



## THE SOCIO-ECONOMIC FACTORS INFLUENCING TEACHER ENROLLMENT IN UNDERGRADUATE AND POSTGRADUATE PROGRAMMES IN ZAMBIA

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### Abstract:

The study focused on the socio-economic factors influencing teacher enrolment in undergraduate and postgraduate programmes in Zambia. It employed Human Capital Theory and a mixed-methods approach. A sequential exploratory research design was adopted for the current study. Data were collected from six provinces and comprised a total of 240 respondents. A questionnaire and interview guide were used to collect data. Qualitative data underwent thematic analysis, while quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) to generate frequencies and percentages. Multiple regression and T-test were also used to test the hypothesis. The study reveals that socio-economic factors significantly influence teacher enrolment in education programs in Zambia. Key factors such as Economic Affordability (EA) and Availability of Scholarships (AS) are highly influential, as shown by multiple regression analysis indicating significant positive relationships (EA:  $\beta=0.597$ ,  $p=0.016$ ; AS:  $\beta=0.418$ ,  $p=0.004$ ). Other significant factors include Socio-economic Background of Teachers (SBT:

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$\beta=0.665$ ,  $p=0.033$ ), Government Support Programmes (GSP:  $\beta=0.316$ ,  $p=0.002$ ), Perception of Career Advancement Opportunities (PCAO:  $\beta=0.798$ ,  $p=0.000$ ), Study Leave Opportunities (SLO:  $\beta=0.676$ ,  $p=0.037$ ), Cultural and Social Norms (CSN:  $\beta=0.227$ ,  $p=0.009$ ), and Family Support and Responsibilities (FSR:  $\beta=0.612$ ,  $p=0.000$ ). Challenges such as financial constraints, lack of government support, and work-life balance were identified as significant barriers to enrolments in postgraduate programmes. Recommendations included: implementing financial support, offering flexible learning options, promoting the benefits of further education, and establishing support networks with mentorship.

**Keywords:** socio-economic factors, teacher enrolment, undergraduate programmes, postgraduate programmes, Zambia

## 1. Introduction

The main purpose of this chapter is to introduce the concept of this research paper, which is the socio-economic factors influencing teacher enrollment in undergraduate and postgraduate programs in Zambia. The study focused on the socio-economic factors that influence teacher enrollment in Zambian undergraduate and postgraduate programmes. The study used a mixed-method approach to provide a comprehensive and holistic view of the complex factors that influence teacher enrollment decisions, combining quantitative and qualitative data to gain valuable insights into the issue.

### 1.1. Background to the Problem

Education is the cornerstone of societal development and progress, and teachers play a pivotal role in shaping the future of a nation. It is widely acknowledged that improving the country's education system requires promoting teacher quality (Harris & Sass, 2011). In Zambia, as in many developing countries, the availability of qualified teachers and the quality of education play a critical role in shaping the nation's socio-economic development. Ministry of Education (1996) confirms that the role of teacher education in education is critical for ensuring the quality and effectiveness of the educational system both on the global and national front. On the global front, UNESCO reports that well-trained teachers are critical to achieving Sustainable Development Goal 4 (SDG 4) on quality education and lifelong learning opportunities for all (UNESCO, 2019). This emphasizes the importance of investing in professional development programmes to provide teachers with the necessary knowledge and skills. Furthermore, the United Nations emphasizes the importance of quality teacher training in promoting sustainable development, global citizenship, and cultural diversity in its 2030 Agenda for Sustainable Development (United Nations General Assembly, 2015).

On the national front, the Ministry of Education in Zambia also recognises the centrality of teacher training education in improving overall educational quality. Zambia's National Teacher Policy prioritises investing in ongoing training and support

for teachers to improve their competencies and address diverse learning needs (Ministry of Education Zambia, 2019). The 1996 Educating Our Future policy reaffirmed the emphasis on investing in continuous training and support for teachers to enhance their competencies and address diverse learning needs (Ministry of Education, 1996). Despite this, Zambia faces significant challenges in attracting and retaining skilled educators due to various socio-economic factors highlighted by the MOE (2019) report raising concerns about the quality and sustainability of the education sector. Based on this background, the current study endeavors to investigate multifaceted socio-economic factors affecting teacher education in higher education. Undoubtedly, this may provide an understanding of the socio-economic factors that influence teacher enrollment in these programs, which is critical to addressing this issue and improving the country's overall educational quality.

### **1.2 Research Problem**

Understanding the complexities and barriers to effective teacher training is critical for addressing Zambia's pressing need to improve educational quality and promote sustainable development. Teacher training and the teaching fraternity have been adversely affected by various socio-economic factors such as under-deployment of teachers, low salaries, inadequate resources, social Status and prestige of teaching, career prospects, and opportunities to just mention a few (Chakulimba1986; MOE 2019). These factors pose a significant challenge to the country's education system and have a likelihood of affecting teacher training enrolment at various tertiary levels. Despite socio-economic factors affecting the education system in Zambia, there is a scarcity of comprehensive research that highlights the impact of enrollment in teacher training programmes. It is against this backdrop that the current study intends to investigate socio-economic factors influencing teacher enrollment, as well as their implications for educational quality and the overall development of the country's educational system. As a result, the significance of this research lies in its potential to provide evidence-based insights that will pave the way for more targeted and impactful interventions aimed at addressing Zambia's pressing issue of attracting and retaining skilled educators.

### **1.3 Research Objectives**

**RO1:** To investigate the influence of socio-economic factors on the enrollment of teachers in teacher education programmes in Zambia.

**RO2:** To examine challenges faced by teachers from enrolling in undergraduate and postgraduate degree programs in Zambia.

### **1.4 Research Questions**

**RQ1:** What are the socio-economic factors in the enrollment of teachers in undergraduate and post-graduate programmes in Zambia?

