

Challenges Faced By Administrators In Managing Schools With More Female Than Male Teachers: A Case Study

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Abstract

This research was aimed at exploring the challenges faced by administrators in managing schools with more female than male teachers. The research sought to answer three questions as follows: (1) what challenges do administrators face in managing schools with more female than male teachers? (2) What relationship is there between the number of female teachers and the academic performance of learners? (3) What should be done to mitigate the identified challenges? To answer the research questions, the researcher used a semi-structured questionnaire to collect data from 12 schools drawn purposively from a target population of 24 schools. The research followed a case study design and employed a mixed method to analyse the data. The results of the study reveal that school administrators face challenges in managing schools with more female than male teachers. The challenges identified are teacher absenteeism, teacher late reporting for work, poor learner academic performance, use of abusive language and beating learners, and human resource planning. Further, the results show that there is a relationship between the number of female teachers and academic performance of learners in the period 2015 to 2018.

In Zambian societies, there are inequalities in the distribution of roles between women and men. Some of the inequalities are caused by traditional or cultural beliefs, while others are natural. Under traditional or cultural causes, historically it is believed that there are some roles which can only be performed by women and vice versa. The roles that pertain to women include, but not limited to, babysitting, home cleaning, cooking, laundry, taking care of the sick, and weeding in the fields. The natural causes have to do with the biology of the women and men; which do not change, as opposed to the social roles that the women and men are required to play. The inequalities in the roles that women and men play in society have a bearing on their education.

Historically, women were taught how to become better mothers and wives, therefore, they concentrated on the home economics and social etiquette training. The educational resources were made available for boys' education and not the girls' education. The rationale to the imbalance was that the girls would be eventually married off and the husbands would look after them.

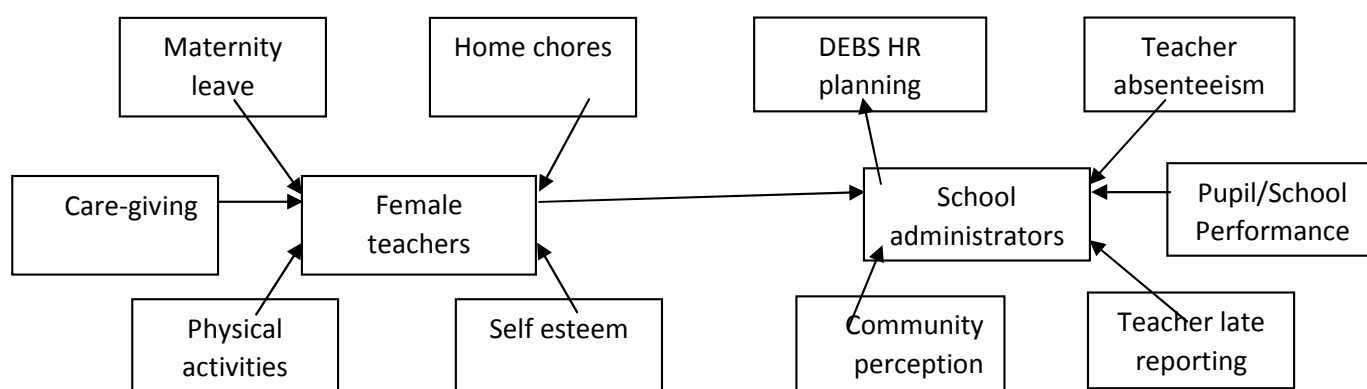
Gender differences in educational provision and achievements had their origin in the BSA Company period. The early missionaries who were involved in the evangelical work were men. However, this did not exclude women, they participated in the work. The importance of commitment to the education of women and girls was acknowledged early among Missionaries.

Katondwe, a diarist who was working among the Catholics in 1915 wrote that: (Carmody 2004).The education of women, which has been neglected with the result that children, when they leave the neighborhood, forget even that they were baptized, we have often heard that the woman is slave to the man, here it is quite the opposite. She is consulted in everything, from travel to baptism to attendance at school. The woman has great influence, and as she, so are the children. For this sisters are needed (p.115).

The imbalance on education opportunities between females and males, however, in current Zambia is reduced through interventions such as the Program for the Advancement of the Girls’ Education (PAGE) and the Forum for African Women Educationists of Zambia (FAWEZA), to an extent that some schools have ended up having more female than male teachers. This motivated the researcher to explore the challenges faced by administrators in managing schools with more female than male teachers. Despite the increased number of female teachers in the work place, little, if any research has been done to explore the challenges administrators have in managing schools that have more female than male teachers.

Even though female teachers may advance in their education, traditional and cultural norms still affect them. Female teachers are also affected by their biological make-up; though they may have no control over it. Some of the biological issues female teachers experience may negatively affect their self-esteem. Female teachers may also be affected by child bearing, such that they may require taking maternity leave during the school term. Sometimes though they may be present at work, female teachers may be limited in handling some subjects that involve physical activities, for example, sports and exercises. Female teachers may be deeply involved in exhaustive home chores at the expense of their teaching careers. They are care-givers in the home; which may make them inconsistent at their place of work. The research would help understand if having more female than male teachers at one school posed challenges to school administrators. It also was to help the DEBS office know if gender balance had an impact on learner academic performance. Further, the research would help suggest possible solutions to mitigate the effects of having more female than male teachers at one school.

The researcher conceptualizes the research problem as follows:



The conceptual framework comprised two sides, left and right. The left side showed factors that are intrinsic to the female teacher, while the right side showed factors that were conceptualized to affect the administrators as a result of the factors on the left.

Maternity leave: Female teachers in child bearing age have to go on maternity leave once in every two or three years for a period not less than three months each. The school

administrator cannot regulate the time each female teacher falls pregnant and delivers; therefore, there is likelihood that more than one teacher will go on maternity leave at the same time.

Home chores: Under the Zambian tradition, women spend much time doing home chores; which are quite exhausting. Home chores also cause female teachers to experience emotions such as bad moods; which do not only affect their performance in class but may also affect their health.

Physical activities: Female teachers may have limitations in physical education objectives such as training learners in physical activities including ball games and other field events.

Self-esteem: Teachers play a key role in helping learners develop positive self-esteem and self-confidence. Teachers can either influence the learners positively or negatively, therefore, the teacher's self-esteem matters. A person of worth can influence the way another person organize his or her life (Crocker, J., & Park, L. E., 2003).

Family Care-giving: Women spend a lot of time taking care of the sick, elderly parents, dependants and children in the home which may conflict with their careers. Female teachers are not spared from this societal role.

This research followed a Case Study design. This design was chosen due to its applicability to the generated data, its analysis and representation, as well as reinterpretation of the data by future researchers. The case study design gave the researcher an opportunity to explore the challenges faced by school administrators in managing schools with more female than male teachers within context and time scale available (Bell, 1999). This was also in conformity with what Kemmis (2010) and Reckwitz (2002) [in separate studies] stated that: The phenomena or event investigated in a case study occurs in place as well as being a domain of practice. Thus, case study involves an inquiry into the practices of those who are present within the case. Seeing that practice is inseparable from those whose practice it is, case study provides an opportunity to become aware of the actions and practices of particular people or groups, within the situation or context of their happening. The research was conducted in basic government schools in Monze district in the Southern Province of Zambia. Zambia is located in the Central Southern part of Africa. It covers 752,618 km² with a population of 16,405,229 (Zambia in Figures, 2018). Monze is located 1,044m above sea level in the Southern Province of Zambia with a total population of 191,872; of which 97,914 are female and 93,958 are male (2010 Census). Monze district covers an area of 4,836 km² (Central Statistical Office Zambia Web). The District has 99 schools (Monze DEBS, 2017).

