</b>			
I engage in recreational/ sporting activities outside the school.		0.803	
I take part in communal activities outside the school community.		0.726	
Rejection from friends		0.704	
Loneliness		0.696	
Inadequate time for relaxation		0.69	
Conflict in time management		0.674	
Dealing with co-mentees		0.661	
Relationship problems		0.61	
I engage in religious activities outside the school		0.60	
<b>Academic Related</b>			

Large class size	0.729
Mentors and other teachers taking advantage of student teachers to feel relaxed.	0.727
Changes and inconsistencies in academic calendar	0.666
My mentor does not provide useful feedback	0.655
Inadequate resources to get job done.	0.583

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization a Rotation converged in 9 iterations

From the Table, in terms of health-related stress, reduction in the level of energy (0.774), was found as a significant source of stress. Pre-service teachers also responded that they experience aches and pains (0.644), this was followed by inconsistency in eating habits (0.641) which confirms the works of Amponsah et.al., (2020). Also gaining of unplanned weight which yielded (0.613) was also confirmed as a stressor related to health. The findings are consistent with other research findings at precise colleges, universities on stressors encountered by student teachers Adasi et. al., 2020; Akunne, 2021; Bhargava & Trivedi, 2018; Kwaah & Essilfie, 2017; Okoro, 2018; Parveen, 2016).

Among the psychosocial related stressors, key issues identified to be sources of stress among pre-service teachers in colleges of education were engagement in recreational/ sporting activities after school (0.803) was identified as the highest psychosocial stressor followed by pre-service teachers taking part in communal activities outside school (0.704). Further, rejection from friends showed (0.704), loneliness (0.696), inadequate time for relaxation (0.69), Conflict in time management (0.674), dealing with co-mentees (0.661), relationship problem (0.61), and engagement in religious activities (0.60). Conflict in time management, and dealing with co-mentees as sources of stress are consistent with the findings of (Adasi et.al., 2020; Amponsah et. al., 2020;) in their study that sought to find the stressors and coping strategies of teacher education students at the University of Ghana. Further, "inadequate time for relaxation", "religious activities", "rejection from friends" and "relationship problems" as sources of stress were inconsistent with the study by Amponsah et. al., (2020). These were however consistent with similar studies conducted by (Adasi et.al., 2020; Akunne, 2021; Bhargava & Trivedi, 2018; Kwaah & Essilfie, 2017).

The findings revealed that the highest stressor in relation to academic among pre-service teachers is large class size (0.729). Class size is one of the key educational issues that emerging countries have been grappling with. Ghana, as a developing country, is no different, with its fair share of this issue at the pre-university levels of education. For example, Korang and Umbugadu (2020), found that large class sizes in Ghanaian schools result in insufficient instructional time on the timetable, making it difficult for regular teachers in basic schools to fully engage and provide adequate time for children with special needs in the regular classroom. Findings of the current study confirm other related works conducted on teacher stress (Adasi et, al., 2020; Bhargava & Trivedi, 2018; Dakande et. al., 2016; Huang et. al., 2022; Iyore 2018). Another major stressor that was pointed out by pre-service teachers was mentors and other teachers taking advantage of their presence to feel relaxed (0.727). This means that the workload of pre-service teachers gets increased with works (conducting of



assembly, marking of registers, assessment of pupils, and taking major part in co-curricular activities) that are supposed to be done by their mentors and other teachers which makes them overburdened. This finding is consistent with related works (Quraishi, Aziz & Siddiquah, 2018; Sklaalvik & Sklaalvik, 2015) that work overload affects pre-service teachers while they perform student teaching responsibilities. Changes and inconsistencies of academic program (0.66) and mentors failing to provide feedback (0.655) were also identified as sources of stress. This is consistent with the findings of a study conducted in Tanzania by Msangya et al., (2016) that teaching practice was seen stressful to pre-service teachers due to the mismatch of the teaching practice period and the academic calendar. The findings also revealed inadequate teaching and learning material (0.583) to be a major stressor among pre-service teachers on teaching practice in colleges of education in the Bono Region of Ghana which is consistent with the findings of (Adasi et al., 2020; Amankwaah et al., 2017; Kwaah & Elsilfie, 2017).

