RICHTMANN
P U B L I S H I N G

Research Article

Gender Perspective of Interpersonal Relationships in Pre-Tertiary Schools as a Teacher Motivator

Thomas N. Tindan[1*]

Moses A. Abubakari[1]

Victor Antwi[2]

Philip Dorsah[1]

Dennis Offei Kwakye[3]

[1]*Department of Science Education,*
C. K. Tedam University of Technology and Applied Science,
Navrongo, Ghana
[2]*Department of Physics Education,*
University of Education,
Winneba, Ghana
[3]*Department of Mathematics and ICT Education,*
C. K. Tedam University of Technology and Applied Science,
Navrongo, Ghana
*Corresponding Author

Abstract

Teachers are motivated by a variety of variables while they carry out their employment. However, the expected impact on teacher motivation has not been achieved as a result of the economic reasons. Numerous studies have demonstrated that social elements, such as satisfying interpersonal interactions, can spur people to pursue and accomplish a goal. But there has been a lot of silence over how this varies by gender. This made it necessary to conduct research to determine how interpersonal interactions (IR), specifically those between teachers and students, teachers and other teachers, and teachers and heads of schools in Ghana's Upper East Region (UER), affected teachers' motivation. A cross-sectional survey study design was used, and the data collection process used a mixed technique approach. Teachers at pre-tertiary institutions in UER in Ghana are the target demographic. 831 female and 1,719 male instructors from the area made up the sample. The data was gathered using a teacher motivation scale comprising 4 Likert scale questions and an interview schedule for focus group discussions. The findings demonstrated that interpersonal interactions at school (TP, TT, and TH) influence how instructors in pre-tertiary institutions in Ghana's Upper East Region (UER) carry out their duties, with TT offering the greatest incentive and TH the least. Although IR generally has no association with gender, Pearson's chi-square study revealed that TT as a teacher motivator is associated to gender. To encourage male and female teachers to fulfil their jobs, it is important to foster positive interpersonal interactions at pre-tertiary institutions. Being able to establish close relationships with one's co-workers is key to enjoying one's job as a teacher. Therefore, it is crucial that educators work hard to cultivate good relationships with their colleagues.

1. Introduction

A person's natural behaviour pattern that propels them to achieve a goal is known as motivation. Any complex task's success or failure can be explained by one's motivation (Czubaj, 1996, as cited in Tindan, 2021). How people decide to do or not do various activities depends on their motivation. Motivation decides how hard and for how long one will continue doing what he or she has decided to do. A significant aspect in the teacher's performance is his level of motivation (Dornyei, 2001, as cited in Tindan, 2021).

In their study, Wanakacha, Catherine, and Aloka (2018) came to the conclusion that gender differences have little bearing on teachers' intrinsic motivation to carry out their primary duties. The motivation of a female teacher would be no different from a male teacher if interpersonal relationships in the classroom were considered an extrinsic element. Bilali (2013) also discovered that the levels of self-efficacy among male and female teachers were comparable. According to the study, there was no discernible difference in self-efficacy levels between genders, meaning that both male and female teachers had comparable levels.

The study's goal was to ascertain the impact that interpersonal interactions (TP, TT, and TH) in pre-tertiary schools had on teachers' motivation to carry out their duties. And if there is a gendered connection to the effect. The null hypothesis states that there is no discernible difference between the motivation of male and female teachers at pre-tertiary institutions when it comes to the impact of interpersonal connections.

2. Literature Review

In the modern era, gender inequality has been a significant political concern. This is specifically in reference to the challenges faced by women. There has been a significant improvement in education in a number of sectors. Compared to 50 years ago, younger women are far more likely to have finished a tertiary education (OECD, 2004). In 18 of the 30 similar OECD nations, more women aged 25 to 34 than women aged 55 to 64 had finished postsecondary education. Additionally, in 21 of the 27 OECD nations where data was comparable, the graduation rates for women were either equal to or higher than those for men (OECD, 2004).

However, there are still significant gender discrepancies in tertiary qualifications in the fields of mathematics and computer science. In the OECD countries, the average number of women with degrees in mathematics and computer science in 2004 was only 30 (OECD, 2004). In all of the participating countries, females outperformed males in reading on average. In several nations, the discrepancy was equivalent to half or more of a skill level. In mathematics and science, the opposite was true (OECD, 2004). For 8 of the 26 nations studied in science, it was the case. For 16 of the 26 countries, it applied to mathematical literacy.

Overall, PISA 2018 found comparable outcomes. In reading, women outperform men greatly, whereas in science and mathematics, men outperform women in some nations. The nation with the lowest performance gaps between males and females across all domains was Peru, which topped the list. Colombia, Mexico, and China are the next three in line. For the other nations, such Qatar, the UAE, and Saudi Arabia, the discrepancies are more pronounced (OECD, 2019).

In general, it has been discovered that girls are much better readers than boys, although boys are significantly superior than girls in math and science, all other things being equal. It was concluded that disparities in reading, as girls are noticeably better readers than boys, account for the largest portion of the overall difference between males and females in each country in the three skill categories. These conclusions are supported by a PISA 2018 individual student data analysis (OECD, 2019).

In primary schools, the proportion of female instructors varies greatly amongst developing nations. Sub-Saharan Africa has the lowest levels and Latin America has the highest. Within sub-Saharan Africa, there is also a great deal of variance between individual nations. Mulkeen and Chen

(2008) estimated that more than 70% of teachers were female in rural Mozambique and Lesotho. However, there were fewer female teachers in rural schools in Tanzania and Uganda. But as more women benefit from secondary and higher education, the proportion of female instructors has generally tended to rise over time. Somehow, it was thought that educated women should work as teachers. Due of its prominence, security, and short working hours, this was done well before other modern sector positions (Cummings, 1990). The following details about the gender distribution of teachers were provided by OECD (2020).

Figure 1: Distribution of Teachers by Gender

Region	Distribution of Teachers (%)	
	Male	Female
OECD Countries	31	69
Non-OECD Countries	30	70
Average	30.5	69.5

It was not through lack of motivation on the side of female teachers that men outnumbered women in the teaching profession in Ghana. However, as Bame (1991) hypothesized in his research of Ghanaian elementary school teachers, there may be fewer women recruited into the teaching profession as a result of the gender imbalance. This is partly a result of the opposition to girls' education and the dearth of female candidates for professional training. In addition, when they get married, women also leave their profession. Parents with higher levels of education and social standing are more likely to approve of their daughters attending school. As a result, it has been found that female teachers are more likely than their male colleagues to come from higher socioeconomic backgrounds, and that their parents are more likely to have advanced degrees and to work in highly skilled and professional fields. This indicates that educated women view teaching in a different way than their male counterparts. But this impression is disappearing. It is known that a country's cultural background is intimately related to the patterns of deployment of female teachers. Therefore, it is typical to mention gender as a theme around which educational settings and challenges should be developed. Gender is taken into consideration while evaluating the qualifications of certified and untrained persons as teachers.

According to Pryor, Ampiah, Aidoo, Boadu, Opoku-Darku, Burkle, and Meredith (2003), a female teacher who decided to transfer from an urban setting to a primary school in rural Ghana later regretted the decision and lost motivation since the students were less receptive to her instruction. According to a female teacher who participated in a Tindan (2021) study on how their relationship with the headteacher affected their motivation:

> *Sometimes [when] we [are] short food in the house, he [the headteacher] supports us. At times, he talks to us like our colleague. He doesn't bring himself high where you cannot approach him with your problems. If you have problems, you can meet him and talk to him like a colleague without fear ... Sometimes, when we are with him, we just play like small children. So, he is a good leader.*

Such an experience will possibly engender motivation of the teacher.

Croatian teachers' and students' interpersonal relationships were studied as part of the scientific project "The Curriculum of Social Competences and Relations in School" (Opic, 2016). It was determined that there is a difference in the assessment of the quality of their interpersonal ties using a sample of 432 instructors from 20 towns, 35 primary schools in the Republic of Croatia, and 432 students. Although overall student-teacher interpersonal interactions are at a generally desirable level, students continue to assess these relationships less favourably than their teachers. Due to latent dimensionality, a factor questionnaire structure (14 variables; ordinal type) was employed to identify the two main components (subscales): rough verbal and physical treatment and didactic assistance and interaction. There were no gender differences between male and female teachers in the

evaluation of the effectiveness of their interpersonal interactions with students, according to the research's differential draft (on two subscales).

Students socialize with one another and develop bonds with their professors in every classroom. The encounters could motivate the teacher to perform worse or better. Teachers have an impact on pupils both directly via their interactions with them and indirectly by how the classroom is set up (McCallum & Bracken, 1997). The teacher has a significant impact on whether or not students feel cared for in class (Osterman, 2000). According to research, adolescents gain socially and psychologically when they have supportive ties with their teachers (Resnick, et al., 1997, cited in Oman, Tolma, Vesely, & Aspy, 2013). It's possible that students' perceptions of supportive and caring professors are merely a proxy for their psychological health (Wentzel, 1998). Relationships with instructors can therefore be especially crucial for young adolescents who are going through substantial changes in their sense of self and are finding it difficult to deal with altering relationships with their parents and peers (Resnick, et al., 1997 cited in Oman, Tolma, Vesely & Aspy, 2013). According to research by Davis (2003), even for middle school pupils, supportive and pleasant teacher-student connections are still crucial and help predict positive behavioural outcomes. Teachers who don't care are characterized by students as those who don't offer additional assistance, guidance, or encouragement. According to Wentzel (2003), children' transition to school has been favourably correlated with their liking of their teachers. Despite the fact that teachers are rarely mentioned by adolescents as having a substantial or vital influence on their life, adolescents frequently rate teachers as offering assistance and advice, but only as a secondary source after parents and peers (Furman & Buhrmester, 1992). (Wentzel, 1997). None of the aforementioned research revealed any gender differences in their conclusions.

Adolescent girls typically score higher in interpersonal relationships than boys, regardless of gender (Rudolph, 2002). This is due to girls' propensity to cherish close connections, rely on relationships as resources, and worry about sustaining harmonious relationships (Benenson, 1990; Maccoby, 1990). According to Morris, Steinberg, Sessa, Avenevoli, Silk, and Essex (2002), boys and girls may express equivalent levels of connection to and conflict with their parents. One the one hand, girls and boys have quite distinct interactions with their fathers and mothers, according to Collins and Russell (1991). Particularly emotional blandness and little connection are characteristics of father-daughter relationships (Smollar, & Youniss, 1985). In contrast, boys rely on their fathers for support more often than girls do. However, there are no gender disparities in the connections between mothers and adolescents generally. In terms of sibling relationships, girls are more likely than boys to perceive sibling conflict and struggle with retreat (Liu & Chao, 2005). Additionally, peer relationships and teacher-student interactions have been linked to gender disparities (Wentzel, 1997). (Palmqvist & Santavirtab, 2006). Compared to boys, girls had more conversations with friends about personal and non-personal topics. According to Miller et al. (2000), boys are more likely than girls to experience psychosomatic symptoms while under stress connected to problems with classmates at school.

Contrarily, research findings also demonstrate that girls are more protected than males against emotional challenges like sadness and loneliness by adaptive characteristics of peer connections, such as perceived peer relationships and positive friendship qualities (Oldenburg & Kerns, 1997; Rudolph, 2002). These conclusions might not agree with one another, but they suggest that gender may act as a moderator between social interactions and psychosomatic symptoms. According to the findings of the study by Oldenburg and Kerns (1997), gender can moderate the association between psychosomatic symptoms and both the mother-adolescent relationship and the teacher-student relationship. According to earlier studies, mothers who are also caretakers connect with highly reactive sons and daughters in qualitatively different ways (Liu & Chao, 2005). According to the findings, teenage girls report having better relationships with their mothers than do teenage guys. During adolescence, a mother and daughter's relationship must be solid. When girls experience a nurturing mother-adolescent relationship, they experience fewer psychosomatic illnesses than boys. In contrast, there is no gender difference in the association between psychosomatic symptoms and

father-adolescent relationships, suggesting that both boys and girls have similar views of the father-adolescent relationship and that it has a similar impact on psychosomatic symptoms for both. As the author has already mentioned, in Chinese society, the father typically offers both material and financial support. Male and female teenagers both acquire another source of support whenever they notice that their father gives them more time and affection. The interplay between gender and the teacher-student relationship is also important. According to the findings, teenage girls reported having better interactions with teachers than did teenage boys. This study discovered gender inequalities for respondents' reported relationships with their teachers, which is in line with Wentzel's (1997) findings. Boys are less likely than females to feel like they belong at school, according to (Wentzel & Caldwell, 1997).

3. Methodology

A cross-sectional survey was used in the study. The collecting of data using a mixed technique approach. This method encourages innovation, inventiveness, and unconventional thinking when determining the root of a problem. This is because, unlike in experimental research, no independent variable is altered in order to evaluate causation. In contrast, there is a statistical baseline and certain interventions that happened organically under the best circumstances (MacDonald and Headlam, 2009). Like, in this social motivation approach to teacher motivation, there is the motivational levels of teachers and interpersonal relationship.

3.1 The Population

Public pre-tertiary school teachers in Ghana's Upper East Region were the study's target demographic. According to secondary information obtained from the Regional Education office, there are around 8,423 instructors working in pre-tertiary institutions throughout the region. The population that was reachable consisted of this.

3.2 Sample Size Determination

Table 1 displays the total number of schools sampled. Quotas were employed to sample the schools from the electoral districts that served as the clusters. The schools in each district (cluster) were thoroughly sampled (according quotas). From the chosen schools, a census sample of the teachers was taken. The sample size and the population that is available are shown in Table 1.

Table 1: Population and Sample Size

S/No.	Institution	Population of schools in the region	Population of teachers in the region	Number of schools sampled	Number of teachers sampled (sample size)
1	Primary	630	4,709	100	418
2	JHS	332	2,647	100	453
3	SHS	30	1,067	26	337
	Total	992	8,423	226	1,208

Probabilistic and non-probabilistic procedures were employed in sample selection.

Primary schools (PS) in the districts were chosen proportionately and by random sampling. Districts in the area were used to group the schools initially. The following percentage was then used to determine the districts' quotas: number of districts with specified schools,

$n = \frac{226}{992}$ *x total number of primary schools in the district.*

i To produce the results in the column for "Number of schools sampled" in Table 1, the data

were then rounded up to the nearest whole number.

ii   The junior high schools (JHS) were selected purposively. Every JHS attached to a PS that was selected was also selected. Others were selected by convenience (say, the JHS nearest to the selected PS; if the selected PS did not have a JHS attach to it) to make up the number.

iii   The senior high schools (SHS) in the districts were selected by census. Only twenty-six (26) (out of 30) SHSs in the UER responded to the study.

iv   That made the total to be two hundred and twenty-six (226) schools (100 primary schools (PS) + 100 junior high schools (JHS) + 26 senior high schools (SHS)).

v   The teachers in the selected schools were selected by census. In total, one thousand, two hundred and eight (1,208) teachers (534 female and 1,036 male) were sampled from among the 226 schools according to the distribution shown in Table 1.

3.3   Instrument

A close-ended four rated Likert scale questionnaire was employed. The questions requested that they rate the three types of interpersonal relationships

➢ teacher-pupil interpersonal relationship (TP),
➢ teacher-teacher interpersonal relationship (TT), and
➢ teacher-headteacher interpersonal relationship (TH),

in terms of how much motivation they receive from them. The ratings were

1   = highly motivating
2   = motivating,
3   = unmotivating, and
4   = highly unmotivating.

To learn more about how interpersonal interactions in the school impacted the motivation of a sample of 11 instructors, focus group interviews were conducted afterwards. Additionally, they gave the three different interpersonal interactions a motivational level ranging from 0% to 100%.

4. Results and Discussion

Table 2 is a contingency table regarding IR as a teacher motivator with regard to "Gender" in pre-tertiary schools. For TP, TT, and TH, the proportion of pre-tertiary teachers in both cycles who indicated that IR motivates them is listed. According to the data, IR inspires instructors of both sexes, with a mean response of 74.8% for female teachers and 76.8% for male teachers. The highest percentage of instructors, 85.0% for female teachers and 85.7% for male teachers, are motivated by TT. The least number of instructors are motivated by TH (58.6% of female teachers and 63.8% of male teachers). Given the observed Pearson chi-square value, the mean difference is not related to gender differences (χ_o^2 = 2.25) is below the anticipated chi-square value (χ_e^2 = 5.99) at (3-1) (2-1) = 2 degrees of freedom (*df*) and an $\alpha = 0.05$ significance level. That is, $\chi_o^2 < \chi_e^2$. In general, IR has no gender-specific effects on the motivation of pre-tertiary school instructors.

Table 2: IR as a teacher motivator in pre-tertiary schools with respect to 'Gender'

S/No.	Interpersonal Interrelationship (IR)	Gender	
		Female (%)	Male (%)
1	Teacher-teacher (TP)	80.7	80.5
2	Teacher-pupil (TT)	85.0	85.7
3	Teacher-headteacher (TH)	58.6	63.8
	Means	74.8	76.7
Pearson χ^2: Observed, χ_o^2 =2.25 Expected, χ_e^2 =5.99			

The information in Tables 3 through Table 5 was obtained through a cross-tabulation of interpersonal connections, IR (TP, TT, and TH), with "Gender."

4.1   Teacher – pupil interpersonal relationship (TP) as teacher motivator and gender

Table 3: Crosstab of Teacher – Pupil Interpersonal Relationship (TP) as a teacher motivator in pre-tertiary schools with respect to 'Gender' and cycle of school

Gender	Motivation	1st Cycle		2nd Cycle		Total
		Frequency	%	Frequency	%	
Female	UM	82	20.1	21	16.8	103(19.3%)
	M	327	79.9	104	83.2	431(80.7%)
	Total	409		125		534
	Pearson χ^2: Observed, $\chi_o^2 = 4.84$			Expected, $\chi_e^2 = 3.84$		
Male	UM	139	18.6	96	20.6	235(19.5%)
	M	608	81.4	365	79.4	973(80.5%)
	Total	747		461		1,208
	Pearson χ^2: Observed, $\chi_o^2 = 1.5$			Expected, $\chi_e^2 = 3.84$		
Total Pearson χ^2: Observed, $\chi_o^2 = 2.58$			Expected, $\chi_e^2 = 3.84$			

Table 3's cross-tabulation reveals that 79.9% of female teachers in first cycle schools—primary and junior high schools—and 83.2% of female teachers in second cycle schools—senior high schools—responded that they were motivated by TP. Female instructors in second cycle schools are more likely to be motivated by TP than female teachers in first cycle schools. The observed chi-square of $\chi_o^2 = 4.84$, which is greater than the expected chi-square of $\chi_e^2 = 3.84$, at degree of freedom, $df = (2\text{-}1)\,(2\text{-}1) = 1$, and a significance level of $\alpha = 0.05$, indicates that the difference is school related and not by chance.

For the male teachers, TP was cited as their primary source of motivation by 81.4% of first-cycle teachers and 79.4% of second-cycle instructors. The observed chi-square, $\chi_o^2 = 1.50$, is less than the expected chi-square of $\chi_e^2 = 3.84$. Thus, the difference is not school related. It is by chance.

However, in both first and second cycle schools, 80.7% of female instructors are driven by TP. While TP motivates 80.5% of male teachers in first and second cycle schools. The observed chi-square, $\chi_o^2 = 2.58$, is less than the expected chi-square of $\chi_e^2 = 3.84$. Thus, the difference is not gender related. It is by chance.

In a focus group discussion about the interpersonal relationships between teachers and students, a female teacher made the following comment,

… you see, we don't teach because of money per se. We love the students, and we will be happy to see they have acquired the necessary skills and knowledge that will make them contribute well to national development tomorrow.

A male teacher also added thus:

If not because we love the children it was better to go and farm. Because farming, you can get more money for yourself. And you will not also be hungry.

Some educators claimed that seeing an improvement in their students' performance inspired them. They discussed the positive relationship between the teacher and students/pupils in the classroom while citing their justifications. They discovered a clear connection between good student behavior and good interpersonal relationships at school, particularly between teachers and students and students. a female educator remarked,

Good interpersonal relationship with students makes you satisfied with your job. It makes you work

better. Students who interact freely with teachers motivate the teachers. When students can come close to the teachers to even present their problems to you, it makes you feel responsible to them and you will do more to help them. This also makes them perform better. They see you as their parent.

4.2   Teacher – teacher interpersonal relationship (TT) as a teacher motivator and gender

Table 4: Crosstab of Teacher – Teacher Interpersonal Relationship (TT) as a teacher motivator in pre-tertiary schools with respect to 'Gender' and cycle of school

Gender	Motivation	1st Cycle		2nd Cycle		Total
		Frequency	%	Frequency	%	
Female	UM	59	14.4	21	16.8	80(15.0%)
	M	350	85.6	104	83.2	454(85.0%)
	Total	409		125		534
	Pearson χ^2: Observed, $\chi_o^2 = 2.06$			Expected, $\chi_e^2 = 3.84$		
Male	UM	101	13.5	71	15.4	172(14.2%)
	M	646	86.5	390	84.6	1,036(85.8%)
	Total	747		461		1,208
	Pearson χ^2: Observed, $\chi_o^2 = 2.36$			Expected, $\chi_e^2 = 3.84$		
Total Pearson χ^2: Observed, $\chi_o^2 = 4.67$			Expected, $\chi_e^2 = 3.84$			

Table 4 reveals that for the first cycle schools, a positive teacher-teacher interpersonal relationship (TT) motivates female teachers by a responds rate of 85.6%. And for the second cycle schools, 83.2% female teachers responded that they were motivated by TT. The observed chi-square value of $\chi_o^2 = 2.06$, which is less than the expected chi-square value of $\chi_e^2 = 3.84$, shows that even though TT seem motivate female teachers in first cycle schools more than female teachers in second cycle schools, the difference is not level of school related. It is by chance.

With respect to male teachers, 86.5% of male teachers in first cycle schools are motivated by TT, while 84.6% of male teachers in second cycle schools are motivated by TT. The observed chi-square value of $\chi_o^2 = 2.36$, which is also less than the expected chi-square value of $\chi_e^2 = 3.84$, demonstrates that, despite the fact that male instructors in first cycle schools seem to be more motivated by TT than male teachers in second cycle schools, the difference is not caused by the level of the school. It just so happens.

However, fewer female teachers (85.0%) than male teachers (85.8%) are often motivated by a positive teacher-teacher interpersonal interaction in both first and second cycle schools. The chi-square values here indicate that there is a correlation between gender and the interpersonal relationships between teachers as a teacher motivator $\chi_o^2 = 4.67$ is greater than $\chi_e^2 = 3.84$. It is not by chance.

One teacher talked about the benefit of teacher-teacher interpersonal relationship thus:

Teacher-teacher interpersonal relationship motivates. It leads to support for one another. Say in financial support. A colleague teacher can assist you with money to solve your problem. In subject delivery. If you find a topic difficult for you to handle in your class, you ask a colleague teacher who is good in that topic to help teach the topic in your class for you. And even in solving students' questions. That motivates teachers to work better. There is team work, there is confidentiality and there is support.

4.3   Teacher – headteacher interpersonal relationship (TT) as a teacher motivator and gender

Table 5: Crosstab of Teacher – Headteacher Interpersonal Relationship (TH) as a teacher motivator in pre-tertiary schools with respect to 'Gender' and cycle of school

Gender	Motivation	1st Cycle		2nd Cycle		Total
		Frequency	%	Frequency	%	
Female	UM	183	44.7	38	30.4	221(41.4%)
	M	226	55.3	87	69.4	313(58.6%)
	Total	409		125		534
	Pearson χ^2: Observed, $\chi_o{}^2 = 11.326$			Expected, $\chi_e{}^2 = 3.84$		
Male	UM	296	39.6	141	30.6	437(36.2%)
	M	451	69.4	320	69.4	771(63.8%)
	Total	747		461		1,208
	Pearson χ^2: Observed, $\chi_o{}^2 = 11.506$			Expected, $\chi_e{}^2 = 3.84$		
Total Pearson χ^2: Observed, $\chi_o{}^2 = 23.95$			Expected, $\chi_e{}^2 = 3.84$			

Table 5 also reveals that a positive teacher-headteacher interpersonal relationship (TH) affect the motivation of pre-tertiary school teachers positively. Less female teachers (55.3%), are motivated by TH in the first cycle schools than in the second cycle schools (69.4%). The observed chi-square, $\chi_o{}^2 = 11.33$; and the expected chi-square, $\chi_e{}^2 = 3.84$. That is, $\chi_o{}^2 > \chi_e{}^2$. Thus, the effect of TH on the motivation of female teachers in first and second cycle schools is truly different, and not by chance. TH affect the motivation of female teachers in second cycle schools better than female teachers in first cycle schools.

For their male counterparts, TH motivates 69.4% of them in first cycle schools and a 69.4% in second cycle schools. With $\chi_o{}^2 = 11.51$, and $\chi_e{}^2 = 3.84$, that is, $\chi_o{}^2 > \chi_e{}^2$, this sameness is not by chance; but level of school related.

For both first and second cycle schools combined, a positive teacher-headteacher interpersonal relationship (TH) motivates 58.6% of female teachers and 63.8% of male teachers in the execution of their duties. With $\chi_o{}^2 = 23.95$, and $\chi_e{}^2 = 3.84$, that is, $\chi_o{}^2 > \chi_e{}^2$, this difference is not by chance but indeed TH motivates more male teachers in pre-tertiary schools than female teachers. The effect of TH as a motivator of pre-tertiary school teachers in the Upper East of Ghana is gender related.

A male instructor at a senior high technical school claimed that because of the headmaster and him self's cordial connection, he wouldn't do anything that may jeopardize the goals and policies of the institution. As a result of the friendly relationship, he had with the headmaster, he gives his school duties a little more of his all. During a focus group session, the teachers mentioned that having a good working relationship with the headmaster enhances their morale.

5. Conclusions and Recommendations

The following conclusions are drawn from the findings of the study:
i.   TP motivates a higher proportion of female teachers in second cycle schools than the female teachers in first cycle schools. And the difference is related to the level of school.
ii. TP motivates a higher proportion of male teachers in first cycle schools than the male teachers in second cycle schools. But the difference is not related to the level of school.
iii. TT motivates a higher proportion of female teachers in first cycle schools than the female teachers in second cycle schools. The difference is not level of school related.
iv. TT motivates a higher proportion of male teachers in first cycle schools than the male teachers in second cycle schools. The difference is not school related.
v.   TH motivates a higher proportion of female teachers in second cycle schools than female teachers in first cycle schools. And the difference is school related.

vi.   TH motivates the same proportion of male teachers in first cycle schools as the male teachers in second cycle schools. The sameness is not by chance, but school related.

vii. Slightly higher proportion of female teachers in pre-tertiary schools are motivated by TP than their male counterparts. The difference is not gender related.

viii. Slightly fewer proportion of female teachers in pre-tertiary schools are motivated by TT than their male counterparts in pre-tertiary schools. The difference is gender related.

ix.   Fewer proportion of female teachers in pre-tertiary schools are motivated by TH than their male counterparts in pre-tertiary schools. The difference is gender related.

x.   Among the three IRs (that is, TP, TT and TH), TT motivates teachers in pre-tertiary schools most; with the female teachers being the most affected.

Pre-tertiary teachers in Ghana's Upper East Region are typically motivated by strong interpersonal ties. Although male teachers in pre-tertiary institutions are more likely than female teachers to be driven by a satisfying interpersonal relationship, the difference is not due to gender. Positive interpersonal ties in pre-tertiary schools have no relation to gender in terms of their impact on teachers' motivation.

The study's conclusions support the idea that improving teacher morale can be achieved through fostering positive interpersonal ties in classrooms. It is crucial that teachers of all genders, particularly male and female ones, are not viewed differently when it comes to promoting interpersonal relationships in the classroom because the study demonstrates that interpersonal relationships serve as a teacher motivator in pre-tertiary schools regardless of gender in most cases.

According to research, pre-tertiary instructors are most motivated by their colleagues' interpersonal ties, which suggests that teachers should make an effort to get along well with one another for everyone's sake. The key to loving their job as teachers is their capacity to establish close relationships with their co-workers. The only people who truly comprehend the difficulties of the job are the co-workers. These same individuals will continue to exist long after the students have graduated. Therefore, it is imperative that teachers actively work to build good relationships with their colleagues.

References

Bame, K. N. (1991). Teacher Motivation and Retention in Ghana: The Professional Teacher in Africa. University Press.

Benenson, J. F. (1990). Gender differences in social networks. The Journal of Early Adolescence, 10(4), 472–475. https://doi.org/10.1177/0272431690104004

Bilali, O. (2013). Teaching Efficacy to Student Teachers in the Faculty of Education, Elbasan Albania. Journal of Educational and Social Research, 3(1), 179–185. https://doi.org/10.5901/jesr.2013.v3n1p179

Collins, W. A., & Russell, G. (1991). Mother-child and father-child relationships in middle childhood and adolescence: A developmental analysis. Developmental Review, 11(2), 99–136.

Liu, T. L., & Chao, H. L. (2005). The relationships between perceived systemic family violence and children's problematic behaviors. Bulletin of Educational Psychology, 37, 197–214.

Maccoby, E. E. (1990). Gender and relationships. A developmental account. The American Psychologist, 45(4), 513–520. https://doi.org/10.1037/0003-066X.45.4.513

MacDonald, S., & Headlam, N. (2009). Research Methods Handbook: Introductory Guide for Social Research. Centre for Local Economic Strategies (CLES). https://cles.org.uk/publications/research-methods-handbook/

McCallum, R. S., & Bracken, B. A. (1997). Interpersonal relations between school children and their peers, parents, and teachers. Educational Psychology Review, 5(2), 155–176. https://doi.org/https://doi.org/10.1007/BF01323158

Miller, J., Bland, N., & Quinton, P. (2000). The Impact of Stops and Searches on Crime and the Community. In C. F. Willis (Ed.), Police Research Series (Vol. 127). Policing and Reducing Crime Unit Research, Development and Statistics Directorate. https://www.researchgate.net/publication/265004960%0D

Morris, A. S., Steinberg, L, Sessa, F. M., Avenevoli, S., Silk, J. S., & Essex, M. J. (2002). Measuring children's perceptions of psychological control: Developmental and conceptual considerations. In B. K. Barber (Ed.), Intrusive parenting: How psychological control affects children and adolescents (pp. 125–259). American Psychological Association. https://doi.org/10.1037/10422-005

OECD. (2004). Education at a Glance 2004. OECD Publishing. https://doi.org/https://doi.org/10.178/eag-2004-en

OECD. (2019). PISA 2018 Results (Volume II): Where All Students Can Succeed. PISA, OECD Publishing. https://doi.org/10.1787/b5fd1b8f-en.

Oldenburg, C.M., & Kerns, K. A. (1997). Associations between peer relationships and depressive symptoms: Testing moderator effects of gender and age. Journal of Early Adolescence., 17(3), 319–337. https://doi.org/10.1177/0272431697017003004

Oman, R.F., Tolma, E. L., Vesely, S. K., & Aspy, C. B. (2013). Youth gender differences in alcohol use: A prospective study of multiple youth assets and the neighborhood environment. Open Journal of Preventive Medicine, 3(1), 219–228. https://doi.org/10.4236/ojpm.2013.32030

Opic, S. (2016). INTERPERSONAL RELATIONS IN SCHOOL. International Journal of Cognitive Research in Science, Engineering and Education, 4(2), 9–22. https://doi.org/. doi:10.5937/IJCRSEE1602009O

Osterman, K. F. (2000). Students' Need for Belonging in the School Community. Review of Educational Research, 70(3), 323–367. https://doi.org/10.3102/00346543070003323

Palmqvist, R., & Santavirtab, N. (2006). What friends are for: The relationships between body image, substance use, and peer influence among Finnish adolescents. Journal of Youth and Adolescence, 35, 192–206.

Pryor, J., Ampiah, J. G., Aidoo, F., Boadu, K., Opoku-Darku, E., Burkle, M., & Meredith, S. (2003). UNDERSTANDINGS OFEDUCATION IN ANAFRICAN VILLAGE:the Impact of Information andCommunication Technologies.

Rudolph, K. D. (2002). Gender differences in emotional responses to interpersonal stress during adolescence. Journal of Adolescent Health, 30(4), 3–13. https://doi.org/10.1016/S1054-139X(01)00383-4

Smollar, J., & Youniss, J. (1985). Parent-Adolescent Relations in Adolescents Whose Parents are Divorced. The Journal of Early Adolescence, 5(1). https://doi.org/10.1177/0272431685051011

Tindan, T. N. (2021). Motivation, Interpersonal Relationships and Performance of Pretertiary School Teachers in the Upper East Region. Institute of Technology and Development Management (IDTM). https://library.ucc.edu.gh

Wanakacha, C. K., & Aloka, P. J. O. (2018). Gender Differences in Motivation and Teacher Performance in Core Functions in Kenyan Secondary Schools. Academic Journal of Interdisciplinary Studies, 7(1), 89–95. https://doi.org/Doi: 10.2478/ajis-2018-0009

Wentzel, K. R., & Caldwell, K. (1997). Friendships, peer acceptance, and group membership: Relations to academic achievement in middle school. Child Development, 68(6), 1198–1209.

Wentzel, K. R. (1998). Social Relationships and Motivation in Middle School: The Role of Parents, Teachers, and Peers. Journal of Educational Psychology, 90(2), 202–209. https://doi.org/10.1037/0022-0663.90.2.202

Wentzel, K. R. (2003). A full appreciation of why students display positive classroom behavior requires an understanding of students' personal goals, as well as the degree to which these goals are valued by teachers and peers. A caring classroom environment in which teachers an. Theory into Practice, 42(4), 319–326. https://www.jstor.org/stable/1477395