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WORKLOAD ALLOCATION AND SECONDARY SCHOOL TEACHERS' RETENTION AT CHAMWINO DISTRICT, TANZANIA

The study sought to assess the influence of workload allocation on teachers' job retention in Chamwino District Council of Tanzania. A cross-sectional research design was used with a quantitative research approach. The study used a sample size of 192 respondents selected using simple random sampling. The study involved a questionnaire as the main method of data collection. The collected data were analyzed using descriptive statistics and multiple linear regression analytical methods. The study found that, workload allocation in terms of class size and administrative duties were negative and insignificantly related to teachers' job retention. However, number of teaching hours and number of preparatory hours were positive and significantly related to teachers' job retention (p-value <0.05). The study concludes that class size and administrative duties were the workload allocation factors that negatively affecting teacher job retention while number of teaching hours and number of preparatory hours were positively affecting teachers' job retention in rural areas at public secondary schools in Chamwino district council of Tanzania. Therefore, the study recommends that, reducing workload by hiring more staff and incorporating teaching assistants will enhance teachers' retention.

Key words: workload allocation, teacher job retention, public secondary schools, Chamwino district council, Tanzania

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Мұғалімдердің тұрақтылығын жақсарту үшін жұмыс жүктемесін оңтайландыру: Танзанияның Чамвино ауданының мемлекеттік мектептерінен алынған түсініктер

Зерттеу Танзанияның Чамвино аудандық кеңесінде мұғалімдердің жұмыс орнындағы тұрақтылығына жұмыс жүктемесінің бөлінуінің әсерін бағалауды мақсат етті. Зерттеуде сандық зерттеу әдісімен көлденең зерттеу дизайны қолданылды. Зерттеуде қарапайым кездейсоқ іріктеу әдісімен таңдалған 192 респонденттің үлгісі қолданылды. Негізгі деректерді жинау әдісі ретінде сауалнама қолданылды. Жиналған деректер сипаттамалық статистика және көптік сызықтық регрессия әдістерімен талданды. Зерттеу жұмыс жүктемесінің сынып көлемі мен әкімшілік міндеттер түріндегі бөлінуі мұғалімдердің жұмыс орнындағы тұрақтылығына теріс және шамалы әсер ететінін анықтады. Алайда, сабақ беру сағаттары мен дайындық сағаттарының саны мұғалімдердің жұмыс орнындағы тұрақтылығына оң және маңызды әсер ететіні анықталды (p-value $<0,05$). Зерттеу сынып көлемі мен әкімшілік міндеттер мұғалімдердің жұмыс орнындағы тұрақтылығына теріс әсер ететін жұмыс жүктемесінің бөліну факторлары екенін, ал сабақ беру сағаттары мен дайындық сағаттарының саны мұғалімдердің жұмыс орнындағы тұрақтылығына оң әсер ететінін көрсетеді. Сондықтан, зерттеу жұмыс жүктемесін азайту үшін көбірек қызметкерлерді жалдау және көмекші оқытушыларды тарту мұғалімдердің тұрақтылығын арттыратынын ұсынады.

Түйін сөздер: жұмыс жүктемесінің бөлінуі, мұғалімдердің жұмыс орнындағы тұрақтылығы, мемлекеттік орта мектептер, Чамвино аудандық кеңесі, Танзания.

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Оптимизация распределения рабочей нагрузки для улучшения удержания учителей: выводы из государственных школ района Чамвино, Танзания

Исследование было направлено на оценку влияния распределения рабочей нагрузки на удержание учителей на рабочем месте в районе Чамвино, Танзания. Был использован поперечный исследовательский дизайн с количественным подходом. В исследовании была использована выборка из 192 респондентов, выбранных методом простого случайного отбора. Основным методом сбора данных был опрос. Собранные данные были проанализированы с использованием описательной статистики и методов множественной линейной регрессии. Исследование показало, что распределение рабочей нагрузки в виде размера класса и административных обязанностей отрицательно и незначительно связано с удержанием учителей на рабочем месте. Однако количество учебных часов и количество подготовительных часов положительно и значительно связаны с удержанием учителей на рабочем месте (p-value $< 0{,}05$). Исследование делает вывод о том, что размер класса и административные обязанности были факторами распределения рабочей нагрузки, которые отрицательно влияют на удержание учителей, тогда как количество учебных часов и количество подготовительных часов положительно влияют на удержание учителей в сельских районах государственных средних школ в районе Чамвино, Танзания. Таким образом, исследование рекомендует, что сокращение рабочей нагрузки за счет найма большего числа сотрудников и привлечения ассистентов преподавателей улучшит удержание учителей.