**Table 8**  
*Factor Component and Reliability Test*

Factor component	Latent Component	No of Item	Reliability
F1	Health	4	.710
F2	Psychosocial	9	.679
F3	Academic	5	.667

Table 8, summarizes the three components extracted. The items had a high loading on the factors (F1, F2 and F3) with reliability coefficient of 0.710, 0.679 and 0.667. The reliability coefficient of the three factors indicated met the Cronbach's Alpha greater than 0.6, making the variables exhibit internal consistency. The study thus reveals that the sources of stress among pre-service teachers in the Bono Region of Ghana are health, psychosocial and academic related stressors. This is consistent with previous studies that identified academic burden, psychological stresses and health related stressors as sources of stress faced by student teachers (Adasi et al., 2020; Akunne, 2021; Okoro, 2018; Parveen, 2016).

### Coping strategies used by pre-service teachers during teaching practice.

This research question intended to find out the coping strategies pre-service teachers on teaching practice in colleges of education in the Bono Region use to minimize stress.

**Table 9**  
*Descriptive Statistics of Variables for Coping Strategies*

	Mean	Std. Deviation
Social Support Coping	25.89	2.88
Rational/ Cognitive Coping	20.53	2.68
Self-care Coping	20.14	3.50
Recreational Coping	15.05	2.98

Table 9 illustrates the mean and standard deviation of the four coping sub-scales utilized in the study. The Table reveals that the sub scale social support coping is the highest with (M=25.89, SD=2.88). This is followed by rational/ cognitive coping which also shows (M=20.53, SD=2.68). Self-care coping follows with

mean and standard deviation representing (M=20.14, SD=3.50). The last on the Table is the sub-scale recreational coping with (M=15.05, SD=2.98).

### Descriptive Statistics for the specific Coping Sub- scales

The Tables below show the specific mean and standard deviation of items under the four factors.

**Table 9.1**  
*Descriptive Statistics of Social support Coping*

Items	Mean	Std. Deviation
At least one important person in my life values me.	4.32	0.85
I've received assistance with crucial tasks.	4.318	0.73
I can talk about my worries with at least one sympathetic individual.	4.318	0.75
I know who to call if I need assistance at work.	4.285	0.89
I have a group of friends who appreciate me.	4.221	0.8

**Table 9.2**  
*Descriptive Statistics of Rational/Cognitive Coping*

Items	Mean	Std. Deviation
When presented with a decision, I consider the implications of my options	4.38	0.67
I can set priorities for how I spend my time	4.35	0.67
I have a technique for avoiding distractions.	4.18	0.89
When confronted with a challenge, I take a systematic approach.	3.94	1.06
When I get home, I am able to forget about my job.	3.67	1.25

Source: Field data, 2022

**Table 9.3**  
*Descriptive Statistic of Self-care Coping*

Items	Mean	Std. Deviation
I avoid excess use of alcohol.	4.41	0.94
I don't eat or drink things I know are bad for me.	4.35	0.96
My eating habits are really strict.	4.19	1.01
I engage in meditation	3.81	1.06

I get regular physical check-ups.	3.37	1.20
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Source: Field data, 2022

**Table 9.4**

*Descriptive Statistics of Recreational Coping*

Items	Mean	Std. Deviation
In my spare time, I can do whatever I want.	4.11	1.01
I schedule time for activities that I enjoy.	3.97	0.98
I spend a lot of my free time participating in group activities (e.g., Sports, music, painting).	3.75	1.06
I don't think about work when I'm vacationing.	3.23	1.26

Source: Field data, 2022

**Table 10**

*Rotated Component Matrix of Coping Strategies*

Factor	Component		
	1	2	3
<b>Social Support</b>			
I have a group of friends who appreciate me	0.725		
I know who to call if I need assistance at work	0.639		
At least one important person in my life values me	0.613		
I can talk about my worries with at least one sympathetic individual	0.552		
I've received assistance with crucial tasks	0.426		
<b>Recreational Coping</b>			
I spend a lot of my free time participating in group activities (e.g., Sports, music, painting).		0.835	
I schedule time for activities that I enjoy.		0.828	
In my spare time, I can do whatever I want.		0.628	
<b>Self-care Coping</b>			
I avoid excess use of alcohol.			0.827
I engage in meditation			0.776
I don't eat or drink things I know are bad for me.			0.714
I get regular physical check-ups.			0.700
My eating habits are really strict.			0.479

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization a Rotation converged in 21 iterations.