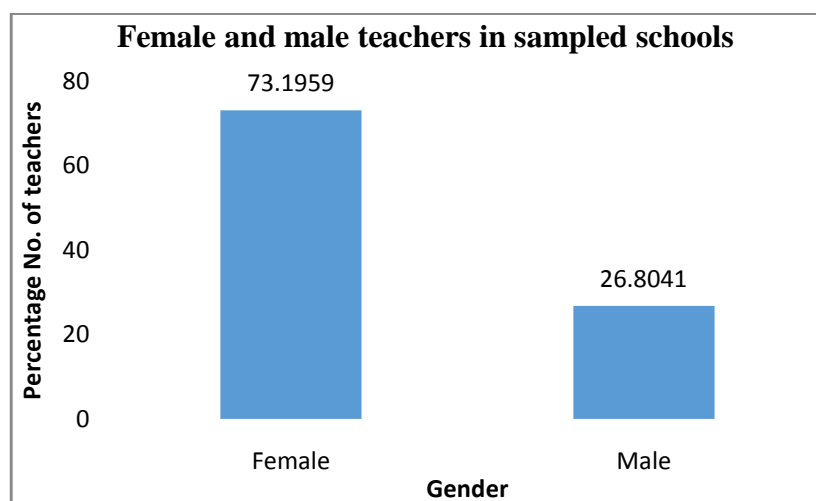
The population of this study included all government schools in Monze District, Southern Province of Zambia. According to records accessed at Monze DEBS (2017), there were 99 Schools in Monze District. The target population of the study included all selected schools with more female than male teachers. According to the DEBS office, there were 24 schools with more female than male teachers in Monze District (see appendix 1). The researcher used 12 schools in the study. At each school, 2 respondents were picked, giving a total of respondents. The target respondents at each school included the school head teacher and deputy head teacher. The research sample was drawn from records (lists) of schools and final year results obtained by learners in the sampled schools. These were obtained within the school system in the ministry of general education; DEBS office being the main source. The purposeful sampling technique was used in this research. This sampling technique was used because the elements in the sample

were selected based on the judgment and knowledge the researcher had on the topic under investigation. A semi structured questionnaire was used to collect primary and secondary data needed in exploring the challenges administrators face in managing schools with more female than male teachers.

DATA ANALYSIS

According to data obtained at the DEBS office for 2018 in figure 4.1, there were 661 teachers in the sampled schools; out of which 462 (73%) were female and 199 (27%) were male.

Figure 4.1: Total number of female and male teachers in the sampled schools



When asked about the ratio of female to male teachers in the sampled schools, respondents (school administrators) expressed concerns. This motivated the researcher to collect more data now being analysed in this chapter in line with the research questions:

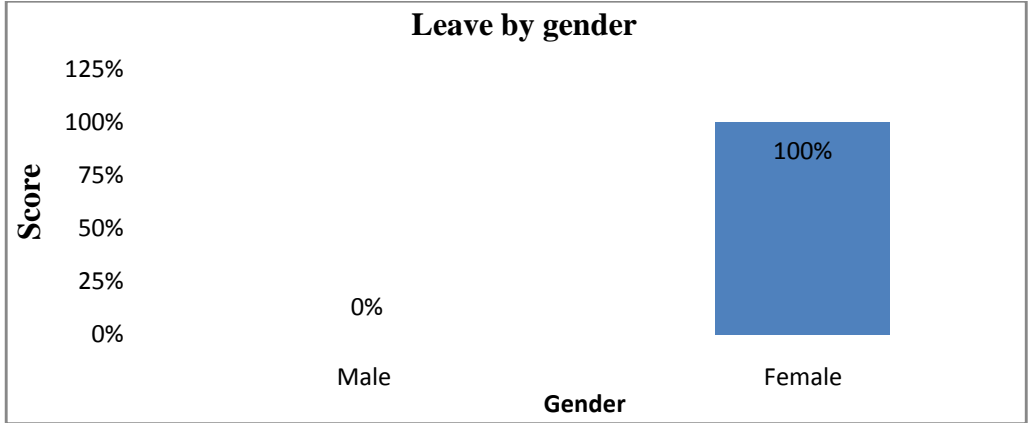
1. What challenges do administrators face in managing schools that have more female than male teachers?
2. What relationship is there between the number of female teachers and student performance in the selected schools?
3. What can be done to mitigate the identified challenges?

Challenges intrinsic to female teachers were identified to be maternity leave, home chores, self-esteem, physical activities and care-giving. The research results to these challenges are given as responses/findings to the questions outlined in the research instrument.

The question concerning maternity leave was covered in questions 10, 11 and 12.

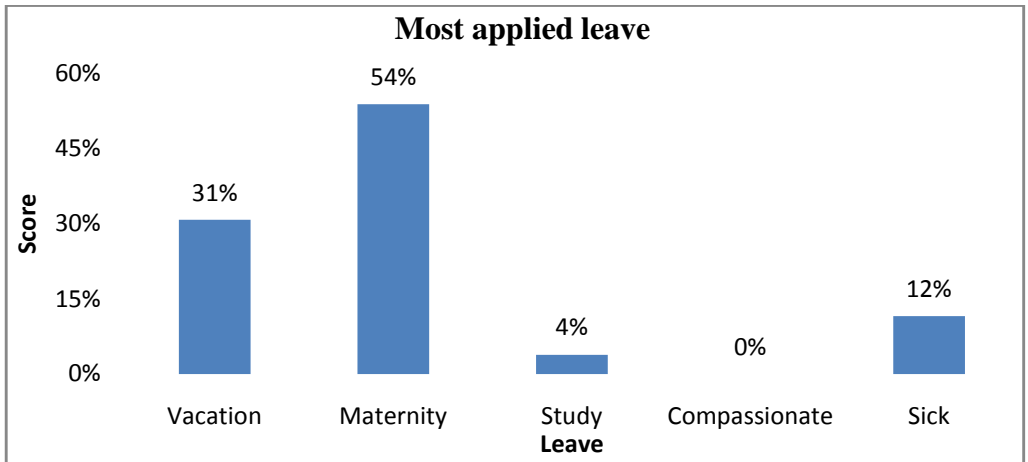
Question 10 was inquiring how often teachers in sampled schools went on leave. The results to this question are shown in figure 4.2 below:

Figure 4.3: Which teachers usually went on leave?



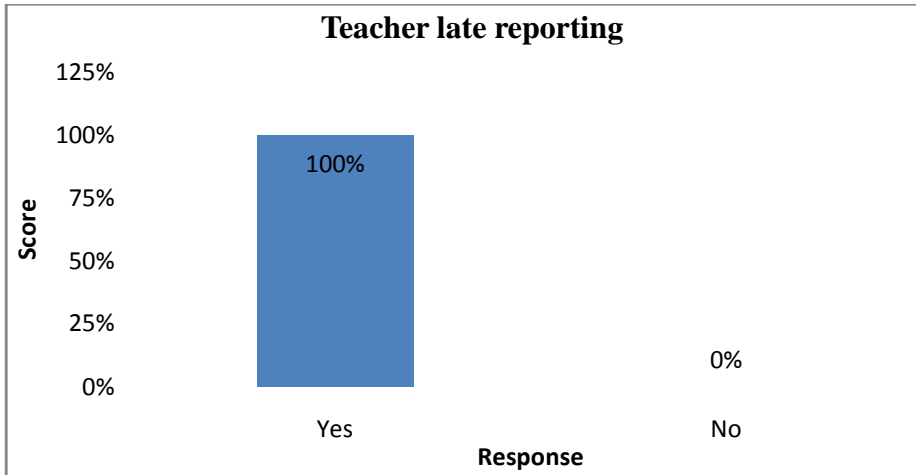
100% of the respondents indicated that female teachers usually went on leave more than male teachers. To consolidate the inquiry on maternity leave, question 12 was asked to know which leave was most applied for. Five types of leave were listed as options; namely vacation, maternity, study, compassionate, and sick. Figure 4.4 shows the results to question 12.

Figure 4.4: What kind of leave is most applied for?