**RO2:** What challenges do teachers face in enrolling in undergraduate and postgraduate degree programs in Zambia?

## 2. Literature Review

The previous chapter of this research paper provided the background of the study, the research problem, the justification of the study, and the research objectives, among others. This chapter will review related empirical literature on the subject matter of the socio-economic factors influencing teacher enrollment in undergraduate and postgraduate programs in Zambia. This chapter will cover the literature review, which includes various themes related to the current study, conceptual framework, and theoretical framework.

Teacher education encompasses the systematic process of equipping educators with the necessary knowledge, skills, and tools to effectively teach students involving various components such as pedagogy, subject knowledge, classroom management techniques, and understanding of diverse student populations (Harris & Sass, 2011). In other words, it refers to the policies and methodologies crafted to furnish educators with the necessary knowledge, attitudes, behaviors, and competencies essential for proficient performance in both school environments and classrooms (Darling-Hammond *et al.*, 2009; Kennedy, 1997).

Teacher education is a critical component of educational development that aims to provide educators with the skills and knowledge they need to excel in their profession. Teacher training encompasses any form of assistance and capacity building that enables teachers and other education personnel to effectively instruct and assess students on the curriculum (Darling-Hammond & Bransford, 2005; Harris & Sass, 2011; Zeichner & Conklin, 2008).

In Zambia, the government is the main provider of education and teacher training. Even though privately owned, it also plays an important role in training qualified teachers who possess the knowledge and skills to teach. Qualified teaching staff members who possess the necessary experience are a valuable asset in a competitive setting. This is particularly crucial for a knowledge-driven education system, where their contribution becomes even more essential for gaining a competitive edge. Teacher education is critical in shaping the education system and ensuring students' overall development. It gives aspiring educators the skills, knowledge, and techniques they need to effectively engage and instruct their students (Banja & Mulenga, 2019; Phiri, 2014). A comprehensive curriculum covering pedagogy. The training is intended to provide teachers with the resources they need to create a positive learning environment, address individual student needs, and promote critical thinking and problem-solving skills in students. Teacher education goes beyond simply disseminating knowledge; it focuses on developing teaching methodologies that cater to a variety of learning styles and abilities (Wheatley, 2002). Teachers in Zambia are currently trained for three and four years at the diploma and degree levels, respectively, in public and private colleges of education and universities, using the same training model as mainstream teachers.

The impact of socio-economic factors on teacher education research is an important area of study that delves into the complex interplay between social and economic conditions and educator preparation. Teacher education programs are critical in providing educators with the skills and knowledge they need to navigate diverse classrooms effectively. However, the socio-economic context in which these programs operate can have a significant impact on them. Income levels, educational attainment, access to resources, and the overall economic condition of a community or region are examples of socio-economic factors. The larger context of the teaching profession has a significant impact on students' interest in the teaching profession. Understanding how these factors influence teacher education is critical for ensuring equitable and inclusive learning environments as well as addressing the unique challenges that teachers in economically disadvantaged areas may face.

Studies suggest that socio-economic status is a strong predictor of academic achievement. Michubu (2013) conducted a study to investigate the impact of socio-economic factors on students' academic performance in public secondary schools in Kenya's Igembe South district. The primary findings of the study indicated that parental education level had no significant influence on students' academic performance. However, it was discovered that parental involvement in their child's education, parental income, and the extent of financial and material support provided to students by their parents had a significant influence on students' academic achievements. Warui's (2013) study also revealed that teachers considered their remuneration levels to be inadequate and an impediment to their productivity effectiveness. The teachers, too, thought the school facilities were inadequate for ensuring their maximum productivity.

In Zambia, various factors affect teachers' education training. These range from lack of legislation, recruitment procedures, teaching and training resources, clear curriculum, ICT, sufficient training periods, and deployment of graduates. A situation analysis conducted in February and March 2021 found that all 12 of Zambia's universities and COEs were lacking in key literacy resources, including books, internet connectivity, and functioning computers (Phiri, 2014).

The current study used Human Capital Theory and a theoretical framework. A theoretical framework is defined as research structures used to state and support the selected study's theories and is considered a correction of interrelated research concepts. The current study will be guided by the human capital theory by economists Gary Becker and Theodore Schultz. The theory emphasizes the idea that individuals' investment in education and training leads to an accumulation of human capital. Human capital refers to the skills, knowledge, and capabilities acquired through education and experience, which enhances an individual's productivity and earning potential (Arviv Elyashiv & Navon, 2021; Sweetland, 1996).

According to UNESCO (2015, p. 21), teachers are the key to achieving all of the Education 2030 agenda. As teachers are a fundamental condition for guaranteeing quality education, teachers and educators should be empowered, adequately recruited and

remunerated, motivated, professionally qualified, and supported within well-resourced, efficient, and effectively governed systems.

The investment in teacher educational training does not give any kind of returns, leading to human capital investments and yields. This is in line with the findings of Maarten *et al.* (2005), who found that the rate of return to schooling equates the value of lifetime earnings of the individual to the net present value of costs of education and that for an investment to be economically justified, the rate of return should be positive, and should be higher than the alternative rate of return.

In the context of this study, Human Capital Theory would be relevant because it focuses on how socio-economic factors, such as income, family background, and access to financial support, can influence an individual's decision to invest in education. According to this theory, individuals make rational decisions based on a cost-benefit analysis of investing in education to improve their future earning potential and career opportunities.

By adopting the Human Capital Theory, the study can explore how teachers in Zambia perceive the benefits of pursuing undergraduate and postgraduate degrees in education. The theory can provide insights into the relationship between socio-economic factors and the decision-making process of teachers when considering higher education enrollment (Sweetland, 1996). It can also help understand how enhancing human capital through advanced education may contribute to the professional development and career advancement of teachers in Zambia. As this study intends to use mixed methods, Human Capital Theory can be valuable in providing a theoretical framework for analyzing both qualitative and quantitative data. The theory's concepts can guide the formulation of research questions, data collection instruments, and the interpretation of results from interviews, surveys, and statistical analyses.

Thus, Human Capital Theory is well-suited for this study as it aligns with the focus on socio-economic factors and the impact of education on individuals' economic and professional outcomes, which are essential elements of teacher enrollment in higher education programs in Zambia.