The Varimax Rotation Matrix for the social support coping strategy among pre-service teachers on teaching practice in colleges of education in the Bono Region revealed key elements as:

"I have a group of friends who appreciate me" being the highest coping element under social coping (0.725). This is followed by I know who to call if I need assistance at work (0.639). Again, pre-service teachers also accented to the element there is at least one person important to who value me (0.613) and finally there is at least one sympathetic person with whom I can discuss my concerns (0.552). It is evident that the pre-service teachers who participated in the study mostly resort to social support to deal with stress. Related research works that sought to find the use of social support coping among pre-service teachers and students in related fields during teaching practice (Ganesan et. al.,2018; Hatunoglu, 2020; Iyore 2018; Sampson -Akpan et al., 2017; Väisänen et. al., 2017) are in confirmation with the finding of this study.

Among the recreational coping, key issues identified to be coping strategies used by pre-service teachers in colleges of education were spending enough time in participants activities e.g., sports, music, painting which the study revealed as the highest coping strategy with a score of (0.835). This confirms the use of sports as a coping strategy by student teachers during teaching practice as in related findings (Ganesan et. al., 2018; Kwaah & Essilfie; 2017). Next under the recreational coping is setting aside time to do things pre-service teachers really enjoy and finally the ability to do what one wants in his/her free time (0.828). The use of recreational coping among pre-service teachers in the study is not different from other related studies that found the use of recreational coping as the main coping strategies among pre-service teachers during teaching practicum (Davis-Roberts, 2006; Sampson -Akpan et.al., 2017; Akunne, 2021).

In relation to self-care coping, avoiding excess use of alcohol i.e. 0.827 was the highest coping strategy identified by pre-service teachers in the study. This demonstrates that pre-service teachers on teaching practice in the Bono Region colleges of education do not use drugs or stimulants to reduce stress. This conclusion contradicts popular belief in Ghanaian society that some pre-service teachers abuse alcohol to cope with stress. This is in line with the findings of Kwaah and Elssilfie (2017), who discovered that the majority of pre-service teachers do not use tobacco, alcohol, or drugs to deal with stress. This is however inconsistent with the findings of Iyore, (2018) who reported that the 2<sup>nd</sup> coping strategy out of the 8 identified used by teachers in reducing stress was resorting to the use of drugs or stimulants to reduce pain by pre-service teachers. The finding is also in contrast with the finding of Ganesan et al. (2018) that some pre-service teachers cope with the aid of drugs, alcohol and smoking which are counterproductive. Other self-care coping strategies included engagement in meditation (0.776), avoiding eating or drinking things that pre-service teachers know are unhealthy (0.714), getting regular checkups (0.700) and being careful of their diet (0.479). The use of meditation as a form of coping by pre-service teachers confirms the findings of related works on coping strategies used by student teachers (Amponsah et. al., 2020; Ganesan et. al., 2018).

**Table 11**

*Factor Component and Reliability Test of Coping Strategies*

Factor Component	Latent Component	No of Items	Reliability
F1	Social support	5	.631
F2	Recreational	3	.710
F3	Self-care	5	.701

The Table shows the summary of the remaining three components on the factors intended to find out the coping strategies of pre-service teachers after the elimination of rational/cognitive coping. The items had a high loading on the factors (F1, F2 and F3) with reliability coefficient of 0.710, 0.701 and 0.631. The reliability coefficient of the three factors being greater than 0.6 indicated that the variables exhibited internal consistency. The study revealed that the coping strategies used by pre- service teachers on teaching practice in colleges of education in the Bono Region of Ghana are self-care coping, recreational coping, social support coping. The findings are consistent with outcomes of similar studies that cited self-care, social support and recreational coping as part of coping

strategies used by student- teachers to minimize stress (Akunne, 2021; Davis-Roberts, 2006; Iyore, 2018). However, the elimination of rational/cognitive coping from the factors is inconsistent with the work of Davis-Roberts (2006) which mentioned rational/coping as part of the coping strategies adopted by teachers to minimize stress.

