

# Original Research Article

## **Ethical Climate and Job Satisfaction via Mediating Role of Organisational Commitment (Case Study: Tutors in Ghana)**

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### ABSTRACT

**Aims:** Ethical climate is one of the fundamental attributes shaping intra-organisational relationships and employee attitudes, thereby also having substantial influence on organisational outcomes. Therefore, understanding the relationships among ethical climate, job satisfaction and organisational commitment is an important research area. The main purpose of the study was to examine ethical climate and job satisfaction via mediating role of organisational commitment among College of Education tutors in Ghana.

**Study design:** The descriptive cross-sectional survey design was employed in the study.

**Place and Duration of Study:** The study was carried out from 2020 to 2021, among College of Education tutors in Ghana.

**Methodology:** The quantitative approach with the positivist paradigm was adopted for the study. A total of 250 participants through a multistage sampling procedures (proportionate and simple random sampling) were used in the study. Ethical climate questionnaire, job satisfaction scale and organisational commitment questionnaire were adapted and used in the study. Validation of the instruments were carried out using Confirmatory factor analysis (CFA).

**Results:** The results revealed that ethical climate was a substantial predictor of job satisfaction, [ $b = 1.11$ ;  $SE = .009$ ;  $Boot95\%CI (.1.091, 1.128)$ ]. The result discovered that a surge in ethical climate would lead to 1.11 increase in job satisfaction. The results again, showed that the direct effect of organisational commitment on job satisfaction was statistically significant,  $B = 1.108$ ,  $Boot95\%CI [1.090, 1.127]$ . Further, with the introduction of organisational commitment, the indirect effect of ethical climate on job satisfaction was not statistically significant,  $B = .0011$ ,  $Boot95\%CI [-.0011, .0043]$ . This suggests that organisational commitment does not mediate the relationship between ethical climate and job satisfaction.

**Conclusion:** This study confirms the relationship between ethical climate and job satisfaction among tutors in the Colleges of Education. When the ethical climate of teachers increases the likelihood of teachers to be satisfied with their job.

*Keywords:* Ethical climate, Job satisfaction, Organisational Commitment and Tutors in Ghana

### 1. INTRODUCTION

Ethical climate is deemed important for a successful institution particularly the Colleges of Education. Positive ethical climate enables respectable working interactions between the principal's in the Colleges of Education and tutors, whereby tutors could experience efficient communication, innovation, team spirit, and

decentralized decisionmaking processes. Tutors interpret their work environments in different ways, and these interpretations play a critical role in determining how they behave and how they view the world [1]. Understanding tutors behaviour requires understanding the climate. We frequently have a limited knowledge of "why tutors do the things they do" without understanding the school environment and how tutors view that setting [2]. Institutions, for instance Colleges of Education are gradually giving attention to matters related to ethics. Ethical values may change from one institution to another institution. So there may be the need for the principals in the Colleges of Education to make definite ethical codes and support tutors for ethical behaviours to manage institutional outcomes [3]. Ethical climate makes an environment that enhances ethical values, clarifies role ambiguities, and provides a clear direction for ethical decision in ethical situations enabling tutors to enjoy their work [4]. If tutors perceive a satisfactory ethical climate they are also likely to have a higher level of job satisfaction [4].

A person's behaviour is shaped by a system of norms and standards known as ethics [5]. Climate is concerned with an individual's viewpoints and sentiments regarding their workplace [6]. By combining these two definitions, Victor and Cullen [7] described ethical climate as "generic and pervasive qualities of **organisations**, affecting a broad variety of decisions." Consequently, ethical climate offers tutors direction on what to do in ethical situations. "Agreement among members (tutors) of an institution regarding what institutional practice and procedures actually signify in terms of expected ethical behaviour" is referred to as ethical climate [8]. The ethical climate of an institution is directly correlated with both the positive behaviours and a variety of negative work behaviours such as tardiness, absenteeism, and lax performance [9-10]. Additionally, negative workplace behaviours are associated with decreased job satisfaction, decreased **organisational** commitment, decreased creativity, stagnant productivity, increased antisocial behaviour, and increased staff turnover [11]. If code of ethics is established and upheld in higher educational institutions particularly in the Colleges of Education, they may be able to address unethical behaviours [12]. Due to the dedication, emotional labor, and strong intrinsic values required in the teaching profession, for example, tutors' feelings and emotions about their work can influence how they perceive the ethical climate or how they are affected by it [13]. As a result, it would be paramount to concentrate on tutors if we attempt examining the ethical climate in schools.

One key component of an institution's well-being is job satisfaction. This is demonstrated by a tutor who finds his or her work rewarding and delightful and treats it as such, as opposed to a tutor who withholds his or her devotion out of a sense of dissatisfaction [14]. How people view their work and various facets of it determines their level of job satisfaction. This is the level to which people find certain characteristics of their work, such as "working for themselves," "pay," "promotion of chances," "control," and "cooperation," to their liking or disliking [15]. According to Luthans [16], job satisfaction is an enjoyable or pleasant emotional state brought on by an evaluation of one's work or professional experience. Thus, the tutor's assessment of how well their task is done, which is regarded vital, determines job contentment. The term "job satisfaction" describes the fulfillment, gratification, or contentment that comes from having a particular employment [17]. Lambeck, Smither, and Johnston [18], asserted that like self-realization, majority of

people appear to have a greater need. As a result, individuals who desperately need a job are content as long as it can provide for their necessities.

A tutor's relationship with an institution determines how they are committed to that institution is termed as **organisational** commitment [19]. **Organisational** commitment is the degree of emotional and practical attachment to one's current workplace [20]. Tutors that feel valued at work are more likely to be productive and perform better than undervalued tutors [21]. Having an **organisational** commitment also means that the person believes that institution's aims and objectives are legitimate and deserving of their best efforts. As a result, people who have a high level of **organisational** commitment are eager to work hard for the institution and support its objectives and core values [22]. A dedicated tutor should be able to operate more autonomously, make wise decisions for the institution even under challenging circumstances, and go beyond the call of duty. Additionally, it is believed that a devoted tutor would be more productive, take fewer sick leaves, and is less likely to leave the institution for another [23]. As a result, those who are devoted to the institution are more inclined to go extra mile to accomplish institutional goals, some of which may involve using creativity in the workplace [24]. Klein and Izzo [25] asserted that institutions and employees (tutors) experience commitment crisis. And that, there is a widening gap between employee (tutors) dedication and what employers (principals) expect from them in many institutions [26]. At the same time employers (principals) seem to depend more than ever on committed employees (tutors) since the cost for recruitment and training are higher than the efforts for retraining existing employees.

Several studies have **postulated** that **organisational** commitment is made up of three elements [27, 28, 29, 30]. These elements include normative, affective, and continuance commitment. The sense of duty to stay in an institution is the normative component, and because it entails a sense of responsibility to the institution, it can have a moral or ethical component. The **organisation's** level of likeability, which fosters an emotional bond and increased identification with the institution, makes up the affective component [29] while the perception of challenges that can arise from leaving an institution and the advantages or rewards from staying with the institution make up the continuance component [31]. The three elements of **organisational** commitment are independent of one another and are each influenced by various antecedent conditions. The three elements add up to a person's overall dedication to the organisation when taken into account [32].

Evidence signified that tutors would be more satisfied and stay in their teaching jobs if they had been more committed to the institutional values and goals [33]. Therefore, principals at the Colleges of Education must pay extra devotion in meeting the tutors' needs at work, so that they could have higher morale, job satisfaction, and organisational commitment. One of the steps to be taken is provision of an appropriate moral environment within the institution. An ethical climate shows tutors' understanding of their institution, affects their behaviour and perception, and provides the ground for decision making and behaviours [34]. In an ethical climate with humanitarian values, choice, and sense of belonging, tutors are more satisfied with and committed to the organisation [35]. As a result, tutors' commitments include student's tutor relationship, reduced leaving of the profession,

and reduced absenteeism [36]. Hence the need to examine whether organisational commitment could mediate between ethical climate and job satisfaction among College of Education Tutors in Ghana.

### 1.1 Statement of the Problem

An institution's ethical climate orders its ethical standards and the behaviours anticipated, and has been shown to impact the ethicalness of its members [37]. It has long been suggested that ethics should be integrated into the institutions, thereby creating an ethical climate within the institution [38]. Today's institutions are likely to contain climates that run anywhere from very ethical to very unethical. A national survey of 4000 business employees found that 25% believed that their companies ignore ethical conduct to meet business objectives, and nearly 17% stated that their company overtly encourages misconduct to meet business objectives [39]. While such evidence suggests that unethical climates exist, it conversely implies that not all institutions' climates are perceived as unethical. Institutions (Colleges of Education) that exhibit strong ethical values may benefit from having more committed tutors in the institution [40].

Research studies indicate that there are positive relationships between ethical climate and job satisfaction [41]. These researchers further highlighted an interaction between ethical climate, and job satisfaction. This suggests that there is a positive association between ethical climate, and job satisfaction. However, majority of these studies on ethical climate and job satisfaction have been undertaken at the healthcare organisations and business administration [42, 43]. For instance, research indicates that ethical climate is connected to a number of aspects of tutor's job satisfaction namely prospects for promotion, interactions with coworkers, supervisors, and managers [44, 45, 46, 47]. These conclusions are supported by a meta-analysis by Martin and Cullen [48], who showed a high correlation between ethical climate and job satisfaction among healthcare professionals. The directionality of the relationship between ethical climate and job satisfaction would depend on the kind of ethical environment that tutors perceive, given the range of ethical climates that can develop. According to Martin and Cullen's [48], instrumental climates had the opposite effect of caring climates in terms of enhanced pleasure, while law and code climates showed a strong positive link with greater satisfaction. Despite the fact that job satisfaction and ethical climate are associated, little study has been done on these topics in the educational institutions (schools), particularly among College of Education tutors in Ghana [49]. Hence, the need for this study.

Again, majority of the research conducted on ethical climate and job satisfaction were done in the Western world with a marginal proportion conducted in Africa particularly West Africa and Ghana to be specific [50]. Also, despite the numerous cultural commonalities among countries, there are also a wide range of cultural distinctions that exist between human societies [50]. This has however made it pertinent to carry out such a study in Ghana. A significant number of scholars have also noted that organisational commitment is connected to ethical climate and job satisfaction [51, 52]. Moore [42], for instance, looked at the connection between organisational commitment, ethical climate, and job satisfaction

of full-time faculty members and concluded that there is a relationship between the three constructs. Zehir, Erdogan, and Basar [53] also **took into account** ethical climate as an antecedent variable for both job satisfaction and **organisational** commitment. **These** results have come to our attention that there is the possibility that **organisational** commitment may serve as a mediator in the relationship between ethical climate and job satisfaction. Therefore, this study, attempts to fill the gap by examining ethical climate and job satisfaction among College of Education tutors in Ghana via mediating role of **organisational** commitment. The main objectives of the study were to (1) examine the relationship between ethical climate and job satisfaction among College of Education tutors in Ghana, (2) assess the mediating role of organisational commitment in the relationship between ethical climate and job satisfaction among College of Education tutors in Ghana.

## 2. THEORETICAL FRAMEWORK

The idea of ethical climate (EC) theory in **organisations** had its roots in moral development research conducted by Kohlberg in 1969. According to Kohlberg [54], morality is made up of three distinct moral theories: egoism, utilitarianism, and deontology. The term "egoism" refers to actions motivated by personal gain. The maximisation of the greater benefit for the greatest number of parties can be regarded as utilitarian behaviour. Deontology refers to actions that adhere to rules, codes, laws, and processes designed to benefit others. Victor and Cullen [7] highlighted three different levels of analysis; the individual level of analysis, the local level of analysis (the **organisation**), and the global level of analysis, as being critical to the understanding of ethical climate (community or society which the organisation functions within). The theoretical model of ethical climate developed by Victor and Cullen [7] was developed by evaluating egoism, altruism, and principle against each of these levels of analysis. Five distinct conceptualizations of ethical climate, including caring, instrumental, independence, rules, and law and code, were identified by Victor and Cullen's empirical research. These conceptualisations represent each aspect of ethical decision-making at each level of the **organisation**. A caring environment is one where employees feel that actions made by their companies are motivated by care for the welfare of others. This ethical concern extends beyond just the organisation's own employees to encompass people and entities outside the company as well (e.g., local community, society). Companies with caring cultures are seen to adhere to these values and show them through their own rules, practices, and personnel [55].

**Organisations** with rules and expectations that promote moral decision-making have instrumental ethical climates. These standards and expectations of moral conduct are typically interpreted as promoting one's own or the organisation's interests. On the other hand, the distinctive moral ideals of every person give rise to independent environments. In other words, employees of an organisation will primarily base their choices on their own moral principles. People are more likely to make decisions in these kinds of ethical environments based on serious examination of their personal values and are less likely to be swayed or influenced by outside forces [56]. Law and code ethical climates **are** on a certain set of external standards that offer recommendations for how members of an organisation should behave. These climates frequently affect how an employee makes ethical decisions

because they place a strong focus on religion (e.g., laws drawn from the bible or the Koran) or on morality [9]. Organisations with rules ethical climates generally have a strong set of internal codes specific to their organisation (e.g., code of conduct) [11]. These rules, govern how an organisation's policies and procedures are developed [57]. Ethical climate theory underpins the study because when tutors have good ethical climate at work, the higher their job satisfaction.

## 2.1 Related Studies

Ethical climate influences job satisfaction [58, 59] and organisational commitment [60, 61]. For instance, Daneshfard, Rahimi, and Damirchi [62] examine the role of ethical climate on job satisfaction in Iran's small and medium enterprises. Using 128 participants, T-test and Pearson correlation were performed to compare means between variables. Findings showed that there is a relationship between ethical climate and job satisfaction in Iran's small and medium enterprises.

Okpara [63] gathered data from 320 information communication technology managers in various businesses located in Nigeria. Using the ethical climate and job satisfaction questionnaire, the study reported that ethical climate significantly influenced managers job satisfaction with promotions, and supervision. When the total construct was joined together ethical climate significantly influenced job satisfaction.

Borhani, Jalali, Abbaszadeh, and Haghdoost [64] examined nurses' perception of ethical climate and organisational commitment in teaching hospitals in the Southeastern Region of Iran. A descriptive analytical design was used in the study. The sample consisted of 275 nurses working in four teaching hospitals in the Southeastern Region of Iran. The instruments used in the study included a demographic questionnaire, ethical climate questionnaire, and organisational commitment questionnaire. Data analysis was carried out using Pearson's correlation, t-test, and descriptive statistics. The result of the research indicated a positive correlation among sub-dimensions of job satisfaction (professionalism, caring, rules, independence climate) and organisational commitment. In support of this, Ozdoba, Dziurka, Pilewska-Kozak, and Dobrowolska [65] examine hospital ethical climate and job satisfaction among nurses. A total of 235 nurses participated in the study. The results revealed a significant relationship between ethical climate and job satisfaction among nurse workers.

Moore [42] examined ethical climate, organisational commitment, and job satisfaction of full-time faculty members. Descriptive cross-sectional survey design was employed in the study. Five hundred and ninety-four (594) participated in the study. The data analysis found a significant difference in self-reported levels of organisational commitment and job satisfaction for full-time faculty members with regards to the types of perceived ethical climate (i.e. egoism, benevolence, and principled). Further analysis showed that gender differences played a significant role in the self-reported level of organisational commitment. Females reported higher levels of organisational commitment than their male counterparts.

Menes and Haguisan [66] examined the relationship between ethical climate, job satisfaction, and hotel employees' organisational commitment. Using stratified random sampling technique, 152 employees from two hotels with the same owner and management were identified as respondents. An adapted questionnaire was used to collect the data. Mean, standard deviation, and Pearson were used to analyse the data. The results revealed that ethical climate showed a significant relationship with job satisfaction and organisational commitment.

Unal [67] looked at the mediating role of facets of job satisfaction on the relationship between ethical climate and the dimensions of organisational commitment. The sample data was derived from 199 participants. The results indicated that ethical climate was positively associated with some facets of job satisfaction and affective and continuance dimensions of organisational commitment. The results also showed that some facets of job satisfaction mediate the relationship between ethical climate and organisational commitment.

Anaza, Rutherford, Rollins, and Nickell [41] studied ethical climate and job satisfaction among organisational buyers. Data were collected from the industrial buyers using online panel. The INDSALES scale was used to measure the job satisfaction. Partial least squares, a components-based structural equation modeling approach, was employed in the analysis. The key findings were that buyer's organisational policy mediates the relationship between buyers' perception of ethical climate and buyers' satisfaction with pay and promotion as well as satisfaction with coworkers and supervisors. The findings also showed that work satisfaction can be achieved at different levels base on particular components associated with the work environment.

Most of these previous studies were conducted among employees in organisations such as health facilities, companies, small and medium enterprises among others living out the school environment specifically, tutors in the Colleges of Education. Hence this study intended to examine ethical climate and job satisfaction as well as the mediating role of organisational commitment among College of Education tutors in Ghana.

### **3. MATERIALS AND METHODS**

Descriptive cross-sectional survey design of the quantitative research approach was used to examine the relationship between ethical climate and job satisfaction response among College of Education tutors in Ghana.

The study's target population consisted of all tutors in the public Colleges of Education in Ghana. In Ghana, there are 46 public Colleges of Education. The public Colleges of Education are made up of five zones. These are the Central/Western Zone (7 CoE), the Volta Zone (7 CoE), the Eastern/Greater Accra Zone (9 CoE), the Ashanti/BrongAhafo Zone (13 CoE), and the Northern Zone (10 CoE). The accessible population consisted of tutors from fifteen selected Colleges out of the total 46 Colleges of Education in Ghana. A multistage sampling procedures (proportionate and simple random sampling) were used to select 319 tutors from the selected Colleges base on Krejcieand Morgan's [68] table of sample

size determination. The response rate that was retrieved from the field was 250 responses.

### **3.1 Validation and Instrumentation**

The scale was validated. Confirmatory Factor Analysis (CFA) and a covariance-based Structural Equation Model were used to validate Ethical Climate and Organisational Commitment Questionnaire using Jeffery Amazing Statistic Program (JASP) software version 14.1. Pallant[69] has it that non-significance items greater than .05 or loadings less .30 should be dropped and significance items less than .05 or loadings greater than .30 be maintained so, the researchers did same. Additionally, convergent validity was determined using an AVE of .50 or higher [70]. In addition, if the measure of correlation between the sub-scales (latent exogenous constructs) are less than .85 or .90, then discriminant validity has been achieved [71, 72, 73]. The validity of the CFA is described below.

### **3.2 Ethical Climate Questionnaire**

The study used an adapted Ethical Climate Questionnaire (ECQ) by Victor and Cullen's [7]. The questionnaire consisted of 26-items which was made up of five sub-dimensions namely caring, law and code, rules, instrumental and independence. For all ethical climate measures, participants were asked to evaluate the climate of their institution by stating the degree of true or false, along a six-point Likert- scale (0 = completely false, mostly false=1, Somewhat false = 2, Somewhat true = 3, Mostly true = 4 and completely true =5).

As shown in Figure 1, factor loadings for items A3, A6, A7, and A17 were deleted because their p-value indicated non-significance ( $>.05$ ), or were below the recommended value of .30 [69], hence they were deleted. Two dimensions of the Average Variance Extraction (AVE) that is Factor-2 (Law/Code) and Factor-3 (Rules) were greater than .50. However, Factor-1 (Caring), Factor-4 (Instrumental) and Factor-5 (Independent) indicated a lesser value of .50. It can be concluded that dimensions had partially convergent validity. Although the dimensions had partial convergent validity the Cronbach Alpha = .68, Composite Reliability = .76 and Omega  $\omega$  = .72 respectively had higher reliability. The initial model of the 26-items is shown in Figure 1.

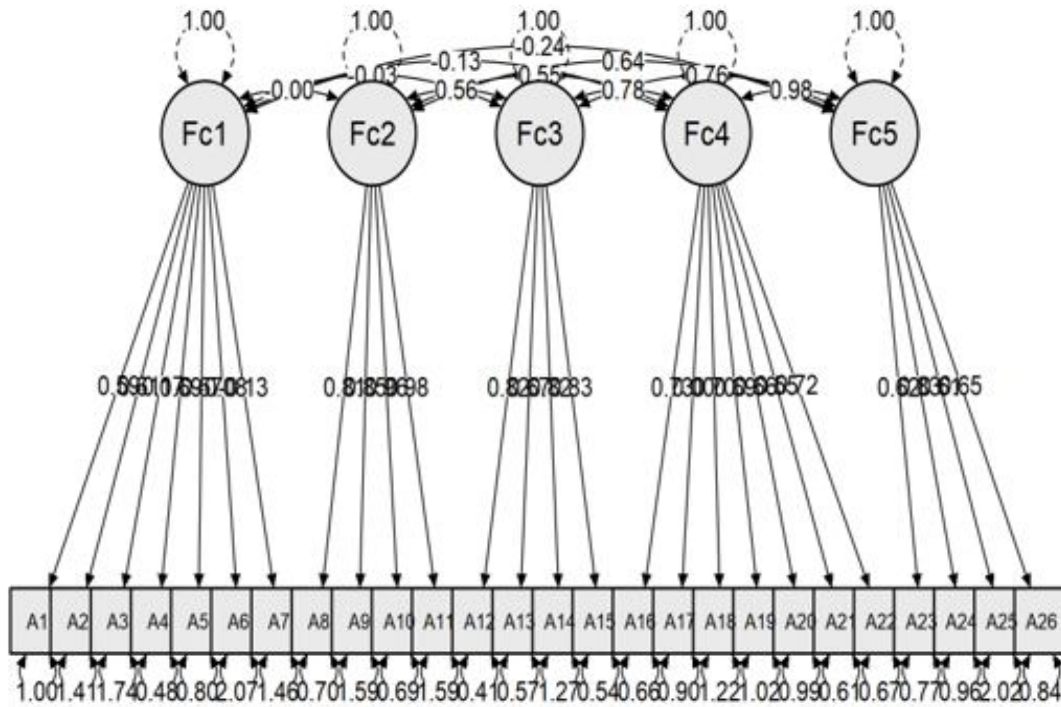


Figure 1: Initial Model of 26-Items of ECQ

### 3.3 Inter-dimension Correlation from the CFA

In assessing the inter-dimension correlation or the discriminant validity of the ECQ, if the measure of correlation between or among latent exogenous constructs (sub-scale) are less than .85 or .90, then discriminant validity has been achieved [71, 72, 73]. Based on the results 95% of the correlation ratios met the criterion for the original 26-item instrument. That is, whereas 9 coefficients of the correlation ratios were less than 0.90, the other 1 was greater than 0.90 [71, 72, 73]. This condition however, explains that the problem of multicollinearity does not exist between or among the construct. Consequently, all the observed variables of ECQ questionnaire were grouped under their respective dimensions. This result suggests that the discriminant validity of the scale is sufficient.

### 3.4 Model Fit Indices for the Measurement Model

The model fit indices were used to see if the proposed model fit the data set. By calculating NFI, TLI, and CFI, among other variables, the new model (ECQ-22 items) was compared to the initial model (ECQ-26 items). The initial model with CFI = .739, NFI = .593, IFI = .746, TLI = .712 didn't meet the criteria set by (>0.90; [74]). On the other hand, the RMSEA = .081 also showed a poor fit (<0.08 [75]).

The model fit indices appeared to be better in the revised model (ECQ-22 items) than the original model (ECQ-26 items). The AIC index for the ECQ-26 item model was 11741.912, whereas the ECQ-22 item model had an AIC value of 9786.788, indicating that the second model (ECQ-22 item) is closer to reality and

has appropriate fit [76, 77]. The model fit indices for the new model (ECQ-22 item) did not meet the standards specified by the selected researchers, despite the fact that the ECQ-22 item model fit better than the ECQ-26 item model. According to this study, future researchers who want to replicate or re-examine ECQ in the Ghanaian setting should use the ECQ-22 items rather than the ECQ-26 items due to cultural differences [78]. The final model with 22-items is shown in Figure 2.

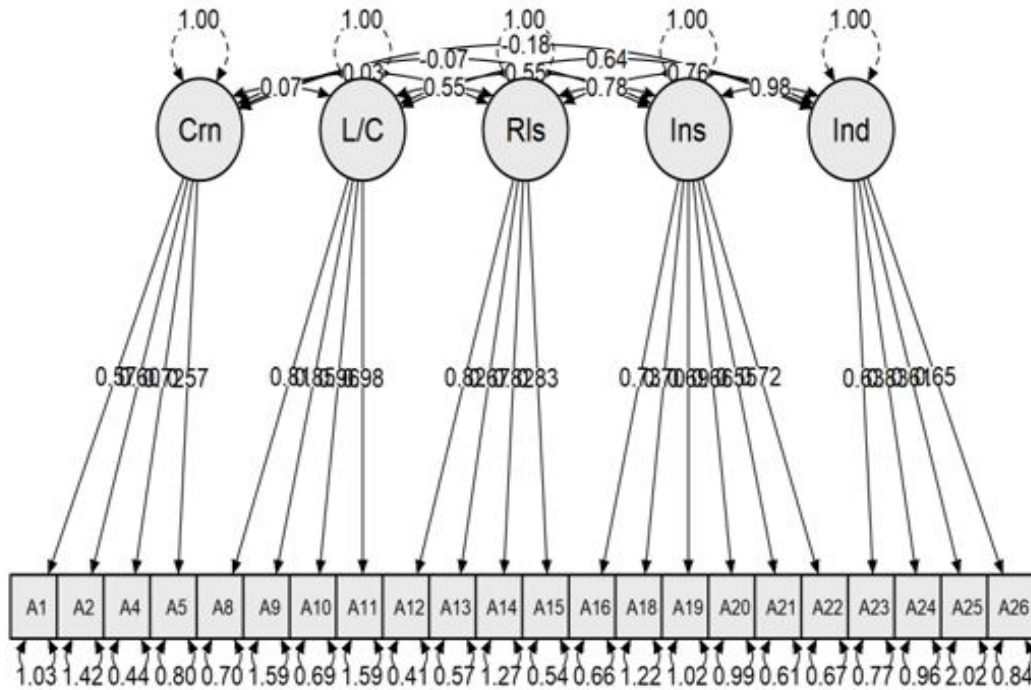


Figure 2: Final Measurement Model of the 22-items of ECQ

### 3.5 Organisational Commitment (OC) Questionnaire

To measure organisational commitment, the researchers used Allen & Meyer's [79] three-model measure of commitment. This scale uses 24 items to measure the Affective, Continuance, and Normative facets of organisational commitment. Participants responded to each question using a 7-point Likert-type scale indicating their agreement with each statement (Strongly disagree – 1, Disagree – 2, Somewhat disagree – 3, Neither agree nor disagree – 4, Somewhat agree – 5, Agree – 6, Strongly agree – 7). We employed Confirmatory Factor Analysis (CFA) to determine the divergent and convergent validity. The CFA is described below.

As shown in Figure 3, items B2, B5, B6, B11, B16, and B23 yielded a non-significance results because their p-value were greater than (>.05), hence they were deleted. All the respective dimensions were less than the Average Variance Extraction (AVE) of .50. It can be concluded that convergent validity has been poorly established. Although, convergent validity was poorly established, the Composite reliability, Cronbach Alpha and Omega  $\omega$  showed a high reliability of .75, .77, .79 respectively. The initial model of the 24-items is shown in Figure 3.

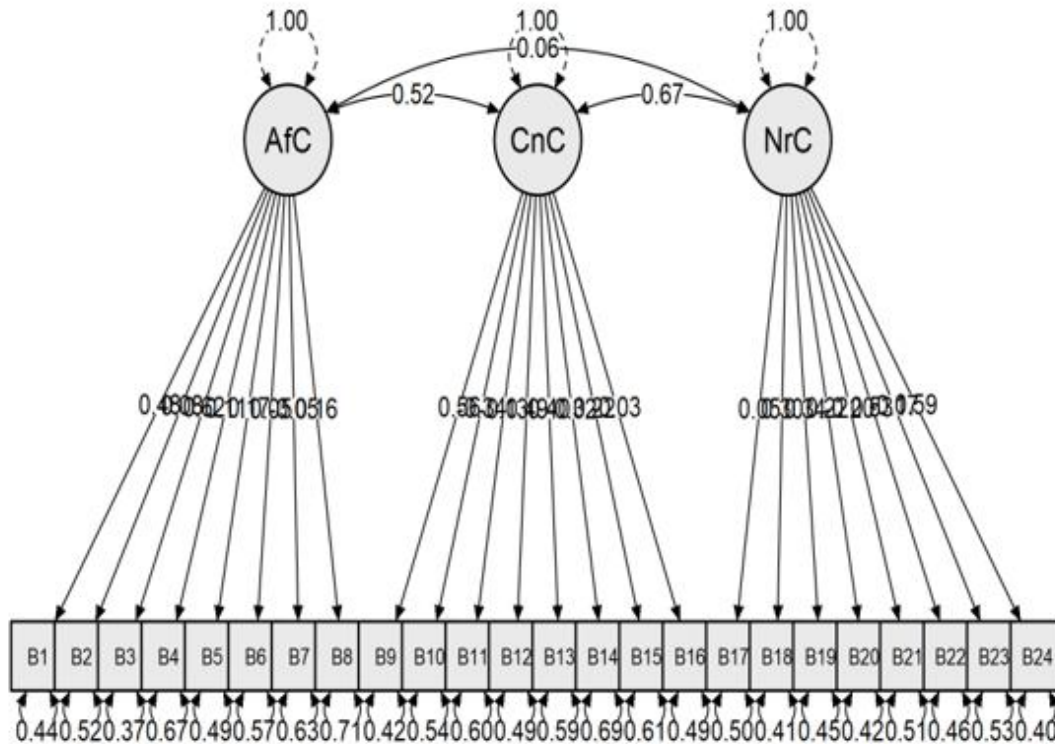


Figure 3: Initial Measurement Model with 24 items of OC

### 3.6 Inter-dimension Correlation from the CFA

In assessing inter-dimension correlation or the discriminant validity of the organisational commitment, if the measure of correlation between or among latent exogenous constructs (sub-scale) are less than .85 or .90, then discriminant validity has been achieved [71, 72, 73]. Based on the results all the correlation ratios .56, .59, .66 respectively were less than the criterion of 0.90 for the original 24-item instrument. This result suggests that the discriminant validity of the scale is sufficient.

### 3.7 Model Fit Indices for the Measurement Model

The model fit indices were used to see if the proposed model fit the data set. By calculating NFI, TLI, and CFI, among other variables, the new model (OC-18 items) was compared to the initial model (OC-24 items). The new model with chi-square = 1016.299, CFI = .35, NFI = .30, IFI = .37, TLI = .28 didn't meet the criteria set by (>0.90; [74]). On the other hand, the RMSEA = .11 also showed a good fit (<0.08; [75]).

The new model with (OC-18 items) appeared better than the original model (OC-24 items). The AIC index for the OC-24 item model was 13847.550, whereas the OC-18 item model had an AIC value of 10495.315, indicating that the second model (OC-18 item) is closer to reality and has appropriate fit [76, 77]. Although the

new model (OC-18 item) appeared better it didn't meet the standards specified by the selected researchers [74, 75]. The final model with 18-items is shown in Figure 4.

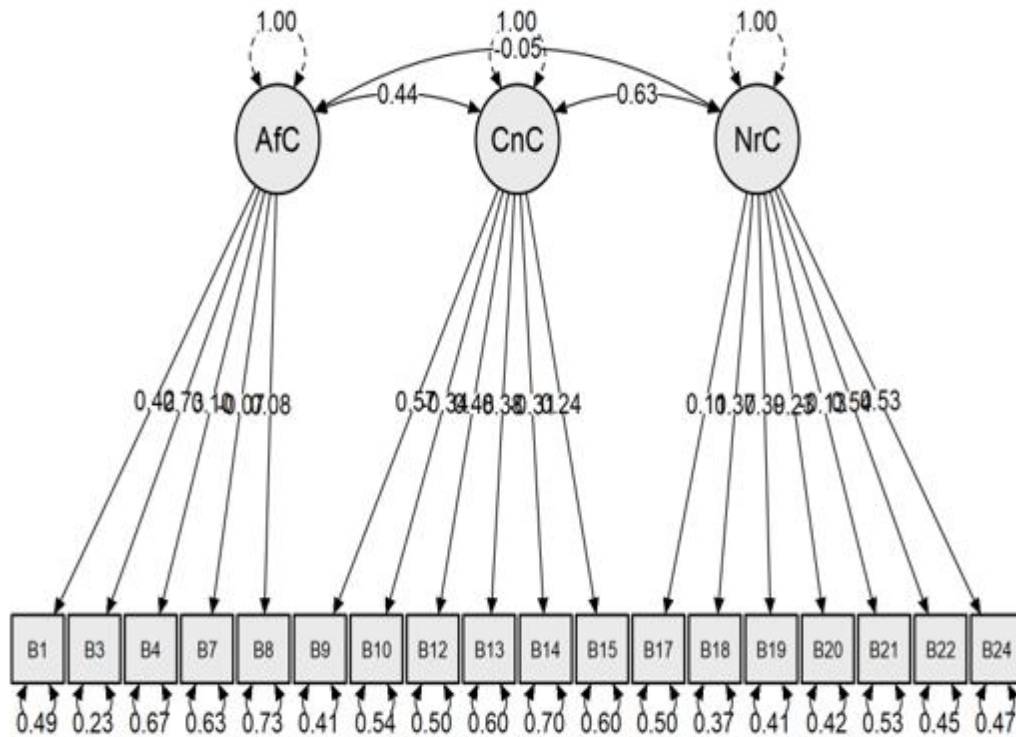


Figure 4: Final Measurement Model with 18 items Scale of OC

### 3.8 Job Satisfaction Scale

Spector's [80] Job Satisfaction Scale was used. The Job Satisfaction Survey (JSS) consists of 36 items and nine subscales to gauge employee views toward their position and its various facets. Each item was ranked on a 6-point Likert scale ranging from "strongly disagree" to "strongly agree". The 36 items were written in both directions, so about half of them must be reverse scored. The nine subscales are Pay, Promotion, Supervision, Fringe Benefits (Monetary and nonmonetary fringe benefits), Contingent Rewards (performance-based rewards), Operating Procedures (Operating policies and required rules), Coworkers, Nature of Work, and Communication. Although the JSS was originally developed for use in human service organisations, it is applicable in any institutions [81]. According to Spector's [80], he validated the instrument using Confirmatory Factor Analysis (CF). The CFA assessed the fit of the nine-factor structure and the model fitted the data well as defined from the RMSEA, CFI, NFI, TLI and GFI values that were equal to 0.055, 0.951 and 0.946, respectively. None of the item cross loadings exceeded the item loadings on the intended latent construct. Factor loadings were high and ranged from 0.61 to 0.90 indicating a strong association between the latent factors and their

respective items. This validation by Spector [80] supported our decision to use the scale.

### **3.9 Statistical Analyses**

The data analysis was structured in different phases based on the objectives of the study. The first objective, which sought to examine the relationship between ethical climate and job satisfaction among College of Education tutors in Ghana, was addressed by performing a multivariate multiple regression and SEM analysis. For objectives two (i.e., assess the mediating role of organisational commitment in the relationship between ethical climate and job satisfaction among College of Education tutors in Ghana) mediation analysis using PROCESS software by Hayes was performed. For all the inferential analyses, the bootstrapping approach with 5000 boot-strap samples was used for the parameter estimation.

## **4. RESULTS**

### **4.1 Relationship between ethical climate and job satisfaction among College of Education tutors in Ghana**

The aim of this hypothesis was to test whether ethical climate could predict job satisfaction of tutors. The results in this section are in two folds. The first part looks at the sub-dimensions of ethical climate as predictors of sub-dimensions of job satisfaction. The second part looks at the prediction of total construct of ethical climate on the total construct of job satisfaction. In multivariate multiple regression, ethical climate as the predictor was multidimensional (caring, law/code, rule, instrument and independent) and job satisfaction as the criterion was also multidimensional (pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworker, nature of work, and communication). The results are presented in Table 1.

**Table 1:** Multivariate Multiple Regression of sub-dimensions of Ethical Climate and Job Satisfaction

Dependent	Parameter	B	Std. Error	t	Sig.	95% Confidence Interval		Partial Eta Squared
						Lower Bound	Upper Bound	
Pay	Intercept	-.524	.330	-1.587	.114	-1.175	.126	.010
	Caring	.436	.025	17.269	.000	.386	.485	.550
	Law/Code	-.076	.037	-2.072	.039	-.149	-.004	.017
	Rule	-.045	.037	-1.220	.224	-.117	.028	.006
	Instrument	.059	.023	2.538	.012	.013	.105	.026
	Independent	.025	.033	.779	.437	-.039	.090	.002
Promotion	Intercept	.788	.325	2.424	.016	.148	1.428	.024
	Caring	.406	.025	16.344	.000	.357	.455	.523
	Law/Code	-.017	.036	-.476	.634	-.089	.054	.001
	Rule	.060	.036	1.650	.100	-.012	.131	.011
	Instrument	-.007	.023	-.318	.751	-.052	.038	.000
	Independent	-.021	.032	-.661	.510	-.085	.042	.002
Supervision	Intercept	-.299	.351	-.852	.395	-.991	.392	.003
	Caring	.175	.027	6.535	.000	.123	.228	.149
	Law/Code	.812	.039	20.714	.000	.735	.890	.637
	Rule	-.016	.039	-.421	.674	-.094	.061	.001
	Instrument	-.053	.025	-2.149	.033	-.102	-.004	.019
	Independent	.014	.035	.403	.687	-.054	.083	.001
Fringe Benefit	Intercept	.220	.333	.662	.508	-.435	.876	.002
	Caring	.001	.025	.059	.953	-.049	.052	.000
	Law/Code	.261	.037	7.024	.000	.188	.334	.168
	Rule	.785	.037	21.156	.000	.712	.858	.647
	Instrument	-.036	.023	-1.543	.124	-.082	.010	.010
	Independent	-.020	.033	-.600	.549	-.085	.045	.001
Contingent R.	Intercept	-.167	.430	-.389	.698	-1.015	.680	.001
	Caring	-.029	.033	-.895	.372	-.094	.035	.003
	Law/Code	.027	.048	.564	.573	-.068	.122	.001
	Rule	.192	.048	4.003	.000	.098	.286	.062
	Instrument	.578	.030	19.031	.000	.518	.638	.597
	Independent	-.151	.043	-3.541	.000	-.235	-.067	.049
Operational P.C.	Intercept	-.183	.337	-.544	.587	-.846	.480	.001
	Caring	.027	.026	1.069	.286	-.023	.078	.005

	Law/Code	.009	.038	.231	.817	-.065	.083	.000
	Rule	-.004	.038	-.106	.916	-.078	.070	.000
	Instrument	.380	.024	15.993	.000	.333	.427	.512
	Independent	.043	.033	1.279	.202	-.023	.108	.007
Coworkers	Intercept	.386	.318	1.213	.226	-.241	1.013	.006
	Caring	-.044	.024	-1.827	.069	-.092	.003	.013
	Law/Code	.053	.036	1.495	.136	-.017	.123	.009
	Rule	.015	.036	.422	.673	-.055	.085	.001
	Instrument	.095	.022	4.235	.000	.051	.139	.068
	Independent	.562	.032	17.807	.000	.500	.624	.565
Nature of Work	Intercept	.450	.356	1.266	.207	-.250	1.151	.007
	Caring	.070	.027	2.570	.011	.016	.123	.026
	Law/Code	-.136	.040	-3.430	.001	-.215	-.058	.046
	Rule	.042	.040	1.068	.287	-.036	.120	.005
	Instrument	.006	.025	.240	.811	-.043	.055	.000
	Independent	.663	.035	18.816	.000	.594	.732	.592
Communication	Intercept	2.092	.703	2.976	.003	.707	3.476	.035
	Caring	.087	.054	1.614	.108	-.019	.193	.011
	Law/Code	.077	.078	.984	.326	-.077	.232	.004
	Rule	.004	.078	.048	.962	-.151	.158	.000
	Instrument	.059	.050	1.193	.234	-.039	.157	.006
	Independent	.214	.070	3.079	.002	.077	.351	.037

**NOTE:** <sup>a</sup>R-squared = .823 (Adjusted R-squared = .819). <sup>b</sup>R-squared = .816 (Adjusted R-squared = .813). <sup>c</sup>R-squared = .893 (Adjusted R-squared = .891). <sup>d</sup>R-squared = .897 (Adjusted R-squared = .895). <sup>e</sup>R-squared = .826 (Adjusted R-squared = .822). <sup>f</sup>R-squared = .794 (Adjusted R-squared=.790). <sup>g</sup>R-squared=.804 (Adjusted R-squared=.800). <sup>h</sup>R-squared=.779 (Adjusted R-squared=.775). <sup>i</sup>R-squared = .296 (Adjusted R-squared = .282).

Table 1 provides results of the test of multivariate multiple regression, where caring, law/code, rule, instrument and independent played the role of predictors to the criteria pay, promotion, supervision, fringe benefits, contingent rewards, operating conditions, coworker, nature of work, and communication. Using Wilk's lambda to test for the omnibus hypothesis that some of the beta values across the dependent variables were significant while others were not statistically significant,  $F(9, 236) = 2.967$ , Wilk's lambda = .898,  $p = .11$ . With Pay as the criterion,  $R^2 = .823$ ,  $p = .01$ . This shows that 8.23% of the variance in pay is explained by sub-dimensions of ethical climate (caring, law/code, rule, instrument and independent). With Promotion as the criterion,  $R^2 = .816$ ,  $p = .39$ . This shows that 8.16% of the variance in promotion is explained by sub-dimensions of ethical climate. With regards to supervision as the criterion,  $R^2 = .893$ ,  $p = .50$ . This revealed that 8.93% of sub-dimensions of ethical climate explained its variance.

Taking fringe benefits as the outcome variable,  $R^2 = .897$ ,  $p = .69$ , revealed that 8.97% of the variance in fringe benefits is explained by sub-dimensions of ethical climate. Further, with contingent reward as the outcome variable,  $R^2 = .826$ ,  $p = .58$ , revealed that 8.26% of the variance in contingent reward is explained by sub-dimensions of ethical climate. Again, with operating condition as the outcome variable,  $R^2 = .794$ ,  $p = .22$ , revealed that 7.94% of the variance in operating condition is explained by sub-dimensions of ethical climate. Moreover, with regards to coworkers as the outcome variable,  $R^2 = .808$ ,  $p = .20$ , showed that 8.8% of the variance in coworkers is explained by sub-dimensions of ethical climate. Similarly, with regards to nature of work as the criterion,  $R^2 = .779$ ,  $p = .00$ , showed that 7.79% of the variance in nature of work is explained by sub-dimensions of ethical climate. With regards to communication as the criterion,  $R^2 = .296$ ,  $p = .00$ , revealed that 2.96% of sub-dimensions of ethical climate explained its variance.

The study further revealed the individual dimensional predictors. Using Pay as a criterion, caring [ $b = .436$ ;  $t = 17.269$ ;  $p = .00$ ; Boot95%CI (.386, .485)], law/code [ $b = -.076$ ;  $t = -2.072$ ;  $p = .03$ ; Boot95%CI (-.149, -.004)], and instrument [ $b = .059$ ;  $t = 2.538$ ;  $p = .01$ ; Boot95%CI (.013, .105)], were predictors of pay sub-dimension of job satisfaction. However, rule [ $b = -.045$ ;  $t = -1.220$ ;  $p = .22$ ; Boot95%CI (-.117, .028)], and independent [ $b = .025$ ;  $t = .779$ ;  $p = .43$ ; Boot95%CI (-.039, .090)], were not predictors of pay. The results imply that teachers with ethical climate such as caring, law/code, and instrument are likely to be highly paid in their work.

Again, using promotion as a criterion, caring [ $b = .406$ ;  $t = 16.344$ ;  $p = .00$ ; Boot95%CI (.357, .455)], was a predictor of promotion. However, law/code [ $b = -.017$ ;  $t = -.476$ ;  $p = .63$ ; Boot95%CI (-.089, .054)], rule [ $b = .060$ ;  $t = 1.650$ ;  $p = .10$ ; Boot95%CI (-.012, .131)], instrument [ $b = -.007$ ;  $t = -.318$ ;  $p = .75$ ; Boot95%CI (-.052, .038)], and independent [ $b = -.021$ ;  $t = -.661$ ;  $p = .51$ ; Boot95%CI (-.085, .042)], were not predictors of promotion. The results imply that teachers with law/code, rule, instrument and independent are not likely to be promoted in their work.

Further analysis, showed that supervision as an outcome variable, caring [ $b = .175$ ;  $t = 6.535$ ;  $p = .00$ ; Boot95%CI (.123, .228)], law/code [ $b = .812$ ;  $t = 20.714$ ;  $p = .00$ ; Boot95%CI (.735, .890)], and instrument [ $b = -.053$ ;  $t = -2.149$ ;  $p = .03$ ; Boot95%CI (-.102, -.004)], were predictors of supervision. However, rule [ $b = -.016$ ;  $t = -.421$ ;  $p = .67$ ; Boot95%CI (-.094, .061)], and independent [ $b = .014$ ;  $t = .403$ ;  $p = .68$ ; Boot95%CI (-.054, .083)], were not significant predictors of supervision. The results imply that teachers with rule and independent are not likely to be supervised. However, teachers with caring, law/code and instrument are likely to be supervised in their work.

With regards to fringe benefits as a criterion, caring [ $b = .001$ ;  $t = .059$ ;  $p = .95$ ; Boot95%CI (-.049, .052)], instrument [ $b = -.036$ ;  $t = -1.543$ ;  $p = .12$ ; Boot95%CI (-.082, .010)], and independent [ $b = -.020$ ;  $t = -.600$ ;  $p = .54$ ; Boot95%CI (-.085, .045)]. However, law/code [ $b = .261$ ;  $t = 7.024$ ;  $p = .00$ ; Boot95%CI (.188, .334)], and rule [ $b = .785$ ;  $t = 21.156$ ;  $p = .00$ ; Boot95%CI (.712, .858)] were found as predictors of fringe benefits. The implication of the result is that teachers with law/code and rule are likely to have fringe benefits but teachers with caring, instrument and independent are not likely to have fringe benefits.

The study revealed that contingent rewards as a criterion, caring [ $b = -.029$ ;  $t = -.895$ ;  $p = .37$ ; Boot95%CI (-.094, .035)], and law/code [ $b = .027$ ;  $t = .564$ ;  $p = .57$ ; Boot95%CI (-.06, .122)], were not predictors of contingent rewards. However, rule [ $b = .192$ ;  $t = 4.003$ ;  $p = .00$ ; Boot95%CI (.098, .286)],

instrument [b = .578; t = 19.031; p = .00, Boot95%CI (.518, .638)], independent [b = -.151; t = -3.541; p = .00, Boot95%CI (-.235, -.067)], were predictors of contingent rewards. The results imply that teachers with rule, instrument and independent are likely to have contingent rewards in their work.

Taking operating condition as a criterion, caring [b = .027; t = 1.069; p = .28; Boot95%CI (-.023, .078)], law/code [b = .009; t = .231; p = .81; Boot95%CI (-.065, .083)], rule [b = -.004; t = -.106; p = .91, Boot95%CI (-.078, .070)], and independent [b = .043; t = 1.279; p = .20, Boot95%CI (-.023, .108)], were not predictors of operating condition. However, instrument [b = .380; t = 15.993; p = .00, Boot95%CI (.333, .427)], was a predictor of operating condition. The results imply that teachers with instrument are likely to have operating condition in their work.

The results showed that coworkers as an outcome variable, caring [b = -.044; t = -1.827; p = .06; Boot95%CI (-.092, .003)], law/code [b = .053; t = 1.495; p = .13; Boot95%CI (-.017, .123)], and rule [b = .015; t = .422; p = .67, Boot95%CI (-.055, .085)]. However, instrument [b = .095; t = 4.235; p = .00, Boot95%CI (.051, .139)], and independent [b = .562; t = 17.807; p = .00, Boot95%CI (.500, .624)], were not predictors of coworkers. The results imply that teachers with instrument and independent are likely to have coworkers in their work.

With regards to nature of work as a criterion, caring [b = .070; t = 2.570; p = .01; Boot95%CI (.016, .123)], law/code [b = -.136; t = -3.430; p = .00; Boot95%CI (-.215, -.058)], and independent [b = .663; t = 18.816; p = .00, Boot95%CI (.594, .732)] were predictors of nature of work. However, rule [b = .042; t = 1.068; p = .28, Boot95%CI (-.036, .120)], and instrument [b = .006; t = .240; p = .81, Boot95%CI (-.043, .055)], were predictors of nature of work.

Finally, the study revealed that communication as a criterion, caring [b = .087; t = 1.614; p = .10; Boot95%CI (-.019, .193)], law/code [b = .077; t = .984; p = .326 Boot95%CI (-.077, .232)], rule [b = .004; t = .048; p = .96, Boot95%CI (-.151, .158)], and instrument [b = .059; t = 1.193; p = .23, Boot95%CI (-.039, .157)], were not predictors of communication. However, [b = .214; t = 3.079; p = .00, Boot95%CI (.077, .351)]. The results imply that teachers with independent are likely to have communication in their work while those with caring, law/code, rule and instrument are not likely to have communication in their work.

The study further looks at the second part of the total construct of ethical climate on the total construct of job satisfaction. Structural Equation Model path analysis with 5000 bootstrap samples, with bias corrected accelerated confidence intervals was used. Details of the results are presented in Figure 5 and Table 2.

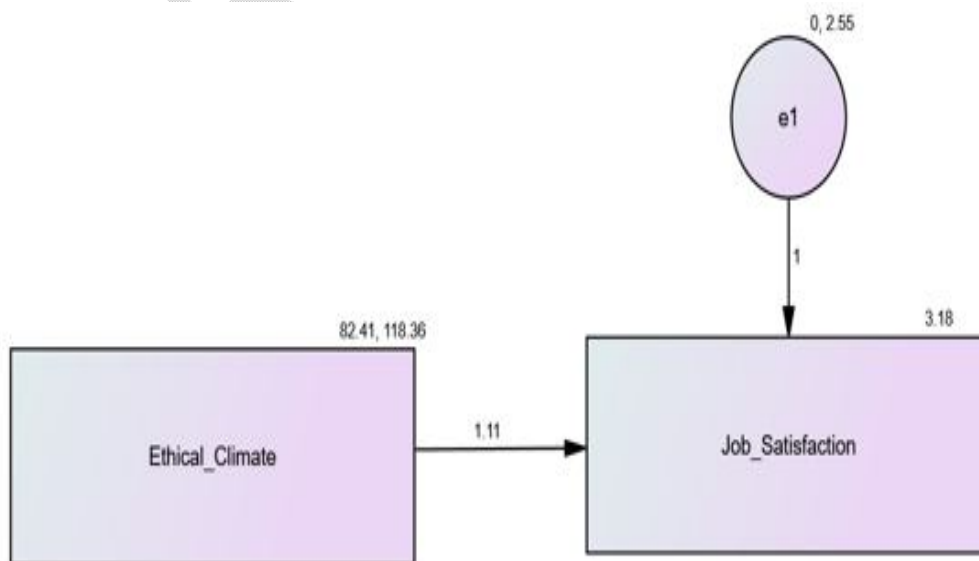


Figure 5- Path model of Ethical Climate and Job Satisfaction

From Figure 5, ethical climate predicts job satisfaction by 1.11 with a mean and error variance of (82.41, 118.36) respectively and an intercept of 3.18 for job satisfaction. Table 2 present the significance of the path model.

**Table 2:** Regression Model of Ethical Climate and Job Satisfaction

Dependent variable	Parameter	B	Std. error	CR	95%Confidence Interval	
					LLCI	ULCI
	Constant	3.185	.774	4.121	1.659	4.710
Job Satisfaction	Ethical Climate	1.109	.009	119.526	1.091	1.128

\*Significant,  $p < .05$ ;  $R = .991$ ;  $R^2 = .983$

Ethical climate and job satisfaction were determined using path analysis. From Table 2, ethical climate explained 9.83% of the variance in job satisfaction. Ethical climate was a substantial predictor of job satisfaction, [ $b = 1.11$ ;  $SE = .009$ ;  $Boot95\%CI (.1.091, 1.128)$ ]. This result ( $B = 1.11$ ) implies that ethical climate positively predicts job satisfaction. The result discovered that a surge in ethical climate would lead to 1.11 increase in job satisfaction.

#### **4.2 Mediating role of organisational commitment in the relationship between ethical climate and job satisfaction among College of Education tutors in Ghana.**

The aim of this hypothesis was to determine the mediating role of organisational commitment in the relationship between ethical climate and job satisfaction. Simple mediation analysis by Hayes' PROCESS was used to test this hypothesis. A bootstrap sample of 5000 was used for the analysis. Table 3 present the results.

As presented in Table 3, the direct effect of organisational commitment on job satisfaction was statistically significant,  $B = 1.108$ ,  $Boot95\%CI [1.090, 1.127]$ . This means that, without organisational commitment, ethical climate positively had 1.108 effect on job satisfaction. Further, with the introduction of organisational commitment, the indirect effect of ethical climate on job satisfaction was not statistically significant,  $B = .0011$ ,  $Boot95\%CI [-.0011, .0043]$ . This implies that the effect of ethical climate through organisational commitment was .0011. This suggests that organisational commitment does not mediate the relationship between ethical climate and job satisfaction. This mediation was partial as evidence shows in Table 3 that with the introduction of organisational commitment, the total effect had increased to 1.109, which is greater than the direct effect. The significance of the results is shown in Table 3.

Table 3: Direct and Indirect Effect

Parameter	Effect	SE	t	p	95%Confidence Interval	
					LLCI	ULCI
Total effect of X on Y	1.109	.0093	119.062	<.000	1.091	1.128
Direct effect of X on Y	1.108	.0093	118.864	<.001	1.090	1.127
Indirect effect of X on Y	Effect	SE	<i>BootLLCI</i>		<i>BootULCI</i>	
Organisational Commitment	.0011	.0013	-.0011		.0043	
Completely standardised indirect effect of X on Y	Effect	SE	<i>BootLLCI</i>		<i>BootULCI</i>	
Organisational Commitment	.0010	.0012	-.0010		.0038	

X-Ethical Climate; Y-Job Satisfaction \*Significant,  $p > .05$  level

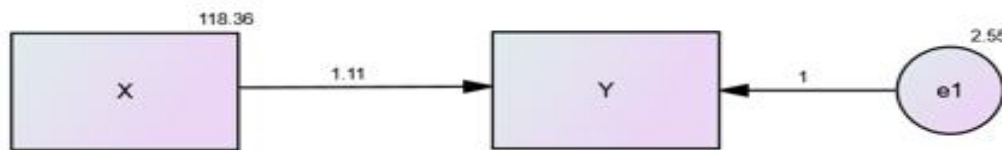


Figure 6: Final model based on research findings

The final model depicts direct relationship between ethical climate and job satisfaction. Ethical climate relationship directly influences job satisfaction of teachers. Thus organisational commitment does not mediate the effect of ethical climate and job satisfaction.

## 5. DISCUSSION AND RESEARCH IMPLICATIONS

The results in objective one aim to test whether or not ethical climate could predict job satisfaction of teachers. The results were in two folds. The first part looked at the sub-dimensions of ethical climate as predictors of sub-dimensions of job satisfaction and the second part looked at the prediction of total construct of ethical climate on the total construct of job satisfaction. The results revealed that taking into account five types of ethical climate, a statistically significant relationship was found between some of the five types of ethical climate (caring, law/code, rule, instrument and independence) and some of the sub-dimension of job satisfaction, while some of the sub-dimension of ethical climate did not have significant relationship with some of the sub-dimensions of job satisfaction. In contrast, no relationship was found between the instrumental type of ethical climate and the sub-dimensions of job satisfaction [82]. There are contradictory results regarding the impact of ethical climate of rules on job satisfaction. In a study by Dinc and Huric [83]. job satisfaction was significantly affected by two types of ethical climate, caring (positive) and rules (negative). Additionally, Karaca, Ozkan, and Kucukkelepce [84] found that respondents who were satisfied with their jobs scored statistically higher on ethical climate dimensions such as caring, independence, rules, and law

When the total construct of ethical climate was used in predicting the total construct of job satisfaction the study revealed that ethical climate had relationship with job satisfaction. It can therefore be concluded that as ethical climate of teachers increases the high teachers become satisfied with their job. Wang and Hseih [85] supported this idea suggesting that employees (teachers) who are treated ethical will believe that the institution

is fair towards them and will have higher job satisfaction. The results are in line with Okpara [63] who gathered data from 320 information communication technology managers in various businesses located in Nigeria. Using the ethical climate and job satisfaction questionnaire, the study reported that ethical climate significantly influenced managers job satisfaction with promotions, and supervision. When the total construct was joined together ethical climate significantly influenced job satisfaction.

The result revealed no significant effect of organisational commitment on the relationship between ethical climate and job satisfaction. This suggest that organisational commitment does not play any role as far as ethical climate influence teachers job satisfaction. Teachers, however, do not necessarily have to have ethical climate, which would in turn influence their commitment to work, then finally have job satisfaction. However, there was a direct relationship between ethical climate and job satisfaction. I would, therefore say that, teachers with higher ethical climate would have job satisfaction regardless of organisational commitment. The finding of this study agrees with Anaza, Rutherford, Rollins, and Nickell [41] who found a relationship between ethical climate and job satisfaction. Based on the result Anaza, Rutherford, Rollins, and Nickell [41] concluded that rules and regulations as a way to standardize employee behaviours and prevent unethical practices, principals must ensure that such codes specifically address issue pertaining to compensation, supervision and promotion.

The present study extends the application of the ethical climate and organisational commitment questionnaire from College of Education tutors, thus validating the usefulness of a multifaceted instrument. The sub-dimensions of ethical climate and the sub-dimensions of organisational commitment constructs examined revealed strong internal reliability, and discriminant validity for each construct within the context of College of Education Tutors. Furthermore, the application of the Ethical climate questionnaire and organisational commitment questionnaire confirms the appropriateness of using this instrument to measure other employees (tutors) in the Colleges of Education [7, 78].

## **6. CONCLUSION, FUTURE RESEARCH AND RECOMMENDATIONS**

Although this study provides an initial look into the relationship between ethical climate and job satisfaction as well as the mediating role of organisational commitment using a sample of tutors in the Colleges of Education, our results present several avenues for future research. We believe that the literature will benefit from replicating the current study into different institutions such as the universities, senior high schools and the basic schools to determine whether the results remain identical to our current findings or vary to a large extent based on institution type. Given that ethical climate and job satisfaction operate differently, the findings provide a roadmap for future research to explore moderation analysis looking at how the organisational commitment can play moderating role between ethical climate and job satisfaction which was not tested in the current study. In conclusion, this study confirms the relationship between ethical climate and job satisfaction among tutors in the Colleges of Education. When ethical climate of tutors increases the likelihood of tutors to be satisfied with their job. Principals at the Colleges of Education can enhance job satisfaction in the workplace by developing and encouraging ethical climate among tutors. These are important to reduce absenteeism and lateness as well as other organisational outcomes such as productivity and profitability. Thus, an increase in job satisfaction and organisational commitment can lead to a reduction in absenteeism in the workplace.

## **CONSENT**

The respondent's consent was sought before the commencement of data collection.

## **REFERENCES**

1. Bock, GW, Zmud, RW, Kim, YG, Lee, JN. Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organisational climate. MIS quarterly, 2005;87-111.

2. Pritchard, RD, Karasick, BW. The effects of organisational climate on managerial job performance and job satisfaction. *Organisational Behavior and Human Performance*,1973;9(1): 126-146.
3. Koh, EF, Boo, HC. Are client perceived audit firm reputation and adult team attributes associated with Big audit fees? Available at SSRN2004;542282.
4. Khan, S. Attaining customer loyalty. The role of customer attitude and consumer behaviour. *International Review of Management and Business Research*.2012;1(1): 1-15
5. Fraedrich, J, Farrell, O.C. *Business ethics, ethical decision making and cases*. Boston: Houghton Mifflin Co. 1994
6. Kaya, Ç, Başkaya, R. The roles of organisational and ethical climate on individual performance of employees. *Business Management Dynamics*. 2017;6(8): 27–38.
7. Victor, B, Cullen, JB. The organisational bases of ethical work climates. *Administrative Science Quarterly*. 1988;33, 101-125.
8. Mir, S. *Creating sustainable supply chains: Influencing Sustainable Practices in the Supply Chain*. University of Arkansas. 2017.
9. Peterson, DK. Deviant workplace behavior and the organisation's ethical climate. *Journal of Business and Psychology*. 2002a;17(1): 47-61.
10. Peterson, DK. The relationship between unethical behavior and the dimensions of the ethical climate questionnaire. *Journal of Business Ethics*. 2002b;41, 313-326.
11. Appelbaum, SH, Iaconi, GD, Matousek, A. Positive and negative deviant workplace behaviors: Causes, impacts, and solutions. *Corporate Governance*.2007;7, 586-598.
12. Felicio, DM, Pieniadz, J. Ethics in higher education: Red flags and grey areas. *Feminism and Psychology*. 1999;9(1): 53–73.
13. Byers, CP, Zhang, H, Swearer, DF, Yorulmaz, M, Hoener, BS, Huang, D, Landes, CF. From tunable core-shell nanoparticles to plasmonic drawbridges: Active control of nanoparticles optical properties. *Science Advances*. 2015;1, 11-21.
14. Morzaria, H. The crucial role of job satisfaction. Retrieved from <https://www.business2community.com/human-resources/the-crucial-role-of> 2019
15. Spector, PE. *Job satisfaction: Application, assessment, causes, and consequences*. London: Sage 1997
16. Luthans, E. "Organisational Behaviour," Irwin/McGraw Hill, New York 1998.
17. Collie, R, Shapka, J, Perry, N. School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teacher efficacy.*Journal of Educational Psychology*, 2012;104(4): 1189-1204.
18. Lambeck, K, Smither, C, Johnston, P. Sea-level change, glacial rebound and mantle viscosity for northern Europe. *Geophysical Journal International*, 1998;134(1): 102-144.
19. Selamat, N, Nordin, N, Adnan, A. Rekindle teacher's organisational commitment: The effect of transformational leadership. *Procedia: Social and Behavioral Sciences*, 2013; 90, 566-574.
20. Elizur, D, Koslowsky, M. Values and organisational commitment. *International Journal of Manpower*. 2000;22, 593-599.

21. Grdinovac, JA, Yancey, GB. How organisational adaptations to recession relate to organisational commitment. *The Psychologist-Manager Journal*. 2012;15(1): 6-24.
22. Sentuna, M. Investigation of job satisfaction, organisational commitment, and self-esteem of physical education teachers according to gender. *International Online Journal of Education Sciences*. 2015;7(2): 93-101.
23. Young, MB. Who can you count on? *Across the Board*, 1994;35, 28-32.
24. David, S, Gidwani, R, Bithare, N, Singh, P. Impacts of job satisfaction and organisational commitment: A study describing influence of gender difference on job satisfaction and organisational commitment. *International Journal of Core Engineering and Management*. 2015;2(1): 93-111.
25. Klein, E, Izzo, J. Corporate soul for competitive advantage: Coming alive at work and inspiring employee commitment in uncertain times. *Association Management*. 1996;48, 104-106.
26. Simpson, ER. Aromatase deficiency in male and female siblings caused by a novel mutation and the physiological role of estrogens. *The Journal of Clinical Endocrinology & Metabolism*. 1995;80(12): 3689-3698.
27. Aydogdu, S, Asikgil, B. An empirical study of the relationship among job satisfaction, organisational commitment, and turnover intention. *International Review of Management and Marketing*. 2011;3(1): 43-53.
28. Meyer, J, Stanley, D., Jackson, T, McInnis, K, Maitlin, E, Sheppherd, L. Affective normative, and continuance commitment levels across cultures: A meta-analysis. *Journal of Vocational Behavior*. 2012;80(2): 225-245
29. Rusu, R. Affective organisational commitment, continuance organisational commitment, or normative organisational commitment? *Bulletin Scientific*. 2013;18(2): 192-197.
30. Zehir, C, Muceldili, B, Zehir, S. The moderating effect of ethical climate on the relationship between job satisfaction and ethical climate. *Procedia: Social and Behavioral Sciences*. 2012;58, 734-743.
31. Nagar, K. Organisational commitment and job satisfaction among teachers during times of burnout. *Vikalpa*. 2012;37(2): 43-60.
32. Nawab, S, Bhatti, K. Influence of employee compensation on organisational commitment and job satisfaction. *International Journal of Business and Social Science*. 2011;2(8): 25-32.
33. Wang, YD, Hsieh, HH. Toward a better understanding of the link between ethical climate and job satisfaction: a multilevel analysis. *J Bus Ethics* 2012;105, 535–545.
34. Shiry, MR. Ethical climate in nursing practice: the leader's role. *JONASHealthc Law Ethics Regul*. 2005;7(2): 59–67
35. Filipova, A. Perceived organizational support and ethical work climates as predictors of turnover intention of licensed nurses in skilled nursing facilities. PhD Thesis, Western Michigan University, Kalamazoo, MI, 2007.
36. Jahangir, FM, Shokrpour, NP. Three components of organizational commitment and job satisfaction of hospital nurses in Iran. *Health Care Manag*. 2009;28(4): 375–380
37. Wimbush, JC, Shepard, JM. Toward an understanding of ethical climate: Its relationship to ethical behavior and supervisory influence. *Journal of Business ethics*. 1994;13(8); 637-647.

38. Robin, DP, Reidenbach, RE. Social responsibility, ethics, and marketing strategy: Closing the gap between concept and application. *Journal of marketing*. 1987;51(1): 44-58.
39. Belete, K. Comparison of self-pollinated and cross-pollinated populations in grain sorghum. *Ethiopian Journal of Agricultural Sciences (Ethiopia)*, 1994.
40. Vitell, SJ, Ramos, E, Nishihara, CM. The role of ethics and social responsibility in organizational success: A Spanish perspective. *Journal of Business Ethics*. 2010;91(4): 467-483.
41. Anaza, NA, Rutherford, B, Rollins, M, Nickell, D. Ethical climate and job satisfaction among organizational buyers: An empirical study. *Journal of Business & Industrial Marketing*. 2015;30(8): 962-972.
42. Moore, HL. "Ethical climate, organisational commitment, and job satisfaction of full-time faculty members". Retrieved from Electronic Theses and Dissertations. Paper 1407. <https://dc.etsu.edu/etd/1407/2012>
43. Huynh, CT. Understanding competing climates: A Theoretical Framework for Examining Service and Ethical Climates. Dissertation. 821. Retrieved from <https://digitalcommons.latech.edu/dissertations/821/2019>
44. Deshpande, SP. The impact of ethical climate types on facets of job satisfaction: An empirical investigation. *Journal of Business Ethics*. 1996;15(6): 655-660.
45. Elçi, M, Alkan, L. The impact of perceived organisational ethical climate on work satisfaction. *Journal of Business Ethics*. 2009;84(3): 297-311
46. Ulrich, C, O'Donnell, P, Taylor, C, Farrar, A, Danis, M, Grady, C. Ethical climate, ethics stress, and the job satisfaction of nurses and social workers in the United States. *Social Science & Medicine*. 2007;65(8): 1708-1719
47. Tsai, M.T, Huang, CC. The relationship among ethical climate types, facets of job satisfaction, and the three components of organisational commitment: A study of nurses in Taiwan. *Journal of Business Ethics*. 2008;80(3): 565-581
48. Martin, KD, Cullen, JB. Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of Business Ethics*. 2006;69(2): 175-194.
49. Doğanay, B. The relationship between perceived ethical climate and teacher burnout. Unpublished Master's Thesis, Middle East Technical University, 2019.
50. Allotey, MA. Organisational commitment, job satisfaction and turnover intentions of informal work groups: A study among organisations in Accra. Unpublished Master's Thesis, University of Ghana, 2019.
51. Supartha, WG, Sihombing, IHH, Sukerti, NN. The mediating role of organisational commitment and the moderating role of service climate. *Advances in Economics, Business and Management Research*. 2018;72, 160-165.
52. Schwepker, Jr. CH. Ethical climate's relationship to job satisfaction, organisational commitment, and turnover intention in the salesforce. *Journal of Business Research*. 2001;54, 39- 52
53. Zehir, C, Erdogan, E, Basar, D. The relationship among charismatic leadership, ethical climate, job satisfaction, and organisational commitment in companies. *Journal of Global Strategic Management*. 2011;10, 49-58.

54. Kohlberg, L. Continuities and discontinuities in childhood and adult moral development. *Human Development*. 1969;12(2): 93-120.
55. Martin, KD, Cullen, JB. Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of Business Ethics*. 2006;69(2): 175-194.
56. Schminke, M, Ambrose, ML, Neubaum, DO. The effect of leader moral development on ethical climate and employee attitudes. *Organisational Behavior and Human Decision Processes*. 2005;97(2): 135-151.
57. Aquino, K, Becker, TE. Lying in negotiations: How individual and situational factors influence the use of neutralization strategies. *Journal of Organisational Behavior*. 2005;26(6): 661-679.
58. Anaza, NA., Rutherford, B, Rollins, M, Nickell, D. Ethical climate and job satisfaction among organisational buyers: an empirical study. *Journal of Business & Industrial Marketing*. 2015;30(8): 962–972
59. Jaramillo, F, Mulki, JP, & Solomon, P. The role of ethical climate on salesperson role stress, job attitudes, turnover intention, and job performance. *Journal of Personal Selling and Sales Management*. 2006;26(3): 271–282.
60. Armstrong, A, Francis, R. An Ethical Climate is a Duty of Care Introduction: What do We Mean by a Duty of Care? *Journal of Business Systems, Governance, and Ethics*. 2008;3(3): 15–20.
61. Nafie, WA. Ethical climate as a moderator of the relationship between job satisfaction and organisational commitment: Evidence from industrial companies in Egypt. *International Journal of Investment Management and Financial Innovations*. 2015;1(1): 1–15
62. Daneshfard, K, Rahimi, G, Damirchi, QV. Surveying the role of ethical climate on job satisfaction in iran's small and medium enterprises. *Kuwait Chapter of Arabian. Journal of Business and Management Review*, 2011;1(2).
63. Okpara JO. The influence of ethical climate types on job satisfaction of IT managers: implications for management practice and development in a developing economy, academy of business & administrative sciences. Seventh International Conference, San Jose, Costa Rica, 2002.
64. Borhani, F, Jalali, T, Abbaszadeh, A, Haghdoost, A. Nurses' perception of ethical climate and organisational commitment. *Nursing Ethics*. 2013;5, 1-11.
65. Ozdoba, P, Dziurka, M, Pilewska-Kozak, A, Dobrowolska, B. Hospital ethical climate and job satisfaction among nurses: A Scoping Review. *Int. J. Environ. Res. Public Health*. 2022;19, 45-54
66. Menes, CC, Haguisan, IA. Ethical climate, job satisfaction and organisational commitment of hotel employees. *Philippine Social Science Journal*. 2020;3(3): 95-106.
67. Unal, OF. Mediating role of facets of job satisfaction on the relationship between ethical climate and the dimensions of organisational commitment. *Journal of WEI Business and Economics*. 2012;1(1): 92-105
68. Krejcie, RV, Morgan, DW. Determining sample size for research activities. *Educational and Psychological Measurement*. 1970;30(3): 607-610.
69. Pallent, J. *SPSS Survival Manual: A Step By Step Guide to Data Analysis Using SPSS Program (6th ed.)*. London, UK: McGraw-Hill Education, 2010.
70. Fornell, CG, Larcker, DF. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*. 1981;18(1): 39–50.

71. Hair, JF, Black, WC, Babin, BJ, Anderson, RE, Tatham, RL. *Multivariate data analysis* (6th ed.). Pearson/Prentice Hall, 2006.
72. Awang, Z. *Structural equation modeling using Amos graphic*. Kelantan: University Technology MARA Press, 2012.
73. Awang, Z. *Research methodology and data analysis*(2nd ed.). Universiti Teknologi Mara, Malaysia: UiTM Press, 2014.
74. Kline, RB. Assessing statistical aspects of test fairness with structural equation modelling. *Educational Research and Evaluation*. 2013;19(2): 204-222.
75. Schreiber, JB, Nora, A, Stage, FK, Barlow, EA, King, J. Reporting structural equation modeling and confirmatory factor analysis results. A review. *The Journal of Educational Research*. 2006;99(6): 323-338.
76. Civelek, ME. *Essentials of Structural Equation Modelling*. Lincoln: University of Nebraska, 2018.
77. Srem-Sai, M, Quansah, F, Frimpong, JB, Hagan, JE Jr, Schack, T. Cross-cultural applicability of organisational stressor indicator for sport performers questionnaire in Ghana using structural equation modeling approach. *Front. Psychol*. 2021;12, 772184
78. Britwum, F, Amoah, SO, Acheampong, HY, Adjei, E. Self-esteem as a predictor of students' academic achievement in the colleges of education. *International Journal of Learning and Teaching*. 2022;14(1): 43-54
79. Allen, NJ, Meyer, JP. The measurement and antecedents of affective, continuance and normative commitment to the organisation. *Journal of Occupational Psychology*. 1990;63(1): 1-18.
80. Spector, PE. Measurement of human service staff satisfaction: development of the job satisfaction survey. *Am J Community Psychol*. 1985;13, 693-713.  
<https://doi.org/10.1007/BF00929796>
81. Tsounis, A, Sarafis, P. Validity and reliability of the Greek translation of the Job Satisfaction Survey (JSS). *BMC psychology*. 2018;6(1): 1-6.
82. Borhani, F, Jalali, T, Abbaszadeh, A, Haghdoost, AA, Amiresmaili, M. Nurses perception of ethical climate and job satisfaction. *J. Med. Ethics. Hist. Med*. 2012;5, 6-19.
83. Dinc, MS, Huric, A. The impact of ethical climate types on nurse's behaviors in Bosnia and Herzegovina. *Nurs. Ethics*. 2017;24, 922-935
84. Karaca, T, Ozkan, SA, Kucukkepce, D. Determining the ethical climate perceptions of nurses and midwives in an obstetrics and pediatrics hospital. *Int. J. Caring Sci*. 2018;11, 1006-1013.
85. Wang, Y, Hsieh, H. Toward a better understanding of the link between ethical climate and job satisfaction: A multilevel analysis. *Journal of Business Ethics*. 2012;105, 535-545.