### **3. Material and Methods**

The current study employed a mixed-method approach, combining both quantitative and qualitative methodologies. This approach, as advocated by Cresswell (2009), integrates the collection, analysis, and synthesis of qualitative and quantitative data, facilitating a more comprehensive understanding of the research problem than either method alone could achieve. This decision was motivated by the belief that the combination of these approaches offers a richer insight into complex phenomena.

Quantitative research, according to Cresswell and Cresswell (2017), emphasizes objective measurements and statistical analysis of numerical data. Conversely, qualitative research, as defined by Barbour (2009) and characterized by Cresswell and Cresswell (2017), focuses on gathering and analyzing non-numerical data to deepen

understanding of concepts and experiences. In this study, quantitative methods were utilized to investigate challenges facing teachers in enrolling in teacher education programs, while qualitative methods were employed to delve into the subjective viewpoints and experiences of participants. This combination aligns with the perspective of Oka and Shaw (2000), who argue that qualitative research seeks to understand the meanings individuals attribute to their experiences and actions.

Research design serves as the structure guiding the entire research process, integrating its various components (Kasonde-Ng'andu, 2013, p. 34). The current study employed Sequential Explanatory Design (SED) was employed, where we began with quantitative data collection and analysis and then followed up with qualitative data collection and analysis. This approach, as recommended by Cresswell (2017), facilitated the comparison and contrast of findings from each method, thereby offering a more comprehensive understanding of the research problem. In this design, closed-ended questions in the questionnaire were utilized to gather quantitative data (Bell, Bryman & Harley, 2022).

The study site encompassed six provinces within the country, namely Lusaka, Luapula, Copperbelt, Southern, Eastern, and North Western provinces. The justification for the universe population selection was that the universe population, as explained by Kasonde-Ng'andu (2013), comprises individuals directly relevant to the research objectives, namely teachers who are potential candidates for enrollment in undergraduate and postgraduate programs. Additionally, by including all eligible teachers within the selected provinces, the universe population included a broad range of individuals with diverse backgrounds, experiences, and perspectives. This allows for a complete exploration of factors influencing teacher enrollment decisions and behaviors.

The current study employed Probability sampling. It refers to a methodical approach used by researchers to select participants from a population, ensuring that each member of the population has an equal chance of being included in the sample. It involves random selection, where every individual in the population has a known probability of being selected (Kahn & Best, 2009). As described by Kombo and Tromp (2006), participants selected through probability sampling are chosen based on their ability to provide rich information and their relevant experience with the research topic.

According to Saunders *et al.* (2016), a sampling frame is a list of people from whom the sample size is taken. In research, it is important to know the total population so that the sample size can be established and represent the entire population. However, the total population is not known; therefore, it was considered infinite. To calculate the unknown population sample size, the following procedure was used:

Confidence level (CL) = 95% or 0.95,  
Population proportion (p) = 0.50 (50%),  
Margin of error (e) = 0.05 (5%).

The formula for calculating the required sample size (n) is:

$$n = (z^2 * p * (1 - p) / e^2) / (1 + (z^2 * p * (1 - p)) / (e^2 * N))$$

Where:

$z$  is the  $z$ -score corresponding to the desired confidence level (95% confidence level corresponds to  $z \approx 1.96$ ),

$p$  is the population proportion,

$e$  is the margin of error,

$N$  is the population size (which we want to find).

In order to solve for  $N$ , the following formula was used:

$z = 1.96$  (for a 95% confidence level),

$p = 0.50$ ,

$e = 0.05$ ,

$N = (1.96^2 * 0.50 * (1 - 0.50)) / (0.05^2 * n)$ ,

$N \approx (3.8416 * 0.25) / (0.0025 * n)$ ,

$N \approx 0.9604 / (0.0025 * n)$ ,

$N \approx 384.16 / n$ .

Therefore, the sample size is 384. The initial sample size was 240 respondents, as shown in Table 1 below.

Table 1: Number of respondents

Province	Lusaka	Copperbelt	Southern	Eastern	North-western	Luapula	Total
District	Lusaka	Chingola	Choma	Chipata	Solwezi	Samfya	240
Number of respondents	40	40	40	40	40	40	

The table shows the number of respondents from six districts across different Zambian provinces: Lusaka, Chingola (Copperbelt), Choma (Southern), Chipata (Eastern), Solwezi (North-western), and Samfya (Luapula). Each district has 40 respondents, totaling 240 respondents.

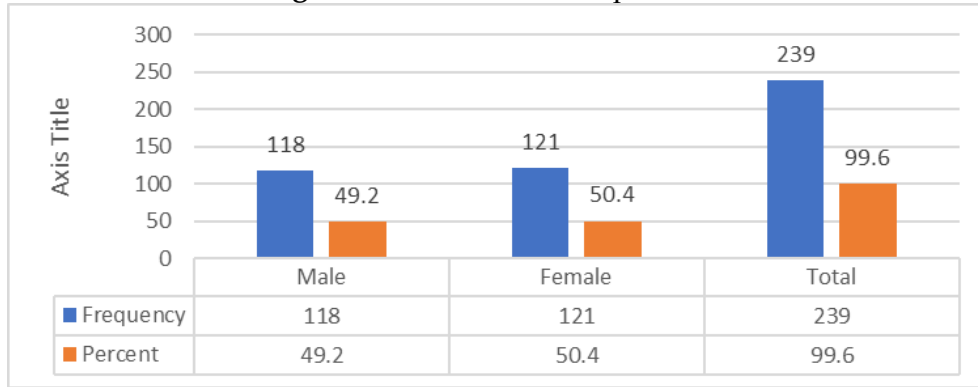
The study used a Likert scale questionnaire to collect quantitative data from 240 teachers and structured interviews with 10 teachers for qualitative insights. Quantitative data was analyzed using SPSS with  $t$ -tests, multiple regression, and Pearson correlation. Validity was ensured through careful design and pilot testing, while reliability was enhanced via standardized procedures and triangulation. Ethical guidelines, including voluntary participation and confidentiality, were followed. Despite delays and financial constraints, the study adapted by using telephone interviews to maintain data quality.

#### 4. Characteristics and Biographical Data of Respondents

Biographical data of respondents include gender, marital status, and educational qualifications.



**Figure 1: Gender of the respondents**



The findings illustrate the demographic distribution of teachers participating in the study across various provinces and genders. In Lusaka, there were 20 male and 20 female respondents, totaling 40. In the Copperbelt, 19 male and 21 female respondents were recorded, also totaling 40. Similarly, Southern, Eastern, North Western, and Luapula provinces each had 20 male and 20 female respondents, resulting in 40 respondents per province. Across all provinces, there were a total of 118 male and 122 female respondents, summing up to 240 participants. The slightly higher number of female respondents overall may indicate a trend of more female teachers participating in such studies or potentially reflect the gender distribution within the teaching profession in Zambia. This balanced representation of both genders within each province ensures a comprehensive exploration of educational perspectives and experiences, enhancing the study's validity and applicability to diverse contexts.

**Figure 2: Educational qualifications of respondents**

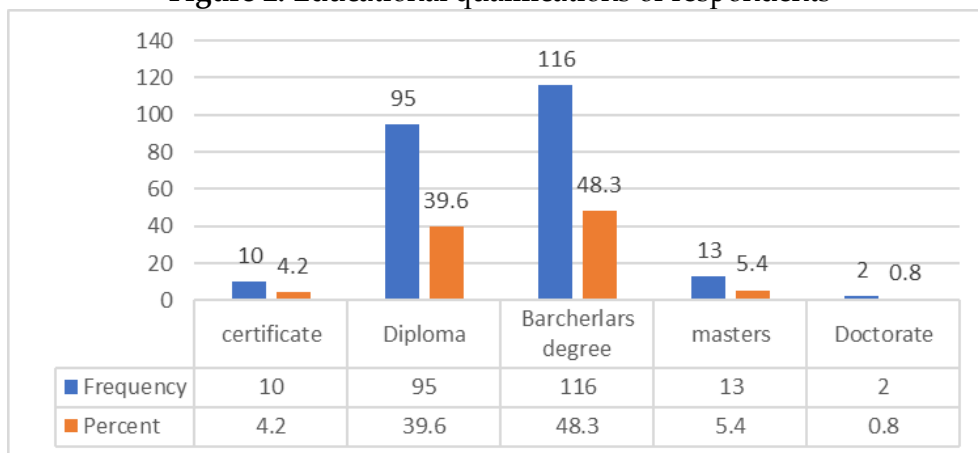


Figure 2 above shows the respondents with Bachelor's degrees comprise 48.3% (116 out of 237) of the total. This suggests that nearly half of the teachers possessed a Bachelor's degree as their highest qualification. Following closely, 39.6% (95 out of 237) held Diplomas, indicating a significant portion of teachers with tertiary education below the Bachelor's level. Additionally, 5.4% (13 out of 237) held Master's degrees, showcasing a smaller but notable portion of teachers with advanced qualifications. Furthermore, 0.8% (2 out of 237) held Doctorate degrees.

(10 out of 237) possessed certificates, serving as the entry-level qualification for teaching in some cases. Finally, a very small percentage, 0.8% (2 out of 237), held Doctorate degrees, indicating a minimal but present representation of teachers with the highest level of academic achievement. The study highlights a varied educational background among the teachers, ranging from basic certificates to advanced degrees. This likely contributes to a rich diversity of perspectives and expertise within the teaching profession.

**Figure 3: Teaching experience**

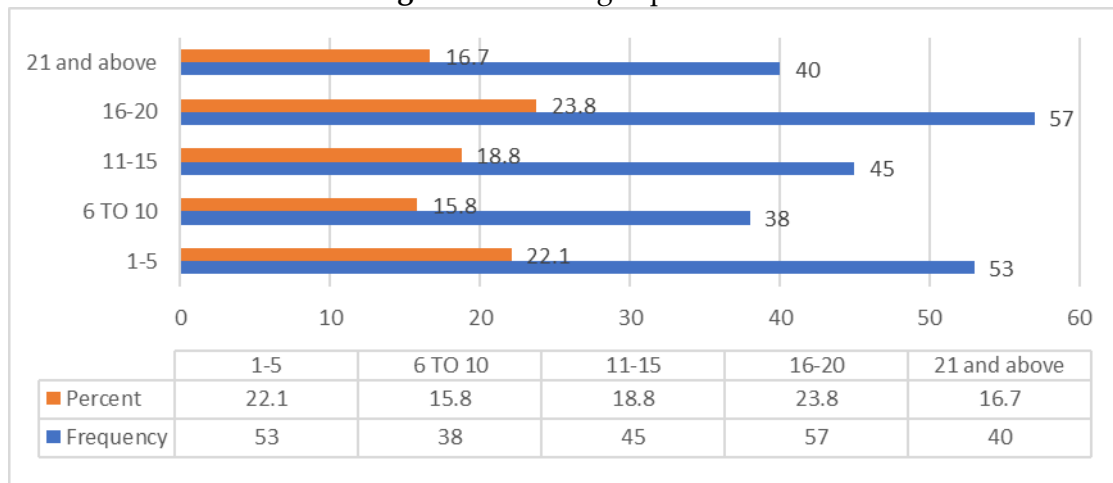


Figure 3 above shows the teaching experience of the participating teachers varied widely. A significant 23.8% (57 out of 239) had 16 to 20 years of experience, while 22.1% (53 out of 239) had 1 to 5 years. Additionally, 18.8% (45 out of 239) had 11 to 15 years of experience, 16.7% (40 out of 239) had 21 years or more, and 16.3% (39 out of 239) had 6 to 10 years of experience.

## 5. Results

This section presents the findings of the current study.