### Testing the hypothesis

Table 12 presents the results of the independent sample t-test performed on the responses of male and female pre-service teachers.

**Table 12**  
*Independent sample t-test of Male and Female Coping Strategies*

Coping	Gender	N	Mean	Std. Deviation	T	df	P-value
Self-care	Female	116	20.456	3.146	1.288	265	0.199
	Male	151	19.90	3.744			
Recreational Coping	Female	116	11.724	2.440	-.587	265	0.558
	Male	151	11.900	2.429			
Social Support	Female	116	21.500	2.619	-.010	265	0.992
	Male	151	21.503	2.632			

\*P > 0.05\*

The Table shows a no significant difference between the mean coping sub-scale, self-care coping of female (n=116, M=20.456, Std. D= 3.146) and male (n=151, M=19.90, Std. D= 3.744). From the Table, since  $p=0.199 > 0.05$ , the null hypothesis is maintained to conclude that there is no significant difference in gender with regard to pre-service teachers' self-care coping strategy. This result contradicts the findings of Davis Roberts (2006) who found that there was a difference in self-care coping among male and female faculty and staff at Northern Caribbean University in Jamaica. In determining the difference in gender with regard to recreational coping of pre-service teachers, it was revealed (n=116, M=11.724, Std. D=2.440) for female and (n=151, Mean=11.900, Std. D=2.429) for male. Under recreational coping,  $p= 0.558 > 0.05$ . This shows that there is no significant difference in gender with regard to the coping sub scale recreational coping. For this, the null hypothesis is accepted. This however, confirms the findings of Davis Roberts who used the three sub scales and found no difference in gender with regards to social coping and recreational coping. The Table further reveals a no significant difference between the mean social support coping sub-scale of females and males. This is seen on the Table under social support coping for females (n= 116, Mean=21.500, Std. D= 2.619) and males (n=151, Mean = 21.503, Std. D = 2.632). From the Table  $p= 0.992 > 0.05$  making way for the null hypothesis to be accepted.

According to the findings of the study, there was no significant difference in the use of coping mechanisms by male and female pre-service teachers at colleges of education in Bono Region of Ghana when faced with a stressful incident during teaching practice. The findings contradict the findings of Samira, Ali, Sajida, Saed and Nadia (2015), who found a difference in coping methods between female and male undergraduate medical students. However, the data gathered confirms several studies carried out to determine the difference in coping strategies among student-

teachers with regard to gender (Adasi et. al., 2020; Hatunoglu, 2020; Yikealo &Tareke, 2018).

### Conclusion and Recommendations

It is an irrefutable fact that stress is inevitable in the life of individuals and over the years stress has presented challenges to professional in every sector of life which the pre-service teacher is not an exemption (Balakrishnan, Bahari & Paul, 2017). Maintaining the standard and avoiding the negative consequences of stress on the activities of pre-service teachers during teaching practice depends on the coping strategies they adopt. One of the study's main findings is that teaching practicum causes pre-service teachers to have stressful situations. Based on the responses of pre-service teachers in this study, practicum-related experiences are mostly related to psychosocial, health, and academic-related stressors. The study thus revealed that the private activities of pre-service teachers make them more stressed than the professional activities they are expected to engage in. Also, mentee role overload was identified as a major source of stress among pre-service teachers during teaching practice since mentors and teaching practice host staff take advantage of the presence of the pre-service teachers to feel relaxed. The psychosocial stressors were engagement in recreational activities outside the school, engagement in communal activities, rejection from friends, loneliness, inadequate time for relaxation, conflict in time management, dealing with co-mentees, relationship problem and engagement in religious activities. Key sources of stress discovered during the study in relation to health-related issues included: reduction in the level of energy of pre-service teachers, experiencing aches and pains, inconsistency in eating habits and gaining of unplanned weight. Lastly, about academic related stress, large class size was seen to be a key factor that causes stress among pre- service teachers. Also, changes and inconsistencies in academic calendar, mentors not providing useful feedback and inadequate resources to get job done were the major academic stressors reported by pre-service teachers. The coping strategies used by student-teachers in the Bono Region during teaching