Ключевые слова: распределение рабочей нагрузки, удержание учителей, государственные средние школы, районный совет Чамвино, Танзания.

Introduction

Worldwide, teachers' job retention has become an important one for researchers to investigate. Teacher job retention is the process of keeping teachers in their jobs. This can be done through a variety of methods, such as providing good working conditions, offering competitive salaries, and providing professional development opportunities (Mbiu, 2019). However, there are several reasons for teachers to leave their jobs, including low salaries, poor working conditions, and a lack of support from administrators. In addition, some teachers may feel that they are not able to make a difference in the lives of their students. As a result, it is important to understand the factors that contribute to teachers' job retention in order to improve retention rates (Boniface, 2019).

Teacher retention is crucial for effective education service delivery as it directly impacts the continuity and stability of the learning environment (Johnson *et al.,* 2012). High teacher turnover rates can disrupt student learning and negatively affect school performance (Ingersoll & Strong, 2011). Retaining experienced teachers ensures that schools benefit from their expertise and institutional knowledge, which is essential for maintaining and improving educational quality (Darling-Hammond, 2010). Furthermore, consistent teacher presence helps build stronger relationships with students, fostering a supportive and conducive learning atmosphere (Borman & Dowling, 2008). Thus, prioritizing teacher retention is vital for sustaining high standards in education service delivery (Ronfeldt *et al.,* 2013).

Workload allocation, incentives, and administrative support play important roles in teacher job retention. Proper workload allocation ensures that teachers are not overwhelmed and can maintain a healthy work-life balance, which is essential for long-term job satisfaction (Mbeki, 2023). In developed countries like the United States of America (USA), teacher retention is determined by such factors as monetary incentives, availability of resources, top management support, social respect, the working environment, teacher fulfillment, and student factors that include discipline, respect, and attitude (Watt, Richardson, & Wilkins, 2014). Likewise, in China, lack of monetary incentives, lack of adequate resources, lack of welfare services, huge workloads, lack of principal support, and poor teacher image all negatively affected teacher retention (Wei & Abdullah, 2016).

In Africa, teacher retention programs in schools are the same as in other parts of developed nations. Over the years, South Africa has experienced situations where teachers resigned from the profession in large numbers. Among the reasons given for the high turnover rate are: educator workload, teachers getting burdened with additional administrative responsibilities, capturing learners' marks for con-

tinuous assessment tests, preparing learner reports, lost prestige, and inadequate remuneration (Mazimbuko, 2015). In Gambia, their union noted a huge teachers exit from the teaching career, with reports of up to twenty thousand teachers leaving the profession every year (Hunter, 2016). Among the cited reasons for mass exit from the teaching profession were lack of adequate salaries, delays in salaries and benefits, promotion prospects, and working conditions (Mazimbuko, 2015). In Kenya, the Ministry of Education, through the Kenya Education Sector Support Program, aims to ensure teacher retention through affordable education services. It is therefore important to highlight the governance practices that influence teacher retention (Oduor, 2021).

Management and teacher job retention in Tanzania's Local Government Authorities (LGAs) has been a significant focus since the decentralization reforms began in the early 2000s. These reforms aimed to improve the efficiency and effectiveness of public service delivery by transferring responsibilities from the central government to local authorities (Max, 2019). Initially, these changes were met with challenges, including inadequate resources and capacity at the local level, which hindered effective management and retention of teachers (Mosha, 2018). However, over time, targeted interventions, such as capacity-building programs and improved funding mechanisms, have started to yield positive results (Mkumbo, 2021).

Reforms have played a crucial role in enhancing job retention among teachers in Tanzania's LGAs. Decentralization has allowed for more localized decision-making, enabling authorities to address specific challenges related to teacher management and retention more effectively (Tanzania Ministry of Education, 2017). Initiatives like the introduction of performance-based incentives and professional development opportunities have contributed to increased job satisfaction and reduced turnover rates among teachers (Mwombeki, 2020). Additionally, the implementation of policies aimed at improving working conditions and providing adequate support has been essential in retaining skilled educators within the LGAs (Nyanda, 2022).

The retention of teachers in public schools under Tanzania's Local Government Authorities (LGAs) is crucial for maintaining the quality of education and ensuring the sustainability of educational programs. High teacher retention rates lead to a more stable and experienced teaching workforce, which positively impacts student performance and overall school effectiveness (Mkonda, 2023). To improve teacher retention, the Tanzanian government has implemented several initiatives and strategies. For instance, they have increased salaries and provided additional allowances to teachers working in remote areas to compensate for the challenges they face (Ministry of Education, Science and Technology [MoEST], 2022). Additionally, professional development programs and training opportunities have been established to enhance teachers' skills and career advancement prospects (World Bank, 2022). Furthermore, improvements in school infrastructure and the provision of housing for teachers in rural areas have also been prioritized to create a more conducive working environment (UNESCO, 2021).