### 5.1 Research Question One: How do Socio-economic Factors Influence the Enrollment of Teachers in Teacher Education Programmes in Zambia?

This research question aimed to investigate the relationship between socio-economic factors and the enrollment of teachers in teacher education programs in Zambia. Responses on the influence of socio-economic factors influencing teacher enrollment in university teacher education programmes in Zambia.

Table 2 below indicates responses from teachers on the influence of socio-economic factors influencing teacher enrollment in university teacher education programmes in Zambia. The frequencies for each individual variable are as follows: Economic Affordability (EA) received 18 responses for strongly uninfluential, 14 for uninfluential, 41 for average, 53 for influential, and 88 for extremely influential.

Availability of Scholarships (AS) garnered 26 responses for strongly uninfluential, 22 for uninfluential, 46 for average, 44 for influential, and 76 for extremely influential. Socio-economic Background of Teachers (SBT) had 22 responses for strongly uninfluential, 25 for uninfluential, 64 for average, 53 for influential, and 51 for extremely influential. Government Support Programs (GSP) received 22 responses for strongly uninfluential, 28 for uninfluential, 38 for average, 57 for influential, and 69 for extremely influential. Perception of Career Advancement Opportunities (PCAO) garnered 9 responses for strongly uninfluential, 20 for uninfluential, 63 for average, 57 for influential, and 63 for extremely influential. Study leaves opportunities (SLO) had 28 responses for strongly uninfluential, 32 for uninfluential, 41 for average, 45 for influential, and 65 for extremely influential. Lastly, Cultural and Social Norms (CSN) received 25 responses for strongly uninfluential, 37 for uninfluential, 54 for average, 59 for influential, and 35 for extremely influential.

**Table 2:** Responses on how socio-economic factors influence the enrollment of teachers in teacher education programmes in Zambia

Dependent Variable	Responses				
	Strongly uninfluential	Uninfluential	Average	Influential	Extremely influential
Economic Affordability (EA)	18	14	41	53	88
Availability of Scholarships (AS)	26	22	46	44	76
Socio-economic Background of Teachers (SBT)	22	25	64	53	51
Government Support Programs (GSP)	22	28	38	57	69
Perception of Career Advancement Opportunities (PCAO)	9	20	63	57	63
Study Leave Opportunities (SLO)	28	32	41	45	65
Cultural and Social Norms (CSN)	25	37	54	59	35

Furthermore, the findings provide insights into the perceived influence of socio-economic factors on teacher enrollment in university teacher education programs in Zambia, as indicated by the frequencies of responses. Notably, "Economic Affordability" (EA) and "Availability of Scholarships" (AS) emerge as highly influential factors, with a substantial number of respondents rating them as influential or extremely influential

(EA: 141, AS: 120). Similarly, "Socio-economic Background of Teachers" (SBT) and "Government Support Programs" (GSP) also garner considerable attention, with significant frequencies of influential or extremely influential ratings (SBT: 114, GSP: 126). In contrast, "Perception of Career Advancement Opportunities" (PCAO) and "Study leave opportunities" (SLO) are perceived as moderately influential factors, with relatively fewer respondents rating them as influential or extremely influential (PCAO: 120, SLO: 110). Interestingly, "Cultural and Social Norms" (CSN) exhibit a mixed influence, with a notable frequency of influential or extremely influential ratings alongside a substantial number of respondents considering them less influential (CSN: 94).

A Multiple Linear Regression Analysis was performed to assess if Economic Affordability (EA), Availability of Scholarship (AS), Socio-economic Background of Teachers (SBT), Government Support Programs (GSP), Perception of Career Advancement Opportunities (PCAO), Study leave opportunities (SLO), Cultural and Social Norms (CSN), and Family Support and Responsibilities (FSR) have an influence of socio-economic factors on the enrollment of teachers (ET) in teacher education programmes in Zambia. The results are shown in Table 2.

**Table 3:** The influence of EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR on ET

Variables	EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR on ET				
	Unstandardized Coefficient	Std. Error	t-Statistic	Standardized Coefficients	Sig.
(Constant)	6.266	.135	7.938		.000
EA	.594	.80	2.430	.597	.016
AS	.417	.93	.184	.427	.004
SBT	.656	.071	2.149	.665	.033
GSP	.287	.081	.224	.316	.002
PCAO	.761	.072	9.917	.798	.000
SLO	.604	.052	.079	.676	.037
CNS	.218	.110	.141	.227	.009
FSR	.605	.115	.133	.612	.000
R	.793	R Square		.638	
Adjusted R Square	0.629	R Square Change		.638	
F-Statistics	1.125	Prob (F-statistic)		0.000	
Df1, Df2	8, 178	Std. Error of Estimate		.49684	
a. Dependent Variable: ET					
b. Predictors: (Constant): EA, AS, SBT, GSP, PCAO, SLO, CSN, & FSR					
Significant at the 0.05 level (2-tailed).					

Source: Fieldwork, 2024.

Table 3 shows the results of a multiple regression analysis between the following independent variables: Economic Affordability (EA), Availability of Scholarships (AS), Socio-economic Background of Teachers (SBT), Government Support Programs (GSP), Perception of Career Advancement Opportunities (PCAO), Study leave opportunities (SLO), Cultural and Social Norms (CSN) to be abbreviated as (EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR) and the dependent variable (ET). The overall regression model is

statistically significant. ( $F(8, 178) = 11.125$ ,  $p - value = .000 < 0.05$ ,  $t = 7.938$ ). Implying that EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR have an influence on ET. Also, results from Table 1 show R value between socio-economic factors (EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR) and ET is .793. The value of R indicates a strong positive correlation between the independent variables i.e., EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR and the dependent variable i.e., ET. This implies that when socio-economic factors increase, the enrollment of teachers (ET) in teacher education programmes in Zambia also increases.

Additionally, the results also in Table 3 show that the adjusted  $R^2$  for EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR to influence ET is .629. The value of adjusted  $R^2$  suggests that 62.9% of the variation in ET is influenced by EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR included in this regression model. This further implies that EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR influence ET by 62.9%. Also, results from Table 1 show that R squared  $R^2$  for EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR to influence ET is .638. The value of  $R^2$  mean that 63.8% of variance in ET is influenced by EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR included in this regression model. This further implies that EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR influence ET by 63.8%.

Besides, the regression results in Table 3 indicate there is a positive and statistically significant relationship between EA and ET ( $p - value = .016 < 0.05$ ,  $t = 2.42$ ,  $\beta = .597$ ). Implying that EA influences ET. This further suggests that when EA increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .597-unit increase, on average, assuming that AS, SBT, GSP, PCAO, SLO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in EA.

Further, the results in Table 3 indicate that there is a positive and statistically significant relationship between AS and ET ( $p - value = .004 < 0.05$ ,  $t = 2.430$ ,  $\beta = .427$ ). Implying that AS influences ET. This further suggests that when AS increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in is associated with a .427-unit increase, on average, assuming that EA, SBT, GSP, PCAO, SLO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in AS.

Moreover, to explain the influence of SBT on ET, the results in Table 1 for the regression model reveal a positive and statistically significant relationship ( $p - value = .033 < 0.05$ ,  $t = 2.149$ ,  $\beta = .665$ ). Implying that SBT influences ET. This further suggests that when SBT increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .665-unit increase, on average, assuming that EA, AS, GSP, PCAO, SLO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in SBT.

Results in Table 3 also reveal a positive and statistically significant relationship between GSP and ET ( $p - value = .002 < 0.05$ ,  $t = .224$ ,  $\beta = .316$ ). Implying that GSP influences ET. This further suggests that when GSP increases, ET also increases.

However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .316-unit increase, on average, assuming that EA, AS, SBT, PCAO, SLO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in GSP.

Also, results in Table 3 indicate a positive and statistically significant relationship between PCAO and ET ( $p - value = .000 < 0.05, t = 9.189, \beta = .798$ ). Implying that PCAO influences ET. This further suggests that when PCAO increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .798-unit increase, on average, assuming that EA, AS, SBT, GSP, SLO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in PCAO.

Further, results in Table 3 indicate that there is a positive and statistically significant relationship between SLO and ET ( $p - value = .037 < 0.05, t = .079, \beta = .676$ ). Implying that SLO influences ET. This further suggests that when SLO increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .676-unit increase, on average, assuming that EA, AS, SBT, GSP, PCAO, CSN, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in SLO.

Results in Table 3 indicate that there is a positive and statistically significant relationship between CNS and ET ( $p - value = .009 < 0.05, t = .141, \beta = .227$ ). Implying that CNS influences ET. This further suggests that when CNS increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .227-unit increase, on average, assuming that EA, AS, SBT, GSP, PCAO, SLO, and FSR are held constant. This further indicates that an average change in ET is associated with a one-unit increase in CNS.

Results in Table 3 indicate that there is a positive and statistically significant relationship between FSR and ET ( $p - value = .000 < 0.05, t = .133, \beta = .612$ ). Implying that FSR influences ET. This further suggests that when FSR increases, ET also increases. However, the coefficient from the model output tells that a one-unit increase in ET is associated with a .227-unit increase, on average, assuming that EA, AS, SBT, GSP, PCAO, SLO, and CNS are held constant. This further indicates that an average change in ET is associated with a one-unit increase in FSR.

In summary, the results of the regression model show that the overall model is significant ( $F(8, 178) = 11.125, p - value = .000 < 0.05, t = 7.938, Adjusted R^2 = .629, R^2 = .638$ ). The model explains 62.9% and 63.8% of variance accounted for by the predictor variables (EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR). Results indicate that EA ( $\beta = .597, p - value = .016 < 0.05, t = 2.43$ ), AS ( $\beta = .418, p - value = .004 < 0.05, t = .184$ ), SBT ( $\beta = .665, p - value = .033 < 0.05, t = 2.149$ ), GSP ( $\beta = .316, p - value = .002 < 0.05, t = .224$ ), PCAO ( $\beta = .798, p - value = .000 < 0.05, t = 9.917$ ), SLO ( $\beta = .676, p - value = .037 < 0.05, t = .079$ ), CNS ( $\beta = .227, p - value = .009 < 0.05, t = .141$ ) and FSR ( $\beta = .612, p - value = .000 < 0.05, t = .133$ ) have an influence on ET of teacher education programmes in Zambia.

Specifically, the results suggest that there is a strong positive relationship between the independent variables (EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR) and the dependent variable ET).

**5.1.1 Relative Contribution of EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR in Influencing ET of Teacher Education Programmes in Zambia**

The study also sought to establish the relative contribution of EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR in influencing ET of teacher education programmes in Zambia. The aim was to establish which among the independent variables i.e., EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR, influence ET of teacher education programmes in Zambia the most. To achieve this, standardized coefficients from a multiple regression analysis output were used, and the ranking of the standardized coefficients was performed as shown in Table 4 below:

**Table 4:** Relative contribution of EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR in influencing ET of teacher education programmes in Zambia

Variables	ET of teacher education programmes in Zambia					Ranking
	Unstandardized Coefficient	Std. Error	t-Statistic	Standardized Coefficients	Sig.	
(Constant)	6.266	.135	7.938		.000	
PCAO	.761	.072	9.917	.798	.000	1
SLO	.604	.052	.079	.676	.037	2
SBT	.656	.071	2.149	.665	.033	3
FSR	.605	.115	.133	.612	.000	4
EA	.594	.80	2.430	.597	.016	5
AS	.417	.93	.184	.418	.004	6
GSP	.287	.081	.224	.316	.002	7
CNS	.218	.110	.141	.227	.009	8
a. Dependent Variable: ET of teacher education programmes in Zambia						
b. Predictors: (Constant), EA, AS, SBT, GSP, PCAO, SLO, CSN, and FSR						
Significant at the 0.05 level (2-tailed).						

Source: Fieldwork, 2024.

Results in Table 4 show that Perception of Career Advancement Opportunities (PCAO) ( $\beta = .798$ ) is mostly significant in influencing the Perception of Career Advancement Opportunities followed by Study leave opportunities ( $\beta = .676$ ), Socio-economic Background of Teachers ( $\beta = .665$ ), Social Influence’s ( $\beta = .657$ ), Family Support and Responsibilities ( $\beta = .612$ ), Economic Affordability ( $\beta = .597$ ), Availability of Scholarship ( $\beta = .418$ ), Government Support Programs ( $\beta = .316$ ), and Cultural and Social Norms ( $\beta = .227$ ). Therefore, Perception of Career Advancement Opportunities mostly influences the ET of teacher education programmes in Zambia.

## **5.2 Research Question Two: What are the Challenges That Deter Teachers from Enrolling in Undergraduate Postgraduate Degree programmes in Zambia?**

This research question focused on the Qualitative Findings on the Challenges that deter teachers from enrolling in post-graduate degree programmes in Zambia. The findings highlight various themes such as Financial Constraints, Lack of Government Support and Recognition, Work-Life Balance, Limited Access to Postgraduate Programs, Lack of Professional Development Incentives, Inadequate Support Structures, and Family and Personal Commitments.

The following were the themes that emerged under this research question.

### **Theme One: Financial Constraints**

Many teachers struggle with financial burdens, including outstanding undergraduate loans, which deter them from taking on additional expenses associated with postgraduate education. Some teachers indicated financial challenges, such as loans. They mentioned that they are still paying back loans they obtained to finance their undergraduate studies.

*"Many teachers, including myself, face financial challenges such as loans. We're still paying back loans obtained to finance our undergraduate studies." (QNW8)*

*"Some of us are dealing with financial struggles, like loans to pay school fees for our children and support our families in general. I can only say that we are barely surviving on loans. Therefore, I can never manage to go for further studies." (LP 2)*

### **Theme Two: Lack of Government Support and Recognition**

Teachers feel discouraged when postgraduate qualifications are not recognized or supported by the government, leading them to question the value of pursuing further education. Others expressed dissatisfaction with the lack of government support and recognition for postgraduate qualifications. They questioned the purpose of pursuing such programs.

*"I've heard from fellow teachers who express dissatisfaction with the government's lack of support and recognition for postgraduate qualifications. They question the purpose of pursuing such programs." (QCB7)*

*"We're not feeling the government's support or recognition for our postgrad qualifications. It makes you wonder, what's the point of going through all that effort?" (QE23)*

### **Theme Three: Work-Life Balance**

Balancing the demands of teaching with the commitments of postgraduate studies proves challenging for educators, often resulting in delayed or abandoned aspirations for further



education. Balancing work responsibilities with academic pursuits is a significant challenge.

*"Balancing my teaching responsibilities with academic pursuits is proving to be quite a challenge." (QNW12)*

*"It's tough trying to juggle teaching and keeping up with my studies. I'm really feeling the strain." (QS17)*

#### **Theme Four: Limited Access to Post Graduate Programmes**

Many teachers, particularly those in remote areas, face limited access to suitable postgraduate programs, hindering their ability to advance their qualifications. Access to suitable postgraduate programs is limited, especially for those residing in remote areas.

*"I've found that access to suitable postgraduate programs is limited, especially for those of us living in remote areas." (L4)*

*"It's hard to find postgrad programs that suit our needs, especially for those of us out in the sticks." (L1)*

#### **Theme Five: Lack of Professional Development Incentives**

Without tangible rewards or career advancement opportunities linked to higher qualifications, teachers perceive little incentive to pursue postgraduate education. The absence of incentives for professional development discourages teachers from pursuing postgraduate education.

*"Without any incentives for professional development, many teachers, including myself, feel discouraged from pursuing postgraduate education." (Q2S8)*

*"There's just no encouragement for us to keep learning. It's demotivating." (QS32)*

#### **Theme Six: Inadequate Support Structures**

Teachers lack sufficient guidance and mentorship tailored to their needs as they navigate the complexities of postgraduate education. There's a lack of support networks and resources tailored to teachers pursuing postgraduate studies.

*"I've noticed there's a lack of support networks and resources tailored to teachers like us who are pursuing postgraduate studies." (QCB17)*

*"We could really use more support and resources, you know? It's lonely out here trying to figure things out on our own." (QL21)*

### **Theme Seven: Family and Personal Commitments**

Many educators often prioritize familial obligations and personal well-being over pursuing postgraduate qualifications. Family responsibilities and personal commitments often take precedence over pursuing postgraduate qualifications.

*"Personally, I find that family responsibilities and personal commitments often take precedence over my pursuit of postgraduate qualifications." (LP4)*

*"I have to put my family first, you know? Sometimes that means putting my studies on hold." (L2)*

## **6. Discussion**

The findings of the study on the influence of socio-economic factors on teacher enrollment in university teacher education programs in Zambia provide valuable insights into teachers' perceptions of various influencing factors. The findings show that factors such as Economic Affordability (EA) and Scholarship Availability (AS) are highly influential, with a sizable proportion of respondents rating them as influential or extremely influential. Similarly, Socio-economic Background of Teachers (SBT) and Government Support Programs (GSP) receive significant attention, indicating their perceived importance in influencing teacher enrollment (SBT: 114, GSP: 126). However, Perception of Career Advancement Opportunities (PCAO) and Study Leave Opportunities (SLO) are rated moderately influential, with fewer respondents rating them highly influential (PCAO: 120; SLO: 110).

When considering these findings, it is critical to recognize their broader implications for educational policy and practice. To begin, policymakers should prioritize strategies that increase financial accessibility, such as scholarship programmes and subsidized tuition fees, in order to reduce the barriers posed by economic constraints (Johnstone, 2006; Johnstone & Shroff-Mehta, 2003). Furthermore, efforts to improve government support programmes and address socio-economic disparities among teachers are critical to promoting inclusivity and equity in the education sector (Johnstone, 2006). While career advancement opportunities and study leave provisions are important considerations, they should be supplemented with broader support mechanisms that address socio-economic factors in order to ensure a more comprehensive approach to teacher enrollment. Furthermore, addressing cultural and social norms that may discourage certain groups from pursuing teacher education is essential for promoting diversity and inclusivity within.

