Comparative Analysis of Equity in Teachers' Grade Promotions
Insights from the Implementation Approaches in Collective Bargaining Agreement of Trade Unions in Kenya

Livanze Mwani
Masinde Muliro University of Science and Technology, Kakamega, Kenya
ORCID ID: https://orcid.org/0000-0003-1551-8737
Email: ronaldlivanze@gmail.com
&
Epari Ejakait, PhD
Masinde Muliro University of Science and Technology,
Department of Educational Planning and Management,
ORCID ID: https://orcid.org/0000-0003-3895-9623
Email: eejakait@mmust.ac.ke
&
Paul Akumu Ogenga, PhD
Masinde Muliro University of Science and Technology,
Department of Educational Planning and Management,
ORCID ID: https://orcid.org/0000-0002-4543-2646
Email: pogenga@mmust.ac.ke

Abstract
Equity in teachers' grade promotions was targeted through an inevitable paradigm shift in policy from the "scheme of service" approach to a "Career Progression Guideline" approach for trade unions in Kenya. However, the use of both approaches at post-primary level, in the implementation of the 2017-2021 Collective Bargaining Agreement of unions, espoused differences based on years of service of the teachers. The objective of this comparative study was to determine whether the differences were significant. It was guided by the Socialist economics of education theory and a conceptual framework modified from Walton and McKersie's behavioural theory for labor negotiations. A comparative research design with a sample of 1,452 respondents drawn from a study population of 5,506 gave a response rate of 100 % of questionnaires. Systematic random sampling selected teachers in each union based on the chronological order of their TSC numbers; while purposive sampling selected school principals was utilized to ensure equal representation from all categories as TSC directors and union secretaries were selected through saturated sampling procedure. The study enhanced content validity while internal consistency reliability of instruments established a Cronbach alpha co-efficient of 0.877. In data analysis, pairwise correlation established plausible interactions between years of service, union membership and promotions while logistic regression analysis revealed that KUPPET union was the one reducing the odds of promotion by up to 23.46% by controlling for teacher-level and school-level characteristics. Gini permutation test results ($p \geq 0.05$) established lack of statistically significant difference in equity between the two unions; hence, grade promotion was found to be marginally equitable in KUPPET as compared to KNUT union with gini coefficients of 0.0567 and 0.0698 respectively for the period 2017-2021. Consequently, the research article recommends the harmonization of the two approaches into one and the demarcation policy of membership of teachers in post-primary to one union only.

Key words: Equity; Kenya; Collective Bargaining Agreement; Scheme of Service; Career Progression Guidelines; KUPPET; KNUT

Introduction

The Labor Relations Act (2007) defines a Collective Bargaining Agreement (CBA) as a foundational legal agreement made and signed between an employer and employees for all issues related to grade promotion of workers and other general working conditions for a specific period of time (Republic of Kenya, 2007). Employees are represented in the CBA negotiation by their respