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# Leadership Styles of Principals Based on Setting, Zone, and Location of Public Colleges of Education in Ghana

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## Abstract

This study investigated the leadership styles of principals in public Colleges of Education (CoEs) in Ghana based on the setting, zone and location of the colleges. The quantitative method of the cross-sectional survey design was adopted for the study. The census sampling technique was employed to obtain 38 principals for the study. The Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (2004) was adapted to collect data from the principals. Means, standard deviation, t-test and ANOVA were utilised in analysing the data. The descriptive analysis established that generally, principals of public CoEs in Ghana mostly used transformational leadership style as compared to transactional and laissez-faire leadership styles. The inferential analyses also revealed that there were no statistically significant differences in the leadership styles of the principals based on setting, zone and location of the colleges. Among the recommendations is that the Ghana Tertiary Education Commission (GTEC), formerly known as the National Council for Teacher Education (NCTE), should consider competence when selecting and appointing principals and not the setting, zone and location of public CoEs because generally, these variables did not statistically significantly determine the leadership styles adopted by the principals.

**Keywords:** Leadership Styles, Principals, Setting of College, Zone of College, Location of College

## INTRODUCTION

The past century has seen a dramatic increase in the economic and political importance of education, making the budget for education one of the largest public spending item in many countries (Plank & Davis, 2020). As such, the importance of education in every country's growth cannot be overemphasized because it is essential in ensuring successful lives of individuals (Saif, Reba & ud Din, 2017). Similarly, Shaw (2011) argues that education is crucial in bringing changes among individuals to enable them to become more functional in the society and impact on societal development. Nsubuga, as cited in Omar and Kavale (2016) purports that formal education system, which comprises basic, secondary, and tertiary training, is very instrumental in developing human capacity for every nation. Aikaman and Unterhalter (2005) share this view when they also argue that education is considered as an important strategy in developing a society. Education, which is "the bedrock and the pillar around which countries develop" (Mensah & Amponsah, 2016, p. 47), could be explained as the development of desirable habits, skills, and attitudes through shaping or modification of behaviour of the individual for adequate adjustment in the society.

Hence, Barrichello, Morano, Feldmann and Jacomossi (2020) sum up the importance of education by indicating it is the antecedent of a nation's competitiveness and modernisation.

Throughout the world, governments have embarked on various educational reforms in order to ensure that quality education is provided to the citizenry (Ylimaki cited in Brezicha, Bergmark & Mitra, 2015). As a result, the role of school leaders has become the focus when it comes to the effective implementation of these educational reforms (Hallinger & Wang, 2015, p. 5; Clifford, Behrstock-Sherrat & Fetters, cited in Brezicha, Bergmark & Mitra, 2015, p. 97). Principals of public Colleges of Education (CoEs) in Ghana, like all other principals of educational institutions in the world, are regarded as leaders who, according to Ngussa, Arego and Kuboja (2015, p. 129) know the way, show the way, walk the way, and ensure that policies, procedures and decisions are implemented with the aim of attaining the set objectives and goals of their respective colleges. In view of this, one cannot discount the significant role of principals in achieving the desired educational outcomes of their colleges.

For the past decade, interest in academic issues has developed day by day by exploring the subject of leadership in higher education, dealing with variations in technological know-how, globalisation, and working innovative practices worldwide, in different industries, and in higher education (Khan, Ismail, Hussain, & Alghazali, 2020). Leadership, as a concept, has been defined in various ways by scholars to suit their views, interests and experiences (Yukl, 2013). As a result, there are variances in how scholars understand the concept of leadership (Adams, Kutty & Zabidi, 2017), with some conceptualizing it "as power, authority, management, administration and supervision" (Boateng, 2012, p. 128). According to Amanchukwu, Stanley and Ololube (2015, p. 7), leadership could be explained as "a relational process that involves mobilizing, influencing, and guiding a group of people to achieve desired goals." Adeyemi and Bolarinwa (2013, p. 187) posit that "leadership is the process of influencing people to willingly work together to achieve set objectives." From the definitions, leadership could be understood as the process of influencing a group of people or a team and providing them with an enabling environment to work collectively to achieve the vision of an organisation.

Evidence exists that leadership plays a crucial role in the achievement of goals and objectives of a school. Mwaura, Thinguri and Mwangi, as cited in Makewa, NgussaBaraka, Arego & Kuboja, (2015) postulate that the quality of education seen in any school is, to a large extent, influenced by the quality of leadership practiced in that school. It is also argued that school leadership is considered as the most crucial and essential factor in a school's success (Salfi, Virk & Hussain, 2014). Similarly, school leadership is significant in ensuring desirable student achievement (Bush, 2016; Wahlstrom, Seashore, Leithwood & Anderson, 2010). This view is shared by other researchers who maintain that leadership is relevant in attaining desired and expected school goals (Makewa, NgussaBaraka, Arego & Kuboja, 2015). This implies that leadership style of principals of public CoEs in Ghana is very crucial in achieving the educational goals because it affects everything and everyone in the colleges.

## **LEADERSHIP STYLES**

Leadership styles refer to the general ways through which subordinates are influenced by their leaders to achieve the goals of an organization. Kiboss and Jemiryott (2014, p. 495) explain leadership styles as "the patterns of behaviour used by leaders in an attempt to influence group members and make decision regarding the mission, strategy, and operations of group activities." Citing Chi, Lan and Dorjgotov (2012) and Riaz, Akram, and Ijaz (2011), Yeh and Hong (2012) postulate that employee motivation, commitment, and performance, are greatly influenced by leadership style to achieve organisational objectives. Similarly, Ibukun, Oyewole and Abe (2011) assert that quality and standards in education could be maintained largely as a result of the ways through which principals effectively perform their leadership responsibilities. This is corroborated by Eyal and Roth (2011) who purport that leadership styles play a significant role in teacher motivation and student achievement. Thus, leadership style of principals of public CoEs in Ghana is vital to the success of the colleges.

Experts in the field of leadership have classified leadership styles in different ways. In one of the most comprehensive reviews on school leadership models, Leithwood and Duke (1999) identified twenty distinct leadership concepts and models and clustered them into six different categories. These categories, not in any order of importance, are transformational, participative, instructional, moral, contingent, and managerial forms of school

leadership. This study, however, is based on Bass and Avolio's (2004) Full Range Leadership Theory (FRLT) comprising transactional, transformational and laissez-faire leadership styles which are found in a continuum. The underlying concept of the FRLT is based on the argument that every leader, to a large extent, may exhibit transactional, transformational and laissez-faire leadership styles.

Transformational leadership seeks to build vision, motivate subordinates, enable intellectual reflection in a professional manner, and assist individual employees in the organisation. By providing individual support, the leader can understand, recognize, and satisfy the concerns and needs of subordinates even though each employee is treated as a unique individual and the leader acts as a role model and encourages teachers to question and reflect critically on their professional values and beliefs (Brezicha, Bergmark & Mitra, 2015, p. 100). Through transformational leadership, tutors of public CoEs in Ghana could be inspired and motivated to look beyond their own self-interest and work hard to attain set goals. Transactional leadership on the other hand seeks to guide and motivate their subordinates to achieve established goals by clarifying role and task requirements, and assisting employees to identify what must be done to achieve desired results (Robbins & Sanghi, 2005). Sadeghi and Pihie (2012) stress that transactional leadership gives the opportunity to subordinates to fulfill their own self-interest, minimise workplace anxiety, and concentrate on clear organizational objectives such as increased quality, customer service, reduced costs, and increased production. Laissez-faire leadership is an inactive leadership style where the leader rejects responsibility, delays decisions, does not provide feedback, and makes no effort to meet the needs of the followers (Hoy & Miskel, 2013). The leader avoids clarifying expectations, resolving conflicts, and making decisions. It is therefore considered as absence of leadership.

The FRLT which has been widely used in different regions of the world, especially in the United States of America, will serve as a useful summary of the key leadership concepts in public CoEs in Ghana in contemporary times.

## THE STUDY CONTEXT

Acheampong (2003) indicates that most of the public Teacher Training Colleges (TTCs), now Colleges of Education (CoEs) in Ghana were started as missionary institutions to train ministers, catechists and later teachers. Others were originally traditional secondary schools, which were later converted into Teacher Training Colleges (TTCs). Anamuah-Mensah (2006) argues that since the establishment of institutions to train teachers, many modifications which were as a result of policy changes aimed at producing well trained teachers to meet educational needs at various times, have been made in Ghana's teacher education. These changes, according to Newman (2013), no doubt, have resulted in the production of different cohort of teachers with different types of certificates. In 2004, an Education Review Committee recommended that colleges to be upgraded led to further discussions with the Minister of Education. Subsequently, a College of Education Bill was drafted and this later became a law through the passage of Act 847 by the Parliament of the Republic of Ghana. This was consequently signed into a law on June 27, 2012, which gave way for the CoEs to become full-fledged tertiary institutions in Ghana. Hence, TTCs which were operating at a level equivalent to Level 4 of the International System of Classification of Education (ISCED 4) was re-designed as CoEs to offer tertiary education in 2008 (Newman, 2013).

In Ghana, CoEs are tertiary institutions established to train students to acquire the necessary professional and academic competencies for teaching in pre-tertiary institutions and non-formal education institutions; build the professional and academic capacities of serving teachers through regular continuing education; provide programmes that will promote the effective teaching of science, mathematics, information and communication technology and other related subjects to meet the needs of contemporary society; and foster links with relevant institutions and the community in order to ensure the holistic training of teachers (Colleges of Education Act, 2012). Currently, there are forty-six (46) public CoEs in Ghana grouped under five zones (Central/Western, Eastern/Greater Accra, Volta, Ashanti/Brong Ahafo, Northern) as specified by the Conference of Principals of Colleges of Education (PRINCOF). The colleges are responsible for the training and preparation of teachers for both primary and junior high school levels in Ghana's basic education setting. Each of these colleges is headed by a principal who is the chief academic, administrative, and disciplinary officer responsible for the general direction

of the College Council or policies that the Council may give. Some specific duties include exercising general authority over staff of the college, and responsible for admissions of students.

Ghana, like many countries, face challenges in their education system. It had been observed that most teachers produced by the public CoEs in Ghana over the years were not committed and dedicated. There had been issues about negative attitude of some teachers and supervisors towards instructional supervision in basic schools. Furthermore, numerous minor reforms in Ghana's education for over twenty years had not yielded the desired learning outcomes of learners. Again, preparation of teachers had also not adequately brought about improvement in learning outcomes among learners in basic schools. In view of these challenges, the Government of Ghana, through its Ministry of Education, and with the support from Transforming Teacher Education and Learning, decided to transform initial teacher education in CoEs and universities that train teachers and to provide highly qualified and motivated teachers who are able to inspire their pupils to achieve better outcomes in basic education.

The aim of the new reforms is to instill in new teachers the Nation's core values of honesty, integrity, creativity and responsible citizenship and to achieve inclusive, equitable, high quality education for all learners in line with the Sustainable Development Goal Four (SDG4). The vision of the reform is to prepare new teachers to become effective, engaging and inspirational, and be fully prepared to teach the basic school curriculum in order to improve learning outcomes and life chances of all learners as set out in the National Teachers' Standards (NTS). Consequently, from October 2018, public CoEs in Ghana began to admitting teacher trained for a 4-Year Bachelor of Education degree programmes.

To achieve these responsibilities, the CoEs need principals (leaders) who can spearhead the activities of the Colleges to achieve the goals set. These Colleges which are either single sex or mixed sex (co-education) in setting, may be found in rural, semi-urban and urban areas. In performing their duties, principals of public CoEs adopt different leadership styles or a combination of different leadership styles at any point in time, depending on the situation at hand, to ensure the attainment of college and educational goals. The leadership styles adopted by the principals of public CoEs in Ghana, range from autocratic, democratic, transactional, transformational, to *laissez-faire*.

## **THE PROBLEM**

Many scholars contend that demographic variables are critical factors that could be used with other factors to explain the different leadership styles (Bell, Rvanniekerk & Nel, 2015) adopted by principals of colleges. Waters (2013) found out that teachers working in all-boys' and mixed sex schools perceived their principals to be more transformational than transactional in their leadership styles while teachers working in all-girls' schools rated their principals as being slightly more transactional in their styles of leadership. Although transformational styles of leadership were perceived to be exhibited more in all-boys' and mixed sex schools, the overall differences were not significant, implying that the nature or type of school (single sex or mixed sex) is not associated with the leadership style.

There has been a long-standing debate among researchers on the leadership style that is mostly used by principals of colleges and there has not been any conclusion on the issue. For instance, school principals have been found to exhibit transformational leadership style more than transactional and *laissez-faire* leadership styles (Amponsah, 2015; Danquah, 2013; Waters, 2013; Hariri, 2011), while other research findings such as that of Boateng (2012) have established that principals employed transactional leadership style more than transformational and *laissez-faire* leadership styles. Hence, the debate on the leadership styles adopted by principals or heads of schools has not been conclusive. This brings the question as to which leadership style is dominantly used by principals of public CoEs in Ghana?

A Pearson chi-square results from Water's (2013) study showed that there is no significant association between perceived leadership style and the regions (zones) in which the schools were found. Adu, Akinloye and Olaoye's (2014) study revealed that there is no significant difference in leadership styles of principals in rural and urban

areas. Scot (2008) however deduced a significant difference between the perception of teachers on leadership styles when compared by the type of community (rural an urban) in which the schools were located.

According to Bell, Rvanniekerk and Nel (2015) the variables responsible and significant for the adoption of leadership styles by principals have resulted in many arguments among scholars. These arguments and discussions have not been conclusive in the context of public CoEs in Ghana. Again, some studies on leadership styles conducted in Ghana considered sex/gender, academic qualifications, marital status, and years of work experience as demographic variables that account for the styles of leadership exhibited by heads of educational institutions. The question is, are these the only demographic factors that are perceived to influence leadership styles adopted by principals of public CoEs? This study was therefore necessary to help understand other demographic variables (setting of college, zone of college, and location of college) that are perceived to account for the variances in leadership styles adopted by principals of public CoEs in Ghana. This will help contribute to knowledge, literature, and the debate on variances in leadership styles of principals based on demographic variables and form the basis for further research on the topic. Again, the findings of this study will have practical and policy implications for the principals and the Ghana Tertiary Education Commission (GTEC).

## **METHOD**

In Ghana, public CoEs are either single-sex or mixed-sex (setting) and are put into five zones (Central-Western, Eastern-Greater Accra, Volta Ashanti-Brong-Ahafo, and Northern) in urban, semi-urban and rural areas (location). This study, which was conducted between September and December 2019, adopted the quantitative cross-sectional survey design. The target population comprised all principals of the 48 CoEs (public and private) in Ghana. The accessible population on the other hand was made up of all principals of public CoEs who had worked in their respective colleges for at least a year. At the time of this study, forty (40) principals out of the forty-six (46) had been at post for at least a year. The census sampling technique was used to select the 40 principals for this study. The Multifactor Leadership Questionnaire (MLQ) by Bass and Avolio (2004) which has been widely used all over the world and as such, standardised, was used to collect data for this study. Out of the forty (40) questionnaires administered, thirty-eight (38) were retrieved and used for the analyses. Several attempts to retrieve the remaining eight questionnaires proved futile. This indicated a response rate of 95%. The use of 38 respondents for the quantitative study was deemed appropriate considering the research topic, population and the purpose of the study (Davies, Williams & Yanchar, 2004). Altunişik, Coşkun, Bayraktaroğlu and Yildirim (2004) as cited in Delice (2010) argue that a sample size ranging from 30 to 500 at 95% confidence interval is good for a quantitative study. In analyzing the data, means, standard deviation, t-test and ANOVA were used.

## **Hypotheses**

The following hypotheses were therefore formulated and tested:

- H0<sub>1</sub>: There is no statistically significant difference in the leadership style of principals of public CoEs in Ghana based on the setting (single sex or mixed sex) of the college.
- H0<sub>2</sub>: There is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on the zone of the college.
- H0<sub>3</sub>: There is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on the location (rural, semi-urban or urban) of the college.

## **RESULTS AND DISCUSSION**

This study investigates the leadership styles of principals in public Colleges of Education (CoEs) in Ghana based on the setting, zone and location of the colleges. The cross-sectional survey design based on quantitative approach was adopted for this study. In line with the purpose and design of this study, the data was analysed using means, standard deviation, t-test, and ANOVA.

### *Analysis of Personal Characteristics of Principals*

The results of the analysis of the bio-data are presented in Table 1. The data in Table 1 revealed that 13.2% of the principals were in single-sex colleges while 86.8% were in mixed-sex colleges, suggesting that there are more mixed-sex public CoEs in Ghana as compared to single-sex colleges. It is also realised that 15.8% of the principals were from the Central-Western Zone, 18.4% from the Eastern-Greater Accra Zone, 18.4% from the Volta Zone, 29.0% from the Ashanti-Brong Ahafo Zone, and 18.4% from the Northern Zone. More so, 60.5% of the principals were in colleges situated in urban areas, 29.0% of the principals had their colleges in semi-urban areas, while 10.5% of the principals had their colleges in rural areas.

Table 1: Analysis of Personal Characteristics of Principals

<b>Personal Variables</b>	<b>Response</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
Setting of College	Single-sex College	5	13.2
	Mixed-sex College	33	86.8
	Total	38	100.0
Zone of College	Central-Western	6	15.8
	Eastern-Greater Accra	7	18.4
	Volta	7	18.4
	Ashanti-Brong Ahafo	11	29.0
	Northern	7	18.4
	Total	38	100.0
Location	Urban	23	60.6
	Semi-urban	11	29.0
	Rural	4	10.5
	Total	38	100.0

### *Interpretation of Means*

In analyzing the research question and testing the hypotheses based on the data collected, we used the following interpretations for the means: Once in a while (0.1-1.0); sometimes (1.1-2.0); fairly often (2.1-3.0); and frequently if not always (3.1-4.0).

### *Analysis of Research Question*

What leadership style is mostly used by principals of public CoEs in Ghana?

It is believed that leaders of public CoEs in Ghana adopt varied leadership styles in ensuring that college and educational goals are effectively achieved. However, one could not determine the leadership style that is mostly exhibited by the principals of these colleges. Hence, this study sought to investigate the leadership style that is dominant among principals of public CoEs in Ghana, and the results are presented in Table 2.

Table 2: Leadership Style Mostly Used by Principals

<b>Leadership Style</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Interpretation</b>
Transactional	1.30	0.23	Sometimes used
Transformational	2.79	0.20	Fairly often used
Laissez-faire	0.60	0.51	Once in a while used

The data in Table 2 show that the mean score for transformational leadership style ( $M=2.79$ ,  $SD=0.20$ ) is numerically higher than that of transactional leadership style ( $M=1.30$ ,  $SD=0.23$ ) and laissez-faire leadership style ( $M=0.60$ ,  $SD=0.51$ ). Inferring from these descriptive data, it is suggested that principals of public CoEs in Ghana mostly used transformational leadership style as compared to transactional leadership style and laissez-faire leadership style. The principals also exhibited transactional leadership style more than laissez-faire leadership style.

style. The implication is that laissez-faire leadership style was least practiced by the principals. Again, it could be inferred from the analysis of the differences in the means obtained for the various leadership styles that the principals of public CoEs in Ghana fairly often made use of transformational leadership style, sometimes exhibited transactional leadership style and occasionally adopted laissez-faire leadership style.

### **Results of Test of Hypothesis 1 ( $H_{01}$ )**

$H_{01}$ : There is no statistically significant difference in the leadership style of principals of public CoEs in Ghana based on the setting (single sex or mixed sex) of the college.

The first hypothesis was aimed at determining the extent of differences in the means for the leadership styles adopted by the principals based on whether the college in which they performed their leadership functions was a single sex or a mixed-sex (coeducational) one. The results of the test of hypothesis are presented in Table 3.

Table 3: T-Test Results for Nature of College and Leadership Styles

Leadership Style	Nature of College	Mean	Std. D	t	df	Sig. (2-tailed)	Mean Difference
Transformational	Single-Sex	2.73	0.28	-0.868	36	0.401	-0.095
	Mixed-sex	2.83	0.16				
Transactional	Single-Sex	1.45	0.17	1.924	36	0.076	0.225
	Mixed-sex	1.23	0.23				
Laissez-faire	Single-Sex	1.20	0.45	0.342	36	0.738	0.100
	Mixed-sex	1.10	0.57				

$p = 0.05$

A comparison of the results in Table 3 indicate that principals of public CoEs in Ghana often practiced transformational leadership even though principals in mixed-sex Colleges rated higher ( $M = 2.83$ ,  $SD = 0.16$ ) than those in single-sex colleges ( $M = 2.73$ ,  $SD = 0.28$ ). The principals sometimes exhibited transactional leadership irrespective of the fact that principals in single-sex Colleges practiced more transactional leadership style ( $M = 1.45$ ,  $SD = 0.17$ ) than those in mixed-sex Colleges ( $M = 1.23$ ,  $SD = 0.23$ ). Similarly, the principals sometimes adopted laissez-faire leadership style. However, those in single-sex Colleges rated higher ( $M=1.20$ ,  $SD=0.45$ ) than their counterparts in mixed-sex colleges ( $M=1.10$ ,  $SD=0.57$ ). An independent samples t-test we used to test the hypothesis revealed that there were no statistically significant differences among the principals in their use of transformational [ $t(13) = -0.868$ ,  $p=0.401$ , 2-tailed], transactional leadership style [ $t(13) = 1.924$ ,  $p = 0.076$ , 2-tailed], and laissez-faire leadership style [ $t(13) = 0.342$ ,  $p = 0.738$ , 2-tailed] at 0.05 based on the setting of the Colleges.

Based on these results, it could be said that the leadership styles adopted by principals of public CoEs in Ghana were not based on the setting (single-sex or mixed-sex) of the college. Thus, we failed to reject the null hypothesis that there is no statistically significant difference in the leadership style of principals of public CoEs in Ghana based on the setting of the College. This implies that whether the College is a single-sex or mixed-sex one does not determine the leadership style adopted by the principal. This finding seems to be in line with that of Waters (2013) whose study revealed that principals in all-girls' schools were slightly more transactional in their styles of leadership while principals in all-boys' and mixed-sex schools were more transformational than transactional in their leadership styles even though the overall differences were not significant.

### **Results of Test of Hypothesis 2 ( $H_{02}$ )**

$H_{02}$ : There is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on the zone of the college.

The second hypothesis was tested to determine whether significant differences existed in the leadership styles of the principals as a result of the zones which the colleges were found. The results of the test of the second hypothesis are shown in Table 4.

Table 4: ANOVA Results for Zones and Leadership Styles

Leadership Style	Zone	Mean	Std. Dev.	Sum of Squares	df	Mean Square	F	Sig.
Transformational	Central/Western	2.63	0.28	0.208	4	0.052	1.520	0.269
	Eastern/Greater Accra	2.70	0.21	0.342	33	0.034		
	Volta	2.93	0.11	0.549	37			
	Ashanti/Brong Ahafo	2.91	0.13					
	Northern	2.73	0.24					
	Total	2.79	0.20					
Transactional	Central/Western	1.44	0.17	0.172	4	0.043	0.729	0.592
	Eastern/Greater Accra	1.21	0.06	0.589	33	0.059		
	Volta	1.22	0.06	0.761	37			
	Ashanti/Brong Ahafo	1.23	0.29					
	Northern	1.42	0.30					
	Total	1.30	0.23					
Laissez-faire	Central/Western	0.33	0.58	0.567	4	0.142	0.467	0.759
	Eastern/Greater Accra	0.50	0.71	3.033	33	0.303		
	Volta	1.00	0.10	3.600	37			
	Ashanti/Brong Ahafo	0.60	0.55					
	Northern	0.67	0.58					
	Total	0.60	0.51					

$p = 0.05$

The results of the test of the second hypothesis are presented in Table 4. The results indicate that principals of public CoEs in the five zones of Ghana fairly often exhibited transformational leadership style even though those in the Volta Zone recorded highest mean ( $M=2.93$ ,  $SD=0.11$ ) as compared with their counterparts in the Ashanti/Brong-Ahafo Zone ( $M=2.91$ ,  $SD=0.13$ ), Northern Zone ( $M=2.73$ ,  $SD=0.24$ ), Eastern/Greater Accra Zone ( $M=2.70$ ,  $SD=0.21$ ) and Central/Western Zone ( $M=2.63$ ,  $SD=0.28$ ). The principals, sometimes, adopted transactional leadership style with those in the Central/Western Zone ranking highest ( $M= 1.44$ ,  $SD=0.17$ ) as compared to those in the Northern ( $M=1.42$ ,  $SD=0.30$ ), Ashanti/Brong-Ahafo ( $M=1.23$ ,  $SD=0.29$ ), Volta ( $M=1.22$ ,  $SD=0.06$ ), and Eastern/Greater Accra ( $M=1.21$ ,  $SD=0.06$ ) Zones. Principals in the Volta Zone sometimes used laissez-faire leadership style ( $M=1.00$ ,  $SD=0.10$ ) as compared to those in the Northern ( $M=0.67$ ,  $SD=0.58$ ), Ashanti/Brong-Ahafo ( $M=0.60$ ,  $SD=0.55$ ), Eastern/Greater Accra ( $M=0.50$ ,  $SD=0.71$ ), and Central/Western ( $M=0.33$ ,  $SD=0.58$ ) who, occasionally, adopted laissez-faire leadership style. With the principals who occasionally used laissez-faire leadership, those in the Northern Zone rated highest as compared to those in Ashanti/Brong-Ahafo, Eastern/Greater Accra, and Central/Western ( $M=0.33$ ,  $SD=0.58$ ) Zones.

The ANOVA results, shown in Table 4, revealed that there were no statistically significant differences in the principals' use of transformational [ $F(4, 10) = 1.520$ ,  $p = 0.269$ ], transactional [ $F(4, 10) = 0.729$ ,  $p = 0.592$ ], and laissez-faire [ $F(4, 10) = 0.467$ ,  $p = 0.759$ ] leadership styles at 0.05 based on the zone of the colleges. Hence, we failed to reject the null hypothesis that there is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on the zone of the colleges is accepted. Thus, we established through our finding

that, the leadership style adopted by the principals of the Colleges is not based on the zone in which the colleges are found. This corroborates with the findings of Waters (2013) that there is no significant association between perceived leadership style and the regions (zones) in which the schools were found.

### **Results of Test of Hypothesis 3 (H0<sub>3</sub>)**

H0<sub>3</sub>: There is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on the location (rural, semi-urban or urban) of the college.

The third hypothesis sought to determine if there existed any significant difference in the leadership styles of the principals in terms of whether the college was situated in rural, semi-urban, or urban areas. The results of the test of the third hypothesis are shown in Table 5.

Table 5: ANOVA Results for Location and Leadership Styles

Leadership Styles	Location	Mean	Std. Dev.	Sum of Squares	df	Mean Square	F	Sig
Transformational	Urban	2.74	0.23	0.054	2	0.027	0.652	0.539
	Semi-urban	2.87	0.16	0.496	35	0.041		
	Rural	2.75	0.25	0.549				
	Total	2.79	0.20		37			
Transactional	Urban	1.32	0.29	0.051	2	0.026	0.434	0.658
	Semi-urban	1.31	0.16	0.710	35	0.059		
	Rural	1.08	0.18	0.761				
	Total	1.30	0.23		37			
Laissez-faire	Urban	1.25	0.71	0.267	2	0.133	0.480	0.630
	Semi-urban	1.00	0.00	3.333	35	0.278		
	Rural	1.00	0.55	3.600				
	Total	1.13	0.52		37			

$p = 0.05$

From the results in Table 5, it is realised that principals whose colleges were in urban, semi-urban and rural areas fairly often used transformational leadership style even though those in semi-urban areas ( $M=2.87$ ,  $SD=0.16$ ) rated highest as compared with principals whose colleges were in rural areas ( $M=2.75$ ,  $SD=0.25$ ) and urban areas ( $M=2.74$ ,  $SD=0.23$ ). It is also observed from the data that the principals sometimes used transactional leadership style irrespective of whether the college was in urban, semi-urban or rural areas. However, principals of public CoEs found in urban areas ( $M=1.32$ ,  $SD=0.29$ ) scored the highest mean followed by the principals of colleges in semi-urban ( $M=1.31$ ,  $SD=0.16$ ) and rural ( $M=1.08$ ,  $SD=0.18$ ) areas.

Again, principals of colleges in urban, semi-urban and rural areas sometimes exhibited laissez-faire leadership style even though those in urban areas rated highest ( $M=1.25$ ,  $SD=0.71$ ) in comparison with those in rural ( $M=1.00$ ,  $SD=0.55$ ) and semi-urban ( $M=1.00$ ,  $SD=0.00$ ) areas. The results of the one-way between groups ANOVA test conducted, as shown in Table 5, revealed that there were no statistically significant differences in the use of transformational [ $F(2, 12) = 0.652$ ,  $p=0.539$ ], transactional [ $F(2, 12) = 0.434$ ,  $p=0.658$ ] and laissez-faire [ $F(2, 12) = 0.480$ ,  $p=0.630$ ] leadership styles by the principals at 0.05 based on the location of the colleges. Hence, we failed to reject the null hypothesis that there is no statistically significant difference in leadership style of principals of public CoEs in Ghana based on location (rural, semi-urban or urban) of the college.

Through this finding, we established that the choice of leadership style by principals of public CoEs in Ghana, is not contingent on the location of the college. Our finding substantiates that of Adu, Akinloye and Olaoye (2014) who found out that there is no statistically significant difference in leadership styles of principals in rural and urban areas. However, the finding deviates from that of Scot (2008) who established a significant difference between the

perceptions of teachers on leadership styles when compared by the type of community (rural and urban) in which the schools were located.

## LIMITATIONS

This study was based on the quantitative approach to conducting research. Hence, it sought to collect and analyse numeric data to identify the leadership styles mostly used by principals in public CoEs in Ghana, and determine differences if any, in the leadership styles of the principals in terms of setting, zone and location of the colleges. With this approach, we did not explore through interviews to understand the reasons behind the principals' general dominant use of transformational leadership style as compared to transactional leadership style and laissez-faire leadership style. Again, it is ideal for quantitative surveys to make use of a relatively large sample to help in generalisation of results. In this study, the target population was forty-six (46) principals of which forty (40) principals had been at their current position for at least a year. This implied that the sample size was relatively small.

## CONCLUSIONS

The performance of any organisation, including public CoEs in Ghana, is greatly impacted by leadership styles because they are the general ways in which leaders seek to influence subordinates in order to achieve set goals. It could therefore be deduced that the success of public CoEs in Ghana is to a large extent shaped by the way the principals perceive and perform their roles, especially in the implementation of the new reforms in the Initial Teacher Education. It was established from the findings that principals of public CoEs in Ghana mostly use transformational leadership style. However, we conclude that the principals' leadership styles could not be explicitly categorised as the three leadership styles (transformational, transactional, and laissez-faire) complement each other based on the situation at hand. Again, we conclude that the leadership styles used by the principals of public CoEs in Ghana are not dependent on the setting, zone and location of the colleges.

## RECOMMENDATIONS

Based on these conclusions, we recommend that the Ghana Tertiary Education Commission (GTEC) formerly National Council for Tertiary Education (NCTE), and the Conference of Principals of Colleges of Education (PRINCOF), should liaise with universities and other recognised institutions that offer programmes in Educational Administration, Management and Leadership to offer regular professional in-service training programmes for principals of public CoEs on the appropriate leadership styles to be exhibited under different circumstances to ensure maximum productivity and achievement of college and educational goals. Again, GTEC should consider competence when selecting and appointing principals and not the setting, zone and location of public CoEs because generally, these variables did not significantly determine the leadership styles adopted by the principals.

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