practice are recreational coping, self-care coping and social support. Participating in sporting activities, setting aside time to do what pre-service teachers enjoy, the ability to do what one wants in his/her free time, building circle of friends and seeking assistance from friends were the main activities that pre-service teachers embark on in relation to recreational coping. In relation to self-care coping, avoiding excess use of alcohol, engagement in meditation, avoiding the eating or drinking of things that are unhealthy, getting regular checkups and being careful of their diet were the coping strategies identified by pre-service teachers in the study. Finally, no significant difference was found between male and female pre-service teachers and coping strategies used to minimize the stressful event they experience during teaching practice.

Teaching practice has emerged as the most significant and reliable means of instilling in pre-service teachers the practical competencies required to function effectively as student teachers and subsequently as full-fledged teachers. In spite of its importance, pre-service teachers endure a variety of challenges that might negatively impact their activities, preventing them from getting the most out of their practicum experience. Based on the findings, it is recommended incoming practice teachers will be provided seminars and forums about the stressors and coping mechanisms that they may encounter soon in the field of teaching, so that they can learn strategies for dealing with the various stressors. In addition, the teaching practice unit should create a students' support services unit that will devise policies to help relieve stress, such as a counseling unit that would organize stress management program for pre-service teachers on teaching practice. Pre-service teachers should be made aware of the exact actions they will be asked to conduct during teaching practice in order to comprehend their role boundaries. They should be encouraged to participate in social activities and program to enable them socialize and create support systems among themselves. This calls for administrators of initial teacher education institutions to give seminars and provide required training for heads and mentors of schools that host pre-service teachers in order for them to understand the role limitations of pre-service teachers and avoid mentee role overload. Supervising instructors and cooperating teachers should also be encouraged to offer support to practice teachers in order to help them cope with the difficulties.