The qualitative findings of the study on the challenges deterring teachers from enrolling in postgraduate degree programmes in Zambia reveal multifaceted barriers. Financial constraints, including outstanding loans, hinder teachers from affording the additional expenses associated with further education. Moreover, the lack of government support and recognition for postgraduate qualifications undermines the perceived value

of pursuing higher education, consistent with Shah *et al.* (2024) study on challenges faced by teachers of postgraduate health professions blended learning programs: a qualitative analysis. This study provides profound insights into the daunting challenges that postgraduate blended learning programme teachers encounter in terms of skills, administrative barriers, and faculty resistance. Balancing teaching responsibilities with academic pursuits proves challenging, often resulting in delayed or abandoned aspirations for further education. Limited access to suitable postgraduate programs, particularly in remote areas, exacerbates the difficulty of advancing qualifications, reflecting broader discussions on educational access and equity. Additionally, the absence of professional development incentives and inadequate support structures, including guidance and mentorship tailored to teachers' needs, further hinder their educational endeavors, as discussed in previous studies on teacher motivation and support also highlighted the inadequacy of the incentives to complete the education and the inadequacy of the rights given in the case of the completion of the education (Çalisoglu & Yalvaç, 2019). Family and personal commitments often take precedence over pursuing postgraduate qualifications, reflecting the complex interplay between professional and personal responsibilities (Beamish, 2019). Addressing these challenges necessitates a comprehensive approach encompassing financial support mechanisms, governmental recognition, efforts to promote work-life balance, enhanced accessibility to educational opportunities, provision of professional development incentives, establishment of robust support structures, and recognition of the importance of family commitments in educators' lives.

Furthermore, based on the findings of the current study into the socio-economic factors influencing teacher enrollment in undergraduate and postgraduate programmes in Zambia, several theoretical implications can be derived, primarily from the perspective of human capital theory which guided the study. Human capital theory suggests that investing in education and training enhances individuals' productivity and contributes to economic growth. In the context of this study, the findings underscore the importance of continuous professional development for teachers, aligning with the human capital theory's emphasis on investing in education to improve workforce skills and effectiveness.

Furthermore, the study's examination of socio-economic factors influencing teacher enrollment, such as economic affordability, scholarship availability, and government support programs, reflects the human capital theory's recognition of the role of socio-economic factors in shaping individuals' access to education and training opportunities (Tittenbrun, 2017). By identifying these influential factors, the study provides insights into the mechanisms through which human capital formation can be facilitated or hindered within the teaching profession.

Additionally, based on the findings of the current study, there is undoubtedly a likelihood of a reduction in teacher enrollment at both undergraduate and postgraduate levels due to various challenges. The implications of reduced enrollment in teacher training education are profound and could significantly affect the education system's

future trajectory, particularly from a human capital perspective. With fewer individuals entering teacher training programmes, there is a risk of exacerbating existing teacher shortages, which could compromise the quality of education provided to students. Research indicates that the quality of teachers is one of the most critical factors influencing student learning outcomes (Hanushek & Rivkin, 2007). Therefore, a decline in the number of trained teachers may lead to diminished educational attainment and hinder the development of human capital in Zambia, perpetuating cycles of poverty and inequality.

The negative impact of socio-economic factors on teacher enrollment further complicates the situation. Socio-economic challenges such as poverty, limited access to educational resources, and inadequate infrastructure can deter individuals from pursuing careers in teaching (Mulenga, 2016). Additionally, mixed perceptions among teachers regarding the benefits of post-graduate teacher training programs may contribute to decreased enrollment. While professional development is essential for enhancing teaching quality and effectiveness, some educators may perceive the time and financial investment required for advanced training as prohibitive, especially in the absence of adequate institutional support (Chisholm & Leyendecker, 2010).

In Zambia, where education plays a crucial role in socio-economic development, the lack of institutional support for in-service teachers to further their education poses a significant challenge. Without adequate support systems in place, such as accessible professional development opportunities, financial assistance, and career advancement incentives, teachers may feel discouraged from pursuing further education (World Bank, 2019). This lack of investment in teacher development not only impacts on the quality of education but also hampers the country's efforts to build a skilled and knowledgeable workforce capable of driving economic growth and innovation.

## **7. Conclusion and Recommendations**

### **7.1 Conclusion**

In conclusion, this study investigated the socio-economic factors influencing teacher enrollment in undergraduate and postgraduate programs in Zambia, employing Human Capital Theory and a mixed-methods approach. Adopting a sequential exploratory research design, data were gathered from 240 respondents across six provinces using questionnaires and interviews. Thematic analysis was applied to qualitative data, while quantitative data underwent analysis using SPSS, generating frequencies, percentages, and employing multiple regression and t-tests to test hypotheses. The current study highlights the critical impact of socio-economic factors on teacher enrollment in Zambia's education programmes, identifying Economic Affordability (EA) and Scholarship Availability (SA) as the most influential elements. These insights highlight the urgent need for policies that enhance financial accessibility and government support to mitigate socio-economic disparities. Additionally, addressing challenges such as financial constraints, lack of recognition for postgraduate qualifications, and balancing

professional and personal responsibilities is essential. Implementing comprehensive support mechanisms is vital for promoting continuous professional development of teachers, improving education quality, and fostering human capital growth in Zambia.

## 7.2 Recommendations

- 1) Financial Support: Provide scholarships and grants for teachers.
- 2) Flexible Learning: Offer adaptable study schedules and online courses.
- 3) Awareness: Promote the benefits of further education for teachers.
- 4) Support Networks: Create mentorship programs to assist teachers in their studies.

## Conflict of Interest Statement

The authors declare no conflicts of interest.

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