Despite many strategies that have been implemented to retain teachers in Tanzania, there is still a problem of teacher attrition as well as labor turnover among public secondary school teachers in most rural councils including Chamwino, Dodoma. For instance, Boniface (2020) in the Dodoma region, specifically in the three districts of Kondoa, Mpwapwa, and Chemba, found that 67% of teachers perceive five key school-level sources of low retention in remote schools. These include a lack of accommodation and social services, school-level conflicts, poor teaching and learning conditions, teachers' involvement in decision-making, and a lack of alternative economic activities.

Research on workload allocation and job retention in various sectors outside Tanzania reveals significant findings that highlight the importance of balanced workloads in retaining employees. For instance, a study conducted by Bhatt and Chopra (2021) in India found a direct correlation between equitable workload distribution and job satisfaction, which subsequently influenced employee retention in the healthcare sector. Similarly, research by Liu et al. (2019) in China identified that high workload and lack of support significantly contributed to high turnover rates among nurses. Also, studies conducted in South Africa and Kenya in Africa reveal a significant relationship between workload and retention of employees in the public sector (Mbele, 2022; Kamau & Mwangi, 2021). Thus, these reviewed studies underscore the critical role that workload management plays in job retention across different sectors, illustrating a global concern about the impact of workload on employee retention.

Furthermore, studies in the education sector also reflect similar findings. Johnson et al. (2020) in the United States examined the effects of workload on teacher retention, revealing that excessive workloads were a major factor leading to teacher attrition. Additionally, a study by Smith and Nguyen (2022) in Australia highlighted that workload allo-

cation was a key determinant of teachers' decisions to stay in their profession. These studies collectively emphasize the global relevance of managing workload to enhance employees' retention. Moreover, number of studies carried out in the human resource management sector, such those by Malisa (2015), Boniface (2020), Mbiu (2019), and Thao (2015), were generalized or did not give information regarding the factors such as workload allocation that affect teacher retention in public secondary schools particular in rural secondary schools. Thus, there is a dearth of studies focusing specifically on workload allocation and teachers' job retention in Tanzania. A study focusing on teacher job retention in rural public secondary schools is salient to improve educational outcomes by ensuring consistent, quality teaching, addressing disparities in teachers' distribution, and fostering community stability and development through sustained local employment. Similarly, a study in this context may result in better student performance given that experienced teachers are more effective in delivering curriculum and managing classrooms (Akinyi & Odongo, 2020). Therefore, this study is set to assess the influence of workload allocation on teachers' job retention drawing experience from Chamwino District Council of Tanzania.

Literature review

Theoretical Review

The study used Job Demand-Control (JDC) theory to assess workload allocation and teachers job retention in rural areas at public secondary schools in the Chamwino district council. Job Demand-Control (JDC) theory was proposed by Karasek and Theorell in 1990. The JDC theory assumes that job demands and job control are the two primary factors that affect employees' job satisfaction, health, and well-being. Job demands refer to the physical, psychological, and social aspects of work that require effort, such as workload and time pressure, while job control refers to the extent to which employees can use their skills and knowledge to make decisions about their work (Bowen *et al.,* 2014).

The strength of the JDC theory is that it provides a clear framework for understanding the relationship between job demands and job control and how they impact employee outcomes. The theory suggests that high job demands coupled with low job control can lead to negative outcomes such as stress, burnout, and poor health (Ibrahim & Ohtsuka, 2014). However, a weakness of the JDC theory is that it oversimplifies the complex nature of work and does not account for individual differences in coping mechanisms and resilience. Additionally, the theory assumes that job demands and job control are independent constructs, when in reality they may be interdependent and influenced by organizational factors (Ariza-Montes *et al.,* 2018).

The JDC theory is applicable to explaining the relationship between workload allocation and teacher job retention because it suggests that high workload demands without sufficient job control can lead to negative outcomes for teachers, such as stress and burnout. This, in turn, may lead to teacher turnover and decreased job retention. Therefore, it is important for schools to consider workload allocation and job control when designing work environments for teachers to promote job satisfaction and retention. Several recent studies have adopted the JDC theory in researches related to the relationship between job demand, work motivation and employee retention (Wu *et al.,* 2023; Zhou *et al.*, 2022; Portoghese *et al.,* 2020).

Empirical Literature Review

A study by Nzewi (2015) revealed that high workload allocation, inadequate resources, and low salaries were significant factors that affected teacher job retention in Nigeria. Similarly, a study by Oluoch (2017) found that workload allocation and inadequate administrative support were major factors that contributed to teacher attrition in Kenya. Furthermore, a study by Mawela and Pillay (2019) reported that workload allocation affected teacher job satisfaction, which in turn impacted retention in South Africa.