## References

1. Abouammoh, N., Irfan, F., & AlFaris, E. (2020). Stress coping strategies among medical students and trainees in Saudi Arabia: a qualitative study. *BMC Medical Education*, 20(1), 1-8.
2. Adasi, G. S., Amponsah, K. D., Mohammed, S. M., Yeboah, R., & Mintah, P. C. (2020). Gender differences in stressors and coping strategies among teacher education students at University of Ghana. *Journal of Education and Learning*, 9(2), 123-133.
3. Afrianto, A. (2017). Pre-Service Teachers' Integration into Teachers' Community during Teaching Practicum. *International Journal of Educational Best Practices*, 1(1), 3-18.
4. Akunne, L. I., & Nnadi, G. C. (2021). Causes of Stress and Coping Strategies among Final Year Students in Tertiary Institutions in Nigeria. *Advances in Research*, 22(2), 28-35.
5. Amankwah, F., Oti-Agyen, P., & Sam, F. K. (2017). Perception of Pre-Service Teachers towards the Teaching Practice Programmeme in College of Technology Education, University of Education, Winneba. *Journal of Education and Practice*, 8(4), 13-20.
6. Amponsah, K. D., Adasi, G. S., Mohammed, S. M., Ampadu, E., & Okrah, A. K. (2020). Stressors and coping strategies: The case of teacher education students at University of Ghana. *Cogent Education*, 7(1), 1727666.
7. Balakrishnan, P., Bahari, S., & Paul, J. (2017). Impact of predisposing factors on academic stress among pre-service teachers. *International Journal of Medical Research and Health Sciences*, 6(10), 173-178.
8. Bergmark, U., Lundström, S., Manderstedt, L., & Palo, A. (2018). Why becomes a teacher? Student teachers' perceptions of the teaching profession and motives for career choice. *European Journal of Teacher Education*, 41(3), 266-281.
9. Bhargava, D., & Trivedi, H. (2018). A study of causes of stress and stress management among youth. *IRA-International Journal of Management & Social Sciences*, 11(03), 108-117.
10. Buabeng, I., Ntow, F. D., & Otami, C. D. (2020). Teacher Education in Ghana: Policies and Practices. *Journal of Curriculum and Teaching*, 9(1), 86-95.
11. Bulgakova, O., Krymova, N., Babchuk, O., & Nepomniashcha, I. (2020). Problems of the Formation of Readiness of Future Preschool Teachers for Professional Activities. *Romanian Journal for Multidimensional Education/Revista Romaneasca pentru Educatie Multidimensionala*, 12 (2).
12. Creswell, J. W. (2012). *Educational Research: planning, conducting and evaluating quantitative and qualitative research (4<sup>th</sup> Ed.)*. Boston: Pearson Inc.
13. Cretu, D. M. (2021). Practicum in Early Childhood Education: Student Teachers' Perspective. *Revista Romaneasca pentru Educatie Multidimensionala*, 13(1Sup1), 261-278.
14. Dankade, U., Bello, H. & Deba, A. (2016). Analysis of job stress affecting the performance of secondary schools' vocational technical teachers in north east, Nigeria. *Journal of Technical Education and Training*, 8(1), 43-52.
15. Davis-Roberts, G. (2006). *Sources of stress, levels of stress, and coping strategies of faculty and staff at Northern Caribbean University*. Andrews University.
16. Di Leo, G., & Sardanelli, F. (2020). Statistical significance: p value 0.05 threshold, and application to radiomics- reasons for a conservative approach. *European Radiology Experimental* 4(1),1-8.
17. Evans, K. (2019). *Preservice Teachers and Perceived Stress: A Comparative Study*
18. Ganesan, Y., Talwar, P., Fauzan, N., & Oon, Y. B. (2018). A study on stress level and coping strategies among undergraduate students. *Journal of Cognitive Sciences and Human Development*, 3(2), 37-47.
19. Greenberg, M. T., Brown, J. L., & Abenavoli, R. M. (2016). Teacher stress and health effects on teachers, students, and schools. *Edna Bennett Pierce Prevention Research Center, Pennsylvania State University*, 1-12.
20. Gustems-Carnicer, J., & Calderón, C. (2013). Coping strategies and psychological well-being among teacher