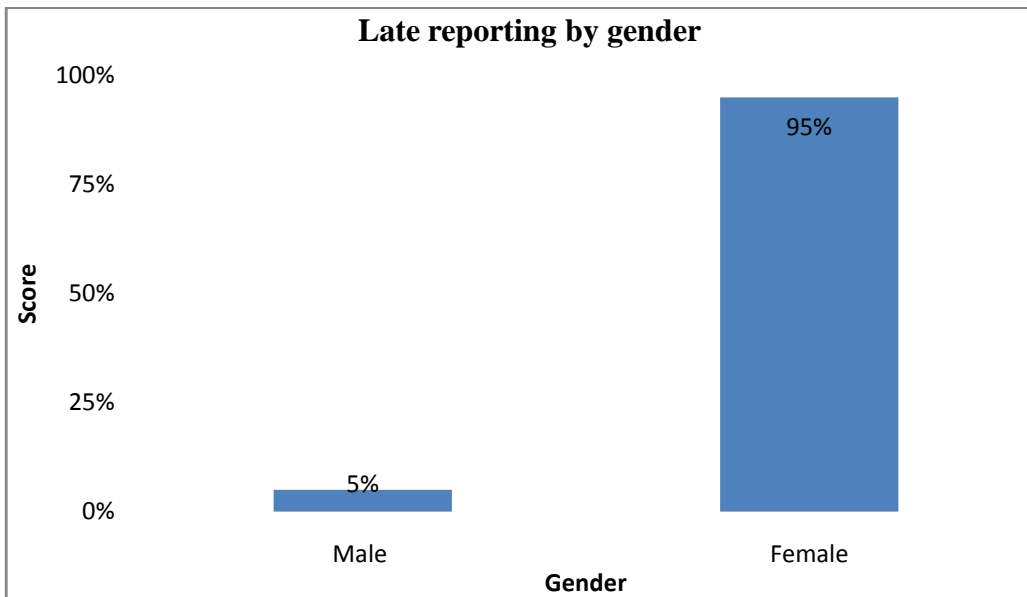
20 respondents (administrators) participated in the question about which leave was most applied for. Approximately 31% indicated vacation, 54% indicated maternity, 4% study; no respondents indicated compassionate leave but 12% indicated sick leave.

Figure 4.5: Do teachers sometimes report late for work?



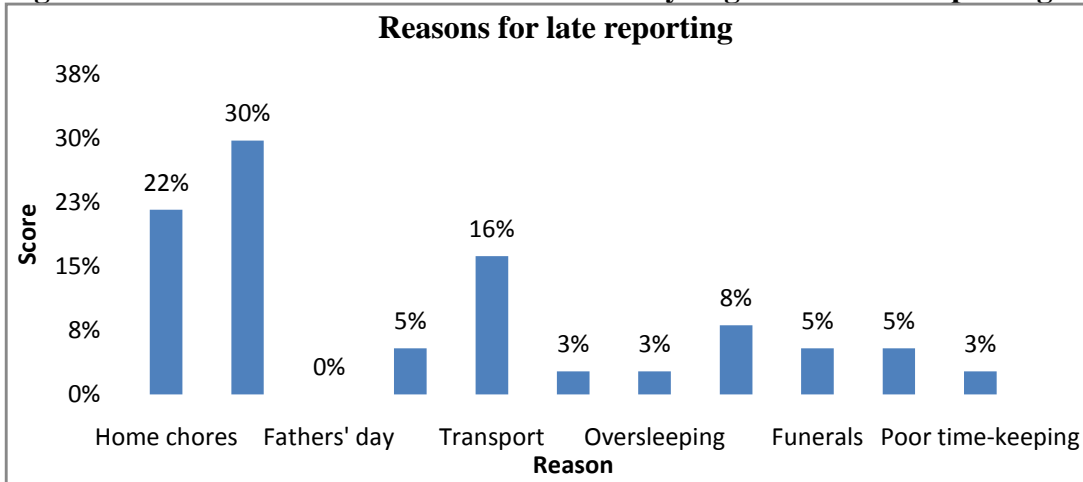
As can be seen in the figure above, 100% of the respondents agreed that sometimes teachers reported late for work. The researcher was interested to know which teachers between males and females usually reported late for work. Figure 4.6 shows the results:

Figure 4.6: Which teachers usually report late for work?



95% of the respondents indicated that female teachers sometimes reported late for work more than male teachers. Further, the researcher inquired to know the reasons female teachers sometimes reported late for work. Figure 4.7 shows the reasons:

Figure 4.7: What reasons are usually given for reporting late?



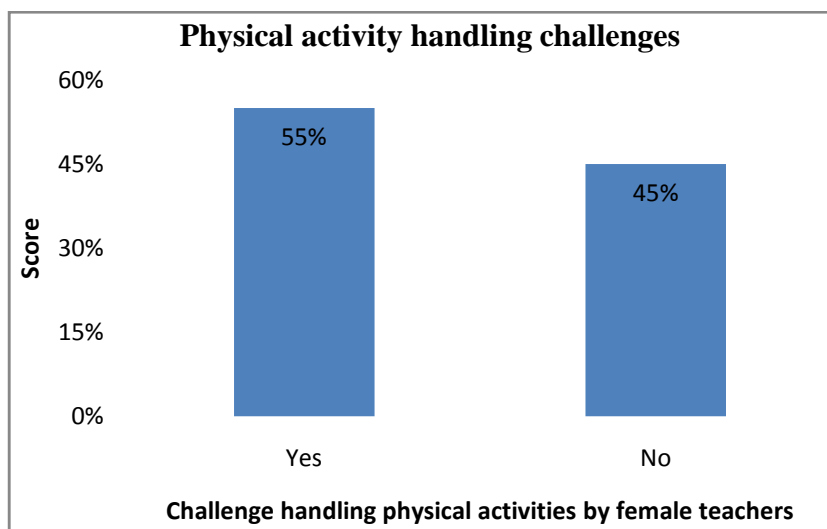
Home chores scored 22%; care-giving 30%; transport scored 16%, and sickness 8%. Mother’s day, funerals and studies scored 5% each in fifth position. In sixth position were weather, oversleeping, and poor time-keeping at 3% each. No respondents gave father’s day as reason for late coming.

As can be seen in the figure, 55% of the respondents indicated that teachers needed close supervision. However, there was no follow-up question to identify which gender of the teachers needed more close supervision, and vice versa. This could be recommended for future research.

Handling physical activities

The researcher inquired to know whether or not school administrators had any challenges with female teachers handling physical activities like sports and exercises or not. Figure 4.9 below shows the results:

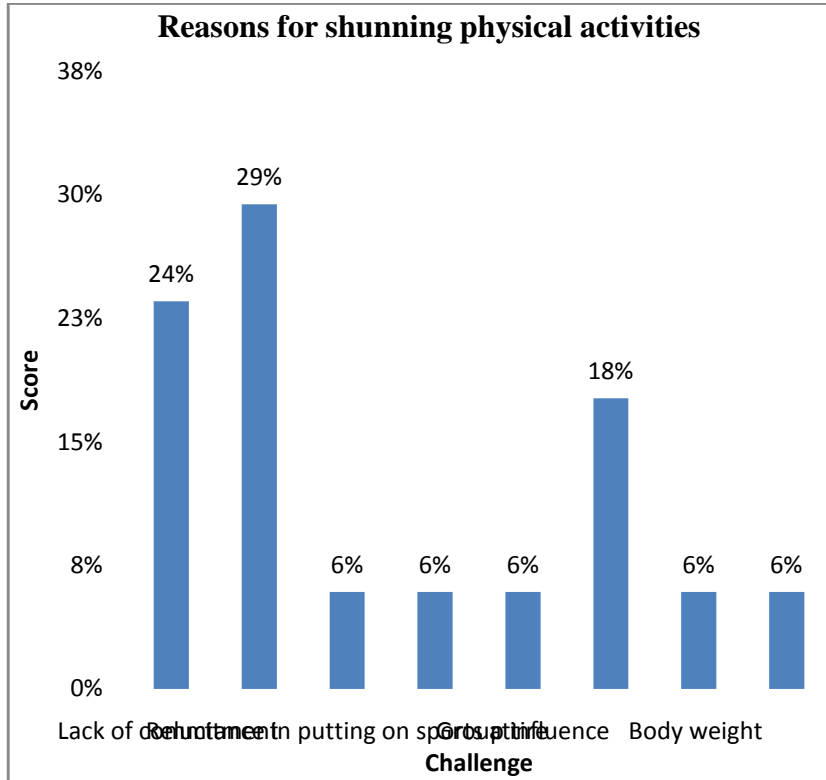
Figure 4.9: Do you have any challenges with your female teachers when it comes to handling physical activities like sports and exercises?



55% of the respondents answered “Yes”, while 45% answered “No”. Figure 4.10 lists the

reasons why handling physical activities by female teachers was a challenge.

Figure 4.10: List the challenges on handling physical activities by female teachers



Female teachers shunned physical activities mainly due to negative attitude (29%), lack of commitment (24%) and laziness (18%) as can be seen in figure 4.10. Other reasons cited reluctance on putting on sports attire, lack of interest on outdoor activities, group influence, body weight and baby-sitting at 6% score each. For purposes of this study, only the top three reasons were considered significant.

Care-giving

Figure 4.7 identifies care-giving as the highest reason (30%) why female teachers reported late for work. Thus, it significantly contributes to the challenges faced by administrators in managing schools with more female than male teachers.

Part two: identification of the challenges faced by administrators in managing schools with more female than male teachers

Challenges faced by school administrators were identified in figure 4.11 as mainly being:

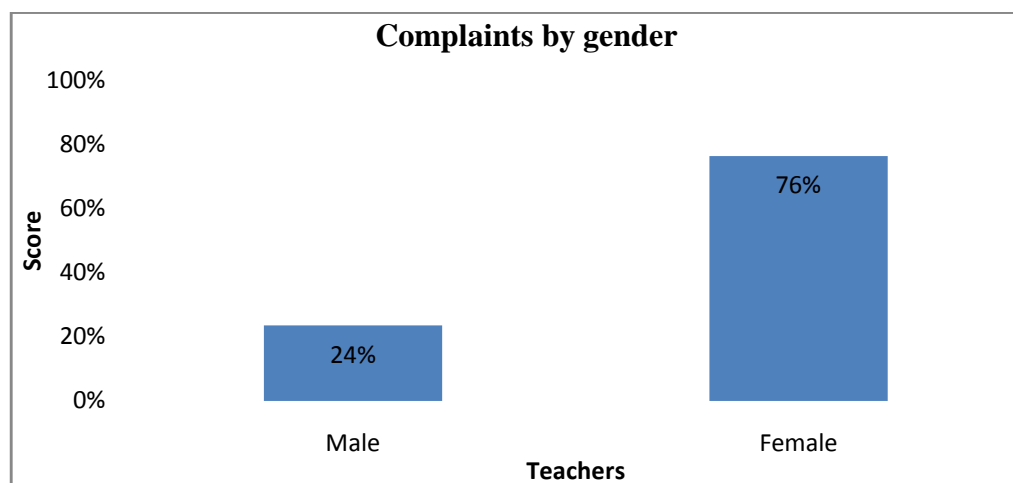
1. Teacher absenteeism
2. Use of abusive language and beating learners
3. Teacher late reporting
4. Pupil/School performance
5. Lack of teacher commitment

6. Handling physical activities.

These challenges had a ripple effect on human resource (HR) planning at the District Education Board Secretary (DEBS) office and Ministry of General Education (MoGE) levels.

Teacher absenteeism scored highest at 31%, followed by lack of teacher commitment at 17%. Poor learner performance and abusive language and beating learners were third at 14% each. Late teacher Reporting for work scored 10%. Excessive home-works, learner motivation, teacher emotional instability, and beer drinking scored 3% each. These challenges were given to school administrators as complaints from learners and surrounding community mainly against female teachers, as shown in figure 4.12.

Figure 4.12: Which teachers were usually complained about?



Majority of the respondents indicated that female teachers were mostly complained about by learners and community members compared to male. Therefore, in the second research question and objective, the researcher sought to find out if there was any relationship between the number of female teachers and learner performance in the sampled schools.

Relationship between the number of female teachers and academic performance in the selected schools

This part answers the second research question and objective. To confirm whether there was a relationship between the number of female teachers and academic performance of learners in the sampled schools, the researcher analysed two data sets 1 and 2 and applied the simple regression analysis. In data set 1, the researcher plotted the number of female teachers against the overall percentage number of pupils who failed the final grade 9 exams. In data set 2, the researcher plotted the number of female teachers against the overall percentage number of learners who passed (obtained certificates) the final grade 9 exams in the sampled schools in 2018. The researcher then plotted a scatter graph and computed the product moment correlation coefficient (r) and spearman's correlation coefficient (ρ) using formulae for each data set in figures 4.13 and 4.14. In part 2, the researcher analyzed the overall performance of learners in the entire period (2015 to 2018) of the study.

Part 1**Table 1.0: Number of female teachers and percentage number of learners who failed grade 9 Final exams (Failure rate) in 2018**

School	No. of Female Teachers (x)	Learner Performance -Fail (y)
A	17	71
B	9	57
C	5	45
D	11	70
E	9	62
F	8	88
G	25	53
H	10	67
I	9	53
J	10	90
K	16	50
L	19	45
M	22	52
N	16	63
O	18	62
P	24	27
Q	19	62

R	27	55
S	37	29
T	39	43
U	48	31
V	54	28

The product moment correlation coefficient (r) was computed using the formula, as follows:

$$r = \frac{n(\Sigma xy - (\Sigma x)(\Sigma y))}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

$$r = \frac{22(21,333) - (452)(1,203)}{\sqrt{[22(13,024) - (452)^2][22(72,085) - (1,203)^2]}}$$

$$r = \frac{469,326 - 543,756}{\sqrt{[286,528 - 204,304][1,585,870 - 1,447,209]}}$$

$$r = \frac{-74,430}{\sqrt{[82,224][138,661]}}$$

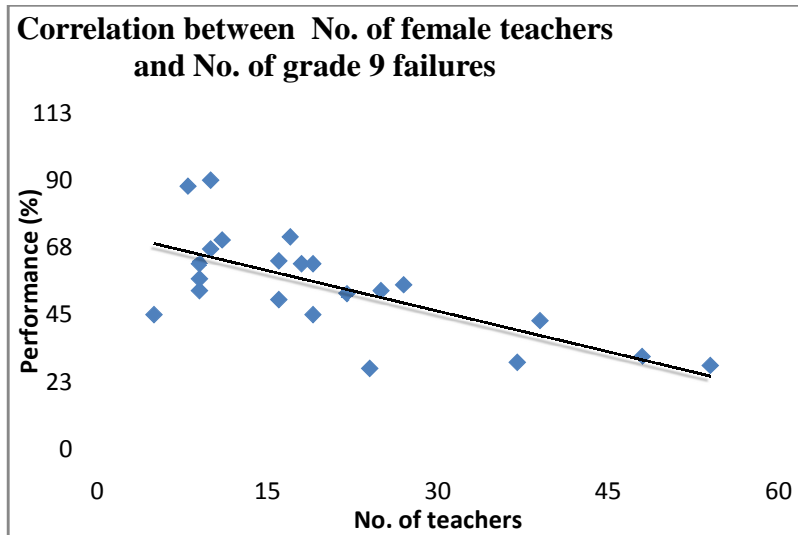
$$r = \frac{-74,430}{\sqrt{11,401,262,064}}$$

$$r = \frac{-74,430}{106,776.70}$$

$$r = -0.7$$

The above result confirms a strong negative linear relationship between the number of female teachers and academic performance of learners in the sampled schools. Figure 4.13 confirms the negative linear relationship:

Figure 4.13: Scatter graph showing correlation between number of female teachers and learner performance per school-Failed students



The spearman rank-order coefficient correlation (ρ) for the same data set 1 was computed using the formula (see results in table 2 to 4).

Table 1.1: Correction factor (cf) for the number of female teachers (x) - fail

School	No. of Female Teachers (x)	sorted data		cf	m (No. of tied observations)	rank	correction factor (cf)=m(m-1)/12	Tied rank
A	17	V	54			1		
B	9	U	48			2		
C	5	T	39			3		
D	11	S	37			4		
E	9	R	27			5		
F	8	G	25			6		
G	25	P	24			7		

H	10	M	22			8		
I	9	L	19	cf1	2	9.5	cf1 = 0.5	19 19
J	10	Q	19			9.5		9 10 9.5
K	16	O	18			11		
L	19	A	17			12		
M	22	K	16	cf2	2	13.5	cf2 = 0.5	16 16
N	16	N	16			13.5		13 14 13.5
O	18	D	11			15		
P	24	H	10	cf3	2	16.5	cf3 = 0.5	10 10
Q	19	J	10			16.5		16 17 16.5
R	27	B	9	cf4	3	19	cf4 = 2	10 10
S	37	E	9			19		18 19 20 19
T	39	I	9			19		
U	48	F	8			21		
V	54	C	5			22		
Total	452		452			253	3.5	

Table 1.2: Correction factor (cf) on (y) variables (academic performance) – fail

School	No. of Female Teachers (x)	sorted data		cf	m (No. of tied observations)	rank	correction factor (cf)= $m(m^2-1)/12$	Tied rank
A	71	J	90			1		
B	57	F	88			2		
C	45	A	71			3		
D	70	D	70			4		
E	62	H	67			5		
F	88	N	63			6		
G	53	E	62	cf5	3	8	cf5 = 2	62 62 62
H	67	O	62			8		7 8 9 8
I	53	Q	62			8		
J	90	B	57			10		
K	50	R	55			11		
L	45	G	53	cf6	2	12.5	cf6 = 0.5	53 53
M	52	I	53			12.5		12 13 12.5
N	63	M	52			14		
O	62	K	50			15		
P	27	C	45	cf7	2	16.5	cf7 = 0.5	45 45
Q	62	L	45			16.5		16 17 16.5
R	55	T	43			18		

S	29	U	31			19		
T	43	S	29			20		
U	31	V	28			21		
V	28	P	27			22		
Total	1,203		1,203			253		3

Note: correction factor (cf) = summation of cf in table 3 and 4 = 3.5 + 3.0 = 6.5

Table 1.3: Spearman’s Rank-Order Correlation Coefficient on failed learners 2018

School	No. of Female Teachers (x)	Learner Performance - Fail (y)	Rank x	Rank y	D	D ²
A	17	71	12	3	9	81
B	9	57	19	10	9	81
C	5	45	22	16.5	5.5	30.25
D	11	70	15	4	11	121
E	9	62	19	8	11	121
F	8	88	21	2	19	361
G	25	53	6	12.5	-6.5	42.25
H	10	67	16.5	5	11.5	132.25
I	9	53	19	12.5	6.5	42.25
J	10	90	16.5	1	15.5	240.25
K	16	50	13.5	15	-1.5	2.25

L	19	45	9.5	16.5	-7	49
M	22	52	8	14	-6	36
N	16	63	13.5	6	7.5	56.25
O	18	62	11	8	3	9
P	24	27	7	22	-15	225
Q	19	62	9.5	8	1.5	2.25
R	27	55	5	11	-6	36
S	37	29	4	20	-16	256
T	39	43	3	18	-15	225
U	48	31	2	19	-17	289
V	54	28	1	21	-20	400
Total	452	1,203	253	253	0	2,838

See computation next page

The Spearman's Rank-Order coefficient correlation, denoted by (ρ), was calculated using the tied ranks formula as follows:

$$\rho = 1 - \frac{6\sum D^2 + cf}{n(n^2 - 1)}; \text{ Where } cf \text{ is correction factor given by the formula:}$$

$$cf = \frac{m(m^2 - 1)}{12} = 6.5; \text{ Where } m \text{ is the number of observations tied to a particular rank (see tables 2 and 3).}$$

$\sum Di = 2,838$; given in table 2 above

$$\rho = 1 - \frac{6(2,838 + 6.5)}{22(22^2 - 1)}$$

$$\rho = 1 - \frac{6(2,844.5)}{22(484 - 1)}$$

$$\rho = 1 - \frac{17,076}{22(483)}$$

$$\rho = 1 - \frac{17,076}{10,626}$$

$$\rho = \frac{10,626 - 17,076}{10,626}$$

$$\rho = \frac{-6,450}{10,626}$$

$$\rho = -0.6$$

The above result confirms that a strong negative relationship exists between the number of female teachers and overall percentage number of learners who failed the grade 9 final exams in the sampled schools. The results on data set 2 are shown in tables 5 to 8 and figure 4.14:

Data set 2

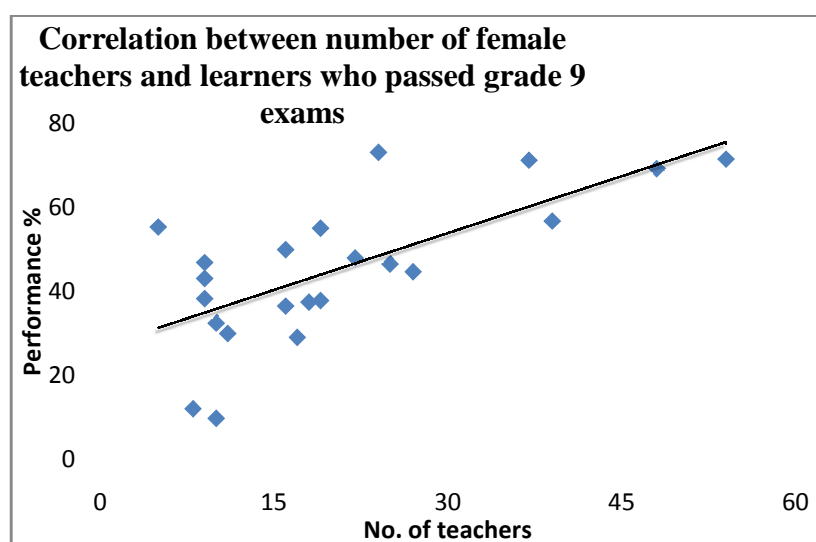
Table 2.0: Number of female teachers and learners who pass grade 9 exams

School	No. of Female Teachers (x)	Learner Performance –Pass% (y)
A	17	29
B	9	43
C	5	55
D	11	30
E	9	38
F	8	12
G	25	47
H	10	33
I	9	47
J	10	10
K	16	50
L	19	55

M	22	48
N	16	37
O	18	38
P	24	73
Q	19	38
R	27	45
S	37	71
T	39	57
U	48	69
V	54	72
Total	452	997

Based on data set 2, the researcher plotted a scatter graph (figure 4.14) and computed the product moment coefficient correlation (r) using the formula:

Figure 4.14: Graph showing correlation between number of female teachers and learner performance per school-pass grade



The above result shows a strong positive linear relationship between the number of

female teachers and performance of learners in the sampled schools. To confirm the linear relationship, the researcher computed the coefficient correlation (r) using the formula as follows:

$$r = \frac{n(\Sigma xy - (\Sigma x)(\Sigma y))}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

$$r = \frac{22(23,848) - (452)(997)}{\sqrt{[22(13,024) - (452)^2][22(51,493) - (997)^2]}}$$

$$r = \frac{524,656 - 450,644}{\sqrt{[286,528 - 204,304][1,132,846 - 994,009]}}$$

$$r = \frac{74,012}{\sqrt{[82,224][138,837]}}$$

$$r = \frac{74,012}{\sqrt{11,415,733,488}}$$

$$r = \frac{74,012}{106,844.44}$$

r = 0.7

To confirm the relationship between the number of female teachers and learner performance, the researcher computed the spearman correlation coefficient (ρ) as follows:

Table 2.1: Correction factor (cf) on (x) for learners who passed grade 9 exams

School	No. of Female Teachers (x)	sorted data		cf	m (No. of tied observations)	rank	correction factor (cf)=m(m ² -1)/12	Tied rank
A	17	V	54			1		
B	9	U	48			2		
C	5	T	39			3		
D	11	S	37			4		
E	9	R	27			5		
F	8	G	25			6		
G	25	P	24			7		

H	10	M	22			8					
I	9	L	19	cf1	2	9.5	cf1 = 0.5	19	19		
J	10	Q	19			9.5		9	10	9.5	
K	16	O	18			11					
L	19	A	17			12					
M	22	K	16	cf2	2	13.5	cf2 = 0.5	16	16		
N	16	N	16			13.5		13	14	13.5	
O	18	D	11			15					
P	24	H	10	cf3	2	16.5	cf3 = 0.5	10	10		
Q	19	J	10			16.5		16	17	16.5	
R	27	B	9	cf4	3	19	cf4 = 2	10	10		
S	37	E	9			19		18	19	20	19
T	39	I	9			19					
U	48	F	8			21					
V	54	C	5			22					
Total	452					253		3.5			

Table 2.2: Correction factor (cf) on (y) for learners who passed grade 9 exams

School	No. of Female Teachers (x)	sorted data		cf	m (No. of tied observations)	rank	correction factor (cf)= $\frac{m(m^2-1)}{12}$	Tied rank
A	29	P	73			1		
B	43	V	72			2		
C	55	S	71			3		
D	30	U	69			4		
E	38	T	57			5		
F	12	C	55	cf 5	2	6.5	cf1 = 0.5	55 55
G	47	L	55			6.5		6 7 6.5
H	33	K	50			8		
I	47	M	48			9		
J	10	G	47	cf 6	2	10.5	cf2 = 0.5	47 47
K	50	I	47			10.5		10 11 10.5
L	55	R	45			12		
M	48	B	43			13		
N	37	E	38	cf 7	3	15	cf3 = 2	38 38 38
O	38	O	38			15		14 15 16 15
P	73	Q	38			15		
Q	38	N	37			17		
R	45	H	33			18		

S	71	D	30		19		
T	57	A	29		20		
U	69	F	12		21		
V	72	J	10		22		
Total	452				253		3

Note: correction factor (cf) = summation of cf in table 6 and 7 = 3.5 + 3.0 = **6.5**

Table 2.3: Spearman’s Rank-Order Correlation Coefficient on learners who passed (obtained certificates) grade 9 exams

School	No. of Female Teachers (x)	Learner Performance -Fail (y)	Rank x	Rank y	D	D ²
A	17	29	12	20	-8	64
B	9	43	19	13	6	36
C	5	55	22	6.5	15.5	240.25
D	11	30	15	19	-4	16
E	9	38	19	15	4	16
F	8	12	21	21	0	0
G	25	47	6	10.5	-4.5	20.25
H	10	33	16.5	18	-1.5	2.25
I	9	47	19	10.5	8.5	72.25
J	10	10	16.5	22	-5.5	30.25
K	16	50	13.5	8	5.5	30.25

L	19	55	9.5	6.5	3	9
M	22	48	8	9	-1	1
N	16	37	13.5	17	-3.5	12.25
O	18	38	11	15	-4	16
P	24	73	7	1	6	36
Q	19	38	9.5	15	-5.5	30.25
R	27	45	5	12	-7	49
S	37	71	4	3	1	1
T	39	57	3	5	-2	4
U	48	69	2	4	-2	4
V	54	72	1	2	-1	1
Total	452	997	253	253	0	691

See computation next page

The Spearman's Rank-Order coefficient correlation (ρ) on students who obtained grade 9 certificates was calculated as follows:

$$\rho = 1 - \frac{6\sum Di + cf}{n(n^2 - 1)}; \text{ Where } cf \text{ was correction factor given by the formula:}$$

$$m = \frac{m(m^2 - 1)}{12} = 6.5; \text{ Where } m \text{ was the number of observations tied to the same rank (see tables 6 and 7).}$$

$$\sum Di = 691; cf = 6.5 \text{ given in table 4; } n \text{ (number of schools in sample)} = 22$$

$$\rho = 1 - \frac{6(691 + 6.5)}{22(22^2 - 1)}$$

$$\rho = 1 - \frac{6(697.5)}{22(484 - 1)}$$

$$\rho = 1 - \frac{4,185}{22(483)}$$

$$\rho = 1 - \frac{4,185}{10,626}$$

$$\rho = \frac{10,626 - 4,185}{10,626}$$

$$\rho = \frac{6,441}{10,626}$$

$$\rho = 0.6$$

The above result confirms the positive relationship between the number of female teachers and learner performance in the sampled schools.

Further assessment of academic performance of grade 9 learners in sampled schools

The researcher further assessed performance of the grade 9 learners in the sampled schools as follows:

- Total number of candidates who sat for final grade 9 exams
- Summary of grades obtained in all subjects
- Year-on-year performance (pass and fail grades) for all subjects
- Performance in two selected subjects

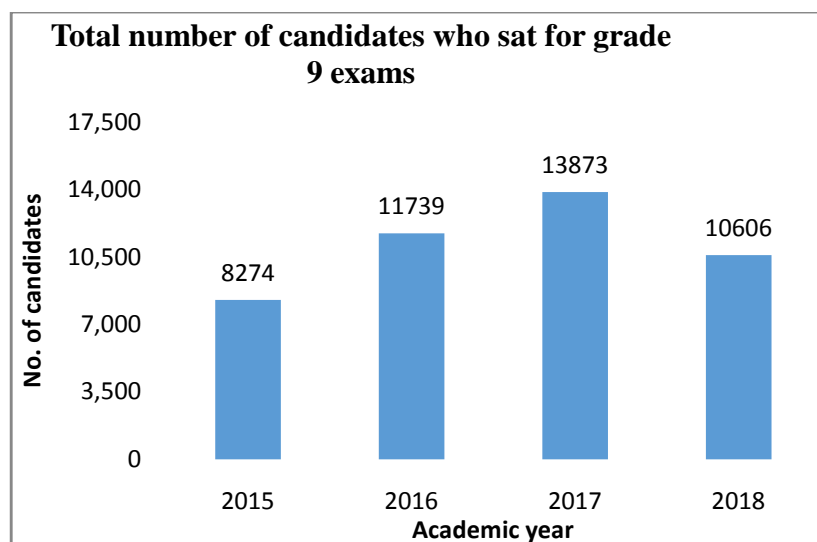
Table 3: Number of candidates who sat for final grade 9 exams from 2015 to 2018

S/N	Name of school	Teachers		2015	2016	2017	2018	Total
		M	F					
1	A	15	17	659	556	637	559	2,411
2	B	6	9	532	603	245	169	1,549
3	C	2	5	0	327	365	231	923
4	D	7	11	469	327	466	399	1,661
5	E	5	9	666	764	659	651	2,740
6	F	4	8	0	299	272	140	711

7	G	20	25	229	125	414	736	1,504
8	H	4	10	0	405	608	206	1,219
9	I	3	9	214	240	285	213	952
10	J	4	10	0	372	510	355	1,237
11	K	9	16	423	450	399	252	1,524
12	L	11	19	382	536	367	361	1,646
13	M	14	22	0	407	394	383	1,184
14	N	7	16	333	435	397	328	1,493
15	O	7	18	543	538	632	325	2,038
16	P	12	24	446	550	568	448	2,012
17	Q	5	19	282	263	336	240	1,121
18	R	7	27	0	1442	1454	634	3,530
19	S	10	37	802	801	1594	1563	4,760
20	T	11	39	677	686	1256	1112	3,731
21	U	16	48	548	586	1036	812	2,982
22	V	16	54	1069	1027	979	489	3,564
Total		195	452	8,274	11,739	13,873	10,606	44,492

Figure 4.15 shows that the number of learners who sat for final grade 9:

Figure 4.15: graph showing number of candidates who sat for final grade 9 exams in 22 schools, Monze district from 2015 to 2018



The figure shows that the number of learners who sat for final grade 9 exams from 2015 followed an upward trend except in the 2018. The breakdown of the grades obtained in the final exams is shown in figure 4.16 (table 10).

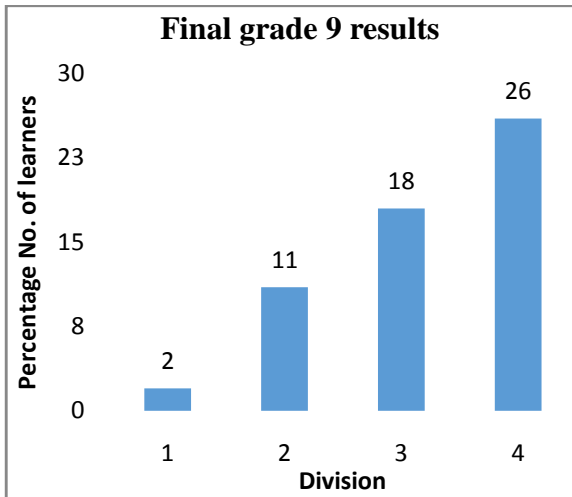
Table 4: Grades obtained by grade 9 learners from 2015 to 2018

S/N	Name of school	Teachers		Grade class (division)							
		M	F	One	Two	Three	Four	Fail	Entered	Sat	Absent
1	A	15	17	55	315	496	581	963	2752	2411	341
2	B	6	9	23	160	197	359	810	1951	1549	402
3	C	2	5	20	83	146	251	423	1024	923	101
4	D	7	11	45	282	354	345	635	1973	1661	312
5	E	5	9	34	326	522	659	1199	3336	2740	596
6	F	4	8	4	51	91	180	385	1000	711	289
7	G	20	25	54	201	231	321	697	1645	1504	141

8	H	4	10	14	77	165	334	629	1480	1219	261
9	I	3	9	47	161	197	240	307	1168	952	216
10	J	4	10	21	71	155	273	717	1480	1237	243
11	K	9	16	12	128	265	442	677	1616	1524	92
12	L	11	19	15	163	332	499	637	1891	1646	245
13	M	14	22	41	135	202	282	524	1337	1184	153
14	N	7	16	8	69	159	319	938	1705	1493	212
15	O	7	18	16	158	365	610	889	2530	2038	492
16	P	12	24	45	321	472	557	617	2111	2012	99
17	Q	5	19	5	49	87	261	719	1265	1121	144
18	R	7	27	54	258	515	846	1857	4267	3530	737
19	S	10	37	80	612	951	1318	1799	5254	4760	494
20	T	11	39	51	326	577	1033	1744	4342	3731	611
21	U	16	48	88	559	700	743	892	3274	2982	292
22	V	16	54	30	313	720	1061	1440	4175	3564	611
Total		195	452	762	4,818	7,899	11,514	19,498	51,576	44,492	7,084
		Percentage		2%	11%	18%	26%	44%		86%	16%

Figure 4.16 shows the grades obtained by learners in the final grade 9 exams.

Figure 4.16: Graph showing grades of grade 9 learners

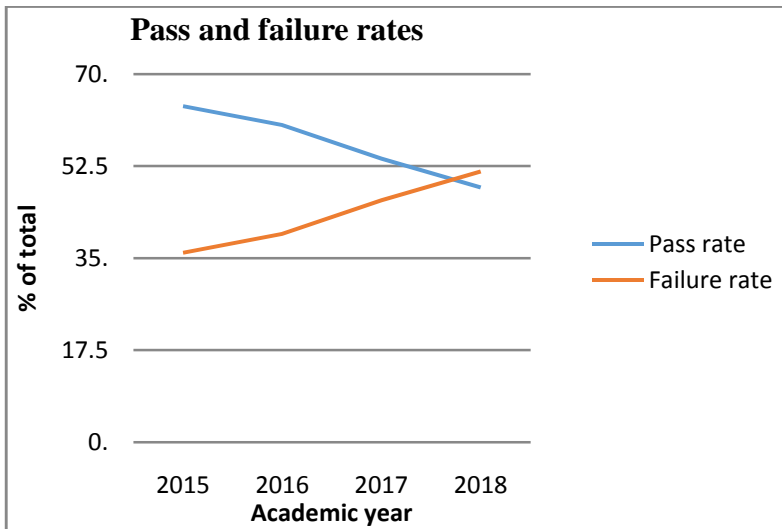


Majority of the candidates got division three and four (44%), compared to division one and two (13%). The year-on-year performance is shown in figure 4.17 (table 11):

Table 5: Academic performance per year

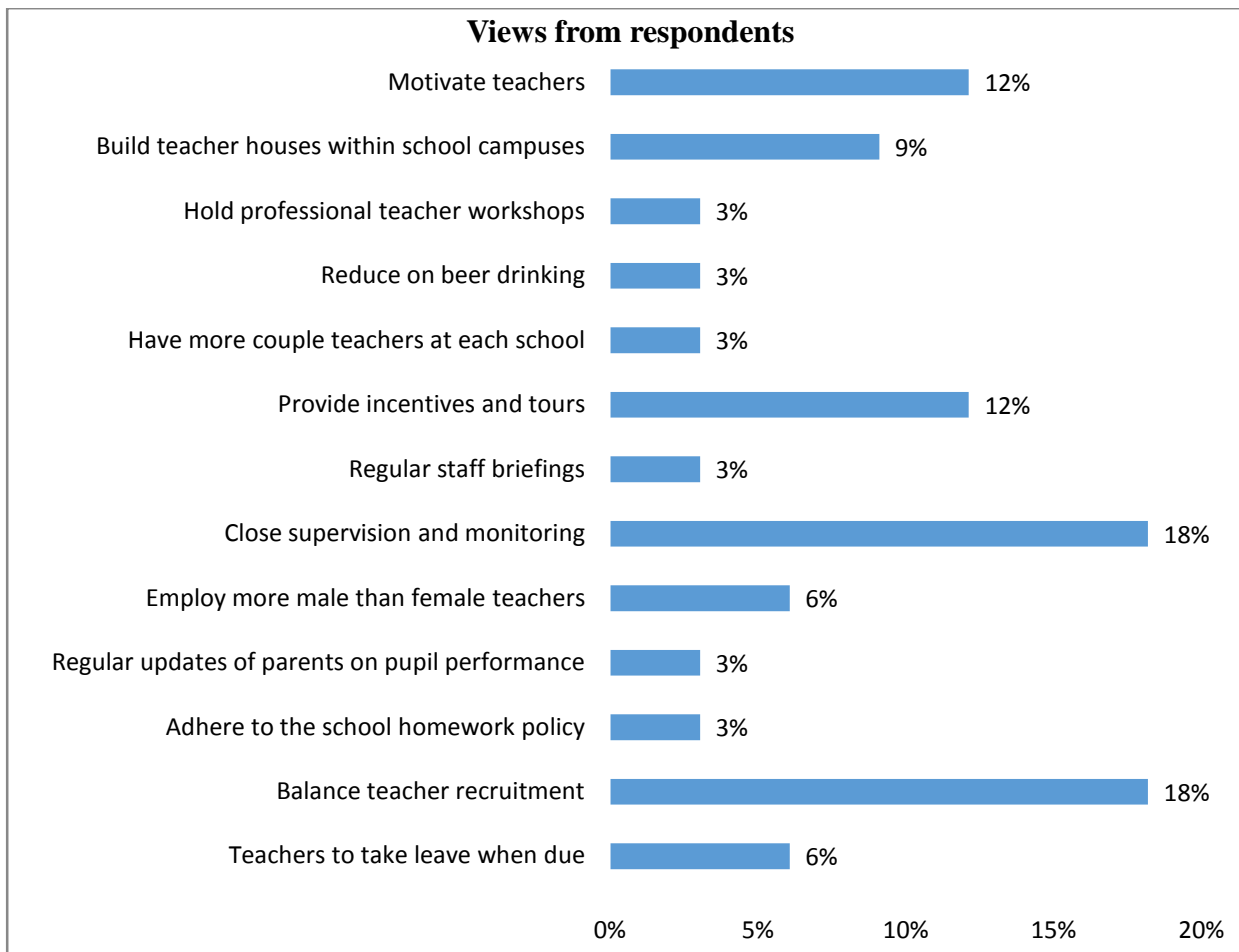
Academic year	Pass rate	Failure rate
2015	63.93	36.07
2016	60.34	39.66
2017	53.93	46.07
2018	48.47	51.53

Figure 4.17: Comparison of the pass and fail rates Monze District 2015 to 2018



The pass rate followed a downward trend, while the failure rate followed an upward trend.

Figure 4.18: Graph showing views (recommendations) from respondents



The above views constitute the recommendations made by the researcher in chapter five of this study.

In this study, the researcher looks at absenteeism as being the absence of a teacher from work with or without good reason. The researcher uses teacher absenteeism interchangeably with teacher absence. Results of the study show that female teachers were usually absent from work more than male teachers. The results of the study suggest that absenteeism reduces the amount of teaching and learning time in sampled schools. Teacher absenteeism affects the quality of teaching and learning, hence impacting on learner academic performance. This is in line with the findings in related studies conducted by other researchers both in Zambia and other countries in the world.

Human Resource (HR) planning

Administrators running schools with more female than male teachers face a challenge of human resource planning at school, district education board secretary (DEBS) and/or ministry of general education (MoGE) levels.

The results of the study in figure 1 show that 56% and 44% of the teachers in the sampled schools go on leave termly and yearly respectively. Figure 4.3 shows that female teachers usually went on leave more than male teachers. This is confirmed in figure 4.4 which shows the score for each type of leave: maternity leave 54%, vacation leave 31%, sick leave 12%, and study leave 4%. All the above listed leaves cause the absence of female teachers both from school and work. As the case is in this study that female teachers more often go on leave than male teachers (figure 4.2), and given the unlikely event that female teachers participate in all the types of leave listed, there is a challenge posed on school administrators to find suitable substitute teachers to fill the vacancies while maintaining high quality of learning at low administrative costs. The teacher is an important variable in the provision of quality education; therefore, continued use of different teachers in teaching the same class in quarterly and yearly intervals has an impact on the quality of teaching and learning. Though this study was not focused on assessing the availability of substitute teachers in the sampled schools, the study of related literature confirms the challenge.

Use of abusive language and beating learners scored 14% on the list of complaints against teachers in figure 4.11. These are traits of a teacher who scores low on the NEO personality inventory in line with Costa and McCrae (1997). The teacher will exhibit neuroticism, openness and conscientiousness traits (anxiety, anger and impulsiveness; moods, and strange actions). The teacher's negative emotions affect learner participation and academic performance in class.

According to the world health organization (WHO), Physical activity is defined as "any bodily movement produced by skeletal muscles that require energy expenditure". For purposes of this research, physical activity included exercises, sports, and other recreational activities.

Physical activity is important in learners as it helps balance energy and controls weight. In later years, regular and adequate physical activity helps reduce the risk of hypertension, coronary heart disease, breast and colon cancer, and depression. Further, physical activity helps improve bone and functional health. Globally, physical inactivity is more prevalent in women (34%) compared to men (28%) [WHO, 2008]. The researcher conceptualized that in schools where female teachers were in majority, physical activity would not be adequately promoted among learners. This has support in the results of the research. In figure 4.10, respondents disclosed that some female teachers in the sampled schools shunned physical activities due to laziness (18%), lacked commitment (24%) and negative attitude (29%) towards handling

physical activities.

A product moment correlation coefficient (r) of -0.7 was computed on data set 1 representing learners who failed the grade 9 final exams in 2018. This confirmed a strong negative linear relationship between the number of female teachers and academic performance of learners in the schools under study. This means that as the number of female teachers increased, the number of learners who failed the final grade 9 exams reduced. The visual presentation of this negative correlation is shown in figure 4.13. Further, the researcher computed the Spearman's rank-order correlation coefficient ρ of -0.6 for the same data set. This confirmed the negative relationship between the number of female teachers and learner performance in the sampled schools. The same operation was done on data set 2 representing the academic performance of learners who passed (obtained certificates) the grade 9 final exams. A product moment correlation coefficient r of 0.7 was obtained. The Spearman correlation coefficient ρ calculated for data set 2 was 0.6, which confirms a moderate relationship between the number of female teachers and number of learners who passed the final grade 9 exams in the sampled schools. The two metrics (positive r and positive ρ) mean that as the number of female teachers increased, the number of learners passing the grade 9 final exams also increased in the period 2015 to 2018.

Conclusion

Results of the research indicate that school administrators face challenges in managing schools with more female than male teachers. There is a strong negative and positive relationship between the academic performance of learners and number of female teachers in the sampled schools, as evidenced by the computed product moment correlation coefficient and the Spearman's rank-order correlation coefficient of positive (and negative) 0.7 and positive (and negative) 0.6 respectively. The aim of this study was to explore the challenges that administrators face in managing schools with more female than male teachers. Based on the results of the study, and in line with the research questions and objectives, the researcher makes the following recommendations:

1. School administrators in the sampled schools should ensure close supervision and monitoring of teachers for prompt performance evaluation, gap detection and filling.
2. The office of the District Board Secretary (DEBS) should ensure gender-balanced teacher recruitment in Monze district in order to mitigate the challenges associated with human resource planning and recruitment.
3. School administrators should provide incentives to motivate female teachers to put in their best regardless of the challenges that work against them. For example assisting expecting teachers who do not leave within school premises with transport to school; provision of special rooms at school where they can rest during break time. This will reduce the resultant challenges on the administration of the schools with more female than male teachers.
4. The DEBS office working with the parents and teachers association (PTA) and the ministry of general education (MoGE) should source funds to enable the construction of teachers' houses within school campuses. This will not only improve the quality of time female teachers will have to teach and interact with the learners, but it will also help female teachers supervise their house helps (maids) during class breaks without negatively affecting the time scheduled for teaching and taking learners through

physical activities.

5. The DEBS office in conjunction with the MoGE should put in place a policy to motivate substitute teachers to ensure continued provision of quality instruction in times when the female teachers go on maternity and vacation leave.

References

- Berg, P., & Lahelma, E. (2010). Gendering processes in the field of physical education. to School." Cambridge, MA: Massachusetts Institute of Technology.
- Das, Jishnu, Stefan Dercon, James Habyarimana, and Pramila Krishnan. 2007. "Teacher Shocks and Student Learning: Evidence from Zambia." *Journal of Human Resources*, 42 4, pp. 820-62.
- Alcázar, Lorena, F. Halsey Rogers, Nazmul Chaudhury, Jeffrey Hammer, Michael Kremer, and Karthik Muralidharan. 2006. "Why Are Teachers Absent? Probing Service Delivery in Peruvian Primary Schools." *International Journal of Education Research*, 45, pp. 117-36.
- Chase, M., & Machida, M. (2011). The role of sport as a social status determinant for Children: Thirty years later. *Research Quarterly for Exercise and Sport* 82, 731-739. doi:10.1080/02701367.2011.10599810 [Links]
- Creswell, J. and Plano C., V. (2007) *Designing and Conducting Mixed Methods Research*, Sage, Thousand Oaks.
- Debora A. O'Neil, Diana B. (2005): Women and Careers: A Critical Perspective Discipline. *Educational and Psychological Measurement*, 51, 755-765. Districts of Zambia, Statoids. Retrieved (February 12 2010)
- Emmer, E. T., Evertson, C., & Worsham, M. E. (2000). Classroom management for Gender and Education 22, 31-46. doi:10.1080/09540250902748184 [Links] *orts & Exercise*, 26,649-660.
- Henson, R. K. (2001). Relationships between preservice teachers' self-efficacy, task in School Leadership in Secondary Schools of Sidama Zone: *IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 22,+9 Issue 12, Ver. 8 (December. 2017) PP 49-56 e-ISSN: 2279-0837, p-ISSN: 2279-084: DOI: 10.9790/0837-2212084956 Leadership*. 49(1). 25-30.
- <https://www.psychometrictest.org.uk/ipip-neo/>. Retrieved March 12, 2019

- Leder, G. C., Forgasz, H. J., & Jackson, G. (2014). Mathematics, English and Gender Issues: Do Teachers Count?. *Australian Journal of Teacher Education*, 39(9). <http://dx.doi.org/10.14221/ajte.2014v39n9.3>. Accessed 23 April 2020: 06:12 a.m.
- Miles, R. (2015) Complexity, representation and practice: Case study as method and methodology. *Issues in Educational Research* 25 (3), 309
- Miller, Raegen T., Richard J. Murnane, and John B. Willet. 2007. "Do teacher absences impact student achievement? Longitudinal evidence from one urban school district." NBER Working Paper 13356.
- Nepal-Living Standards Survey 2010-2011, Third Round, December 2, 2017 4:05 am: on the Theory and Practice of Women Organizations; Paper presented at the 21st EGOS Colloquium, Berlin, June 2005
- Pratt, C....., Pate, R.R. (2008). But I like physical education: Factors associated with enjoyment of Physical Education Class in middle school girls. *Research Quarterly for Exercise and Sport* 79, 18-27. doi: 10.1080/02701367.2008.10599456 [Links] Retrieved on February 3, 2019 from <https://thehimalayantimes.com/kathmandu/women-sti-household-chores-men/>
- Saul Kassin, (2003). *Psychology*. USA: Prentice-Hall, Inc.
- Robinson, C. Michael (2008), "Teacher Absenteeism: Its Relationship to Student Performance on State Assessments in English/Language Arts in Grades Three, Five, and Seven". secondary teachers (5th ed.). Boston: Allyn & Bacon.
- Sibley, B.A. & Etnier, J.L. (2005). The relationship between physical activity and Cognition in children: A meta-analysis. *Peí/iarr/cÉ'jtercweScience*. 75,243-256
- Solomon L. L.; Mesay Kebede (2017): Factors Affecting Female Teachers' Involvement White. *Physical Education & Sport Pedagogy* 14, 19-39. doi: 0.1080/17408980701712106 [Links] women and men into social roles. *Journal of personality and social psychology*, 46(4), 735-754. <https://doi.org/10.1037/0022-3514.46.4.735>
- Taras, H. (2005). Physical activity and student performance at school. *Journal of School Health*, 75,214-21