The study conducted by Manyeli and Mwakapeje (2021) found that equitable workload allocation and adequate resources were crucial for teacher retention in Tanzania. Similarly, a study by Ngowi (2019) found that workload allocation and inadequate administrative support were major factors that contributed to teacher attrition in Tanzania. Furthermore, a study by Komba and Mwakapeje (2020) reported that workload allocation affected teacher job satisfaction, which in turn impacted retention in Tanzania.

While these studies provide insights, they differ from the current study on factors influencing teacher job retention in rural areas at public secondary schools in Chamwino District Council. The current study specifically focuses on rural settings, where factors such as geographical isolation, limited infrastructure, and distinct socio-economic challenges may play a more significant role in teacher retention. Unlike the broader scope of previous studies, the current research aims to address the unique con-

ditions of rural public secondary schools, potentially revealing additional or differing factors that influence job retention in these specific environments.

Conceptual Framework

A conceptual framework is a structured, theoretical foundation or model that helps researchers and thinkers understand, analyze, and interpret complex phenomena or concepts within a specific field or context. In this study, the conceptual framework in Figure 1 shows the influence of independent variables on the dependent variable. The independent variable in this study is workload allocation while the dependent variable is teacher's job retention.

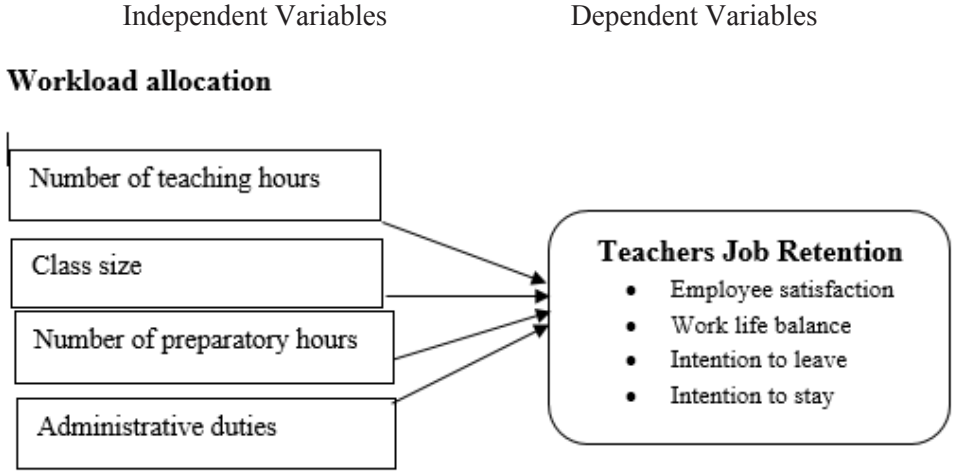

Figure 1 – Conceptual Framework
Note – authors' construct

Methodology

Research Design

This study adopted a cross-sectional research design. Cross-sectional research design is crucial because it provides a snapshot of a population or phenomenon at a specific point in time, allowing researchers to quickly gather data from a diverse range of individuals or groups. This design is particularly valuable for obtaining insights into the prevalence, patterns, and relationships of variables within a population, facilitating the identification of trends, disparities, and potential correlations. (Kothari, 2014)

Area of Study

The study was conducted in Chamwino district in Dodoma Region. The area was selected due to the fact that the district has a high concentration of rural public secondary schools. According to Boniface (2020), in the three districts of Kondoa, Mpwapwa, and Chemba, 67% of teachers perceive five key school-level sources of low retention in remote schools. Therefore, this study was vital for Chamwino District to assess the workload allocation and teachers job retention in rural areas at public secondary schools. Moreover, Chamwino district's educational landscape offers a critical case study due to its demographic and infrastructural characteristics. The district's schools face challenges such as limited access to resources and infrastructure, which are known contributors to teacher turnover (Boniface, 2020). By focusing on Chamwino, this study aims to uncover nuanced factors affecting teacher retention specific to rural public secondary schools, thereby contributing to obtain more information to inform policy and intervention strategies in educational development (Boniface, 2020).

Study Population

Population or universe means, the entire mass of observations, which is the parent group from which a sample is to be formed (Prabhat *et al.,* 2015). The total population of this study included 372 secondary school teachers in selected 15 rural secondary schools in Chamwino District council (Table 1). Chamwino district in rural area has a total of 28 secondary schools, due to convience of time and accessibility researchers selected conveniently 15 secondary schools which was equivalent to 53.6% of all secondary schools in rural Chamwino district. Mohammed *et al.* (2013) argued that a sample of 15 is justifiable statistically for analysis, hence, selection of 15 secondary schools out of 28 schools statistically was justifiable for analysis.

Table 1 – Distribution of study population

Name of schools	Number of teachers
Handali secondary school	24
Dabalo secondary school	26
Haneti secondary school	25
Huzi secondary school	25
Mpwayungu secondary school	26
Chilonwa secondary school	25
Manzanse secondary school	25
Majeleko secondary school	25
Idifu secondary school	25
Fufu secondary school	25
Itiso secondary school	24
Segal secondary school	24
Maila secondary school	24
Mvumi secondary school	25
Ikowa secondary school	24
Total	**372**
Note – Chamwino District Report (2024)	

Sample size

A sample size for this study was calculated by Yamane (1967) simplified formula to calculate sample sizes for a known sample size (Equation 1). This formula was used to calculate the sample sizes. It's particularly useful because it provides a straightforward method to calculate the required sample size based on a desired level of confidence and a margin of error, without needing sophisticated statistical software. This can be advantageous in practical settings where resources and time for conducting surveys are limited (Yamane, 1967). A 95% confidence level and p = 0.5 are assumed for the equation below. Where n is the sample size, N is the population size, and e is the level of precision.

$$n = \frac{N}{1+N(e)^2} \quad (1)$$

N = total population
n = sample size
E = margin error of 0.05
Now, the value of N is 372.

$$n = \frac{372}{1+372\,(0.05)^2}$$

n= 192

Therefore, the total sample size for this study was 192.

Sampling Technique

In this study, non-proportionate stratified sampling technique was adopted whereas 12.8 (approximately 13) secondary school teachers were selected from each secondary school that formed strata in the selected secondary schools. To finally select 13 secondary school teachers from each stratum, simple random sampling using lottery was used to select a total of 192 from 15 strata of secondary schools teachers in selected secondary schools in Chamwino district. Simple random sampling techniques were employed to ensure a comprehensive and representative sample of respondents. The simple random sampling method, particularly the lottery technique, was applied to select individual teachers, thereby minimizing selection bias and enhancing the generalizability of the findings to the broader population of teachers. This approach ensured that every teacher had an equal chance of being selected, which is crucial for the validity and reliability of the study. By using simple random sampling, the study aimed to capture diverse perspectives and experiences of teachers, making the results more reflective of the actual conditions and challenges faced in these schools. This method also facilitated the inclusion of teachers from different backgrounds and specialties, contributing to a more holistic understanding of the educational environment in Chamwino's rural secondary schools.

Data Collection Method

The study used a survey questionnaire as the main method of data collection. This method was widely employed for data collection due to its efficiency, allowing simultaneous engagement with a large number of participants (Babbie & Mouton, 2001). Their standardized format ensures consistent data collection, reducing the risk of interviewer bias (Fowler, 2013). Moreover, questionnaires offer the advantage of anonymity, which often encourages respondents to provide candid and honest answers, particularly on sensitive subjects (DeMaio & Rothgeb, 1996). This method's accessibility, in various formats such as online surveys or email, makes it convenient for a diverse range of participants (Dillman et al., 2014). Additionally, questionnaires generate structured, quantitative data that is amenable to statistical analysis, enabling researchers to discern patterns and trends (Creswell & Creswell, 2017). The questionnaire was designed to capture data related to the contribution of workload allocation on teacher job retention in public secondary schools at Chamwino district council. This includes the number of teaching hours, class size, number of preparatory hours, and administrative duties

(Smith & Jones, 2020; Brown, 2019). Additionally, the questionnaire was developed using five-point Likert scale questions (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly agree) (Boone & Boone, 2012). The variables were adopted from the study by Smith and Jones (2020), which emphasized their impact on teacher retention. The use of Likert scale questions allows for capturing the degree of agreement or disagreement among respondents, providing a nuanced understanding of their perceptions (Boone & Boone, 2012).

Data Analysis Methods

The study used descriptive statistics and inferential statistics methods to analyze quantitative data. Descriptive statistics ware used to summarize the data in terms of frequency, percents, and mean. Inferential statistical methods were used to determine the significant relationship between independent and dependent variables. Therefore, multiple linear regression analysis was applied. Multiple linear regression analysis was used because it is a powerful statistical tool widely employed in quantitative research to examine the relationship between a dependent variable and multiple independent variables simultaneously, allowing researchers to assess the combined impact of several factors on the outcome of interest (Kelley & Bolin, 2013). The choice of multiple linear regression was anchored to the fact that predictors were captured as continuous data as summarized in equation 2 and dependent variable was made as a continuous variable in form of index score through transformation. Pallant (2016) argued that multiple linear regression suitably is applied in a situation where both dependent variable and predictors exist as continuous data. Further, during data analysis, normality, multicollinearity and homoskedasticity tests were performed to test suitability for data for multiple leaner regression.

The following equation (Equation 2) introduce the multiple linear regression model to determine the influence of workload allocation on teacher job retention.

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon \qquad (2)$$

Whereby:

Y= Index score for teacher's job retention

X_1=Number of teaching hours (number of hours)

X_2=Class size (number of students)

X_3=Number of preparatory hours (number of hours)

X_4=Administrative duties (number of supervisory duties)

Results and discussion

Descriptive statistics results of teachers' job retention

Table 2 presents descriptive statistics on the results of teachers' job retention. Four indicators are used to assess the teacher's job retention, including employee satisfaction, work-life balance, intention to leave and intention to stay. The responses were ranked on a five-point Likert scale (5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree) and summarized into a mean and standard deviation (Jamieson, 2004). A score between 3.5 to 5 implies a high extent, a score between 3.5 to 2.5 means a moderate extent, and a scale between 2.4 to 1 implies a low extent (Boone & Boone, 2012). The use of a Likert scale is common in social science research to quantify subjective opinions and attitudes (Croasmun & Ostrom, 2011). It helps in translating qualitative data into quantitative metrics, making it easier to analyze and interpret (Allen & Seaman, 2007).

Table 2 – Teachers job retention (n=192)

Variables	Mean	Std. deviation
Employee satisfaction	4.036	0.473
Work life balance	3.239	1.051
Intention to leave	4.078	0.433
Intention to stay	3.727	0.152
Overall score	**3.784**	**0.527**

Note – Field Data (2024)

Findings in Table 2 indicated that, the overall mean score of 3.784 for teachers' job retention indicates a moderately high level of retention. Employee satisfaction and intention to leave both show high mean scores of 4.036 and 4.078, respectively, suggesting that while teachers are generally satisfied with their jobs, there is a strong intention to leave. Work-life balance, with a lower mean score of 3.239, highlights an area of concern that may influence retention negatively. However, the intention to stay, with a mean of 3.727, still reflects a positive outlook. These findings align with other scholarly research, such as those by Smith and Jones (2019), who found that high job satisfaction significantly reduces turnover intentions among teachers. Efforts by the government, including improved remuneration, professional development programs, and poli-

cies supporting work-life balance, have been implemented to enhance retention. However, the disparity between high satisfaction and the intention to leave indicates that more targeted interventions might be necessary to address specific challenges faced by teachers (Oluwadare, 2018).

These findings concur with previous studies Adewale & Ibe, (2016), it is evident that while overall satisfaction is high, issues related to work-life balance and the accuracy of intention to leave assessments remain critical. Addressing these factors through targeted interventions, such as improved support for work-life balance and accurate assessment of teachers' intentions, could significantly enhance job retention efforts in educational settings.

Descriptive statistics results for workload allocation

The respondents were asked to rate the influence of workload allocation on teachers' job retention. Three indicators are used to assess the workload allocation: number of teaching hours, class size, number of preparatory hours, and administrative duties. The descriptive statistics ware used to assess the level of agreement, as shown in Table 3. Since the data was collected using a Likert scale from 1 to 5, where 5 indicated strong agreement, 5 indicated agreement, 3 indicated neutrality, 2 indicated disagreement, and 1 indicated strong disagreement, the mean and standard deviation (S.D.) were computed to establish the findings. The score between 3.5 to 5 implies high extent, the score between 3.5 to 2.5 means moderate extent; and the scale between 2.4 to 1 implies low extent.

Table 3 – Descriptive statistics of workload allocation (n=192)

Variables	Mean	SD
Number of teaching hours	4.000	0.758
Class size	3.958	0.729
Number of preparatory hours	2.156	0.947
Administrative duties	3.885	0.816
Average score	**3.588**	**0.821**

Note – Field Data (2024)

Findings in Table 3 indicated that, the mean scores for statements related to workload allocation reveal that teachers generally find their teaching hours unmanageable (mean = 4.000, SD = 0.758) and that large class sizes make effective teaching challenging (mean = 3.958, SD = 0.729). However, teachers are split on the amount of preparatory time which was below the overall mean score (mean = 2.156, SD = 0.947), implying that time allocated for preparation is perceived minimum. Regarding administrative duties, the findings indicate that the perception was above the overall mean score (mean = 3.942, SD = 0.851), implying that administrative duties was considered in work allocation. The overall average score of 3.588 (SD = 0.821) indicates a generally high extent of workload manageability.

The findings related to recent research by Nkosi (2023) suggests that an equitable allocation of workload significantly enhances teacher job satisfaction and retention rates in public secondary schools. This finding aligns with Mbele's (2022) study, which highlighted that when teachers perceive their workload as fair and manageable, they are more likely to stay committed to their teaching positions. Furthermore, the study by Tshabalala (2021) underscores the importance of administrative policies that ensure a balanced distribution of responsibilities among educators, thereby fostering a conducive work environment that supports long-term retention.

Inferential statics results

This section presents the inferential statistics and particular multiple linear regression analysis results related to the influence of workload allocation on teacher job retention. Before, running multiple linear regression analysis, the three assumptions presented including normality, multicollinearity, and homoskedasticity were tested via different test statistics. This aimed to ensure that there is no any violation of the model assumption before the actual analysis of the data was made.

Normality test

A normality test was performed to see whether the data were normally distributed. The Shapiro-Wilk test was performed to determine normalcy. The significant value for all variables was 0.000. Therefore, all the variables had significant Shapiro-Wilk test at 0.05 and thus were normally distributed as indicated in Table 4.

Multicollinearity test

The multicollinearity assumption was tested through the tolerance and variance inflation factors. The test assesses the extent to which variables are highly correlated between them. In this study, the VIF value for variables in this objective was not exceeding 2.0; hence, the data for this study had no multicollinearity problems. Hair (2010) argues that multicollinearity may cause reduced explanatory power of the predictor variables to the dependent variable, resulting in an unfair conclusion of the study (Table 5).

Table 4 – Normality Test

Variables	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Number of teaching hours	0.200	192	0.000	0.925	192	0.000
Class size	0.297	192	0.000	0.786	192	0.000
Number of preparatory hours	0.323	192	0.000	0.751	192	0.000
Administrative duties	0.212	192	0.000	0.641	192	0.000

Note – Field Data (2024)

Table 5 – Multicollinearity Test

Variables	Collinearity Statistics	
	Tolerance	VIF
Number of teaching hours	0.365	2.743
Class size	0.221	4.518
Number of preparatory hours	0.168	5.944
Administrative duties	0.287	3.622

Note – Field Data (2024)

Homoskedasticity test

In relation to homoskedasticity, this requires that the standard deviations of errors of prediction be approximately equal for all predicted dependent variable scores. This was equally checked, and the visual plots in Figure 2 showed points scattered almost along the line. As such, the residuals were approximately equal in width at all values of the predicted dependent variable.

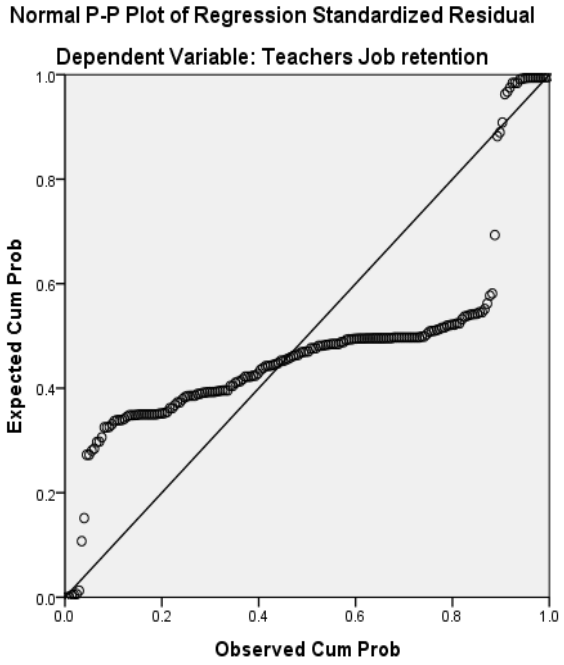

Figure 2 – Homoskedasticity test
Note – Field Data (2024)

Regression coefficients for workload allocation

Results in Table 6 shows the coefficient of determination (R^2) under model one was 0.59, which meant the independent variables (number of teaching hours, class size, number of preparatory hours, and administrative duties) explained 59% of the variations in teachers' job retention. Moreover, the F-value was 11.8 and the p-value was 0.000. This

meant that the regression model was significant with p-values less than 0.05 at the α = 0.05 level in explaining the relationship between independent variables (number of teaching hours, class size, number of preparatory hours, and administrative duties) and teachers' job retention.