- education students. *European Journal of Psychology of Education*, 28(4), 1127-1140.
21. Hamaidi, D., Al-Shara, I., Arouri, Y., & Awwad, F. A. (2014). Student-teacher's perspectives of practicum practices and challenges. *European Scientific Journal*, 10(13).
  22. Han, T., & Tulgar, A. T. (2019). Analysis of the pre-service teachers' teaching anxiety and coping strategies: A Turkish Elementary School Context. *Gist: Education and Learning Research Journal*, (19), 49-83.
  23. Hatunoglu, B. Y., (2020). Stress coping strategies of university students. *Cypriot Journal of Educational Science*. 15(5), 1320 –s 1336.
  24. Huang, Y., Richter, E., Kleickmann, T., & Richter, D. (2022). Class size affects preservice teachers' physiological and psychological stress reactions: An experiment in a virtual reality classroom. *Computers & Education*, 104503.
  25. Ivanković, M. (2020). Sources of Stress, Coping Strategies with Stress and Job Satisfaction of Teachers in Art Schools. *Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje*, 22(Sp. Ed. 1), 203-222.
  26. Iyore, C. (2018). Stressors, effects and coping strategies among teachers in secondary schools in Edo State, Nigeria. *International Journal of Research-Granthaalayah*, 6(9), 137-147.
  27. Kihwele, J. E., & Chuma, M. M. (2020). Understanding pre-service teachers' emotion experience during teaching practice in Tanzania: Causes, management strategies and the impacts in teaching. *environment*, 11(9), 98-105.
  28. Korang, I. G., & Ubugadu, M. A. (2020). Regular teachers' instructional approaches to teaching children with special needs in selected basic schools in Sunyani municipality, Ghana. *Journal of Educational Research in Developing Areas*, 1(2), 112-126.
  29. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, 30 (3), 607-610
  30. Kwaah, C. Y., & Essilfie, G. (2017). Stress and coping strategies among distance education students at the University of Cape Coast, Ghana. *Turkish Online Journal of Distance Education-TOJDE*, 18(3), 120–13.
  31. Lawson, T., Çakmak, M., Gündüz, M., & Busher, H. (2015). Research on teaching practicum—a systematic review. *European journal of teacher education*, 38(3), 392-407.
  32. Machida, T. (2016). Japanese Elementary School Teachers and English Language Anxiety. *TESOL Journal*, 7(1), 40-66.
  33. Mahmoudia, F., & Özkan, Y. (2016) Practicum Stress and Coping Strategies of Pre-service English Language Teachers. *Procedia - Social and Behavioral Sciences* 232, 494 – 501.
  34. Megawati, F., & Astutik, Y. (2018). Teaching practicum: Investigating EFL pre-service teachers' self-efficacy. *English Review: Journal of English Education*, 7(1), 125-136.
  35. Msangya, B. W., Mkoma, S. L., & Yihuan, W. (2016) Teaching Practice experience for undergraduate student teachers: A Case Study of the Department of Education at Sokoine University of Agriculture, Tanzania. *Journal of Education and Practice*, 7 (14), 113-118.
  36. Ngui, G. K., Y. F. Lay, Y. F. (2018) Investigating the Effect of Stress-Coping Abilities on Stress in Practicum Training. *The Asia-Pacific Education Researcher* 27(4), 336-343.
  37. Nickolas, S., & Drury, A. (2021). How stratified random sampling works. Investopedia.
  38. Okoro, E. (2018). *Assessment of stress related issues & coping mechanisms among college students*. Minnesota State University, Mankato.
  39. Osamwonyi, E. F. (2016). In-Service Education of Teachers: Overview, Problems and the Way Forward. *Journal of Education and Practice*, 7(26), 83-87.
  40. Parveen, S. (2016). Stress management and its contributing factors among post-graduate students-A comparative analysis. *Arabian Journal of Business and Management Review (Oman Chapter)*, 6 (4), 27.
  41. Quraishi, U., Aziz, F., & Siddiquah, A. (2018). Stress and coping strategies of university teachers in Pakistan. *Pakistan Journal of Education*, 35(2).
  42. Samira S.B, Ali A.F, Alaa A, Sajida A, Saeed U.R, Nadia O.I. (2015) Sources of stress and coping strategies among undergraduate medical students enrolled in a problem-based learning curriculum. *Journal of Biomedical Education*. 2015;8: 1-9.
  43. Sampson-Akpan, P. E., John, M. E., Edet, O. B., & Ella, R. E. (2017). Stress and coping strategies among undergraduate nursing students in Calabar, Nigeria. *IOSR Journal of Nursing and Health Science*, 6(03), 61-70.
  44. Takaoğlu, Z. B., (2017) Challenges Faced by Pre-service Science Teachers during the Teaching and Learning Process in Turkey. *Journal of Education and Training Studies* 5 (2), 100-110.
  45. Thomas, L. (2020, May 8) *Cross-sectional Survey: definitions, uses and examples*. Retrieved 21/02/2022 from Articles by Lauren Thomas - page 2 (scribbr.com)
  46. T-TEL (2018) *Professional Development Programme. Four-Year Bachelor of Education Degree Supported Teaching in School (School Placement Handbook)*. Published by the Ministry of Education; Ghana.
  47. Väisänen, S., Pietarinen, J., Pyhältö, K., Toom, A., & Soini, T. (2017). Social support as a contributor to student teachers' experienced well-being. *Research Papers in Education*, 32(1), 41-55.
  48. Valkov, P., & Peeva, K. (2020). stress among university teachers: empirical research in Bulgaria. *Trakia Journal of Sciences*, 18(1), 257-266.
  49. Van Katwijk, L., Jansen, E., & Van Veen, K. (2021). Pre-service teacher research: a way to future-proof teachers? *European Journal of Teacher Education*, 1-21.
  50. Yikealo, D., & Tareke, W. (2018). Stress coping strategies among college students: A case in the college of education, Eritrea Institute of Technology. *Open Science Journal*, 3(3), 1–17.

51. Young, A. G., & Pearce, S. (2013). A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in quantitative methods for psychology*, 9(2), 79-94.