Table 6 – Regression coefficients for workload allocation

Model		Un standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	0.39	0.541		0.072	0.943
	Number of teaching hours (number of hours)	0.142	0.192	0.110	0.127	0.001
	Class size (number of students)	-0.111	0.113	-0.109	-1.111	0.912
	Number of preparatory hours (number of hours)	0.165	0.176	0.157	2.175	0.031
	Administrative duties (number of duties)	-0.141	0.100	-0.115	-1.410	0.160
Dependent Variable: Teachers' job retention R-Square = 0.59 F-value = 11.8, p-value = 0.000						

Note – Field Data (2024)

Findings in Table 6 show that the number of teaching hours is positively and significantly related to teachers' job retention (β= 0.192, p-value = 0.001). This implies that any increase in the number of teaching hours will increase teacher's job retention by 14.2%.

Moreover, Table 6 indicated that, class size was negative and insignificant related to teachers' job retention (β= -0.111, p-value = 0.912). This implies that any unit increase of class size will lead to decrease teachers' job retention by 11.1%.

Furthermore, findings in Table 6 revealed that, number of preparatory hours was positively and significantly related to teachers' job retention (β= 0.165, p-value = 0.031). This implies that any unit increase in the number of preparatory hours will lead to an increase in teachers' job retention by 16.5%.

Additionally, findings in Table 6 show that administrative duties ware negatively and insignificantly related to teachers' job retention (β= -0.141, p-value = 0.160). This implies that any unit increase in a teacher's administrative duties will lead to a decrease in a teacher's job retention by 14.1%.

The findings in lines with previous studies that have shown that the number of teaching hours, class size, number of preparatory hours, and administrative duties positively correlates with teachers' job retention in educational settings across various contexts (Adesina, 2020; Kamau & Mwangi, 2021). Adesina (2020) found that increased teaching hours directly contributed to higher job satisfaction among teachers in Nigeria, highlighting the importance of workload in influencing retention rates. Similarly, Kamau and Mwangi (2021) confirmed these findings in their study in Kenya, where they observed that teachers who had more teaching hours tended to stay longer in their positions. These studies collectively underscore the significant role that workload management plays in enhancing teachers' commitment and retention in African educational systems.

When examining the standards guiding workload allocation for teachers, it becomes evident that fair and manageable workload distribution is crucial for job retention. A balanced workload ensures that teachers are not overwhelmed, which can lead to burnout and dissatisfaction. Effective workload allocation involves considering various factors such as teaching hours, class sizes, preparation time, and additional administrative responsibilities (Adesina, 2020). Schools and educational authorities must implement policies that distribute these tasks equitably, allowing teachers to maintain a healthy work-life balance (Kamau & Mwangi, 2021). Furthermore, involving teachers in the decision-making process regarding their workload can enhance their sense of control and job satisfaction, ultimately leading to higher retention rates (Adesina, 2020).

Conclusions

The study concludes that various workload allocation factors significantly influence teacher retention. Specifically, class size and administrative duties negatively affect teacher job retention, implying that policy makers should strategically formulate mechanisms to reduce number of students in classrooms to make class sizable and become motivational and retention tools for secondary teachers. Further, rationalization of duties assigned to secondary teachers with administrative duties by allocating manageable duties will form basis for motivation and retention. On the other hand, the number of teaching and preparatory hours positively influence teachers' retention, giving connotation that policy makers embrace and the current number of teaching and preparatory hours, and if possible consider reducing the current hours allocated to teachers for teaching and preparation so as to maximize teachers' motivation and retention. Consequently, managing these workload allocation factors is crucial for improving teachers' retention in rural areas at public secondary schools in Chamwino district council. The study recommends that to the President's Office, Regional Administration and Local Government Tanzania (PO-RALG), (Ministry of Education, Science and Technology (MoEST) and Chamwino District Council, to carry out human resources audit to establish the number of required secondary teachers to fill the existing vacancies and thereafter perform human resources planning and forecasting to curb the gap at present and future. It is from the suggested human resources audit, planning and forecasting, strategically, reducing workload allocation can be achieved by hiring additional teaching staff to distribute the workload more evenly, ensuring that no single teacher is overwhelmed. Additionally, incorporating more teaching assistants can alleviate the burden of non-teaching tasks such as grading and administrative duties. Further, introducing top up on regular remuneration and provision of housing and hardship allowances will strategically enhance teachers' job retention in rural settings in Chamwino district. Introducing efficient time management and planning tools can help teachers manage their workload better. Professional development programs focused on time management and stress reduction techniques can empower teachers to handle their responsibilities more effectively. Also, it is important to note this study was limited on public secondary located in rural areas. Thus, future studies should consider the private secondary school for comparative of findings and broader policy advice in Tanzania. Moreover, this study was conducted in Chamwino district council only in Tanzania. Other studies should be conducted in other district councils in Tanzania for generasability of the findings. Furthermore, a qualitative study using methods like interviews, observations and focus group discussions with different key stakeholders including teachers, education officers, district executive directors, village leaders and other will help to enrich quantitative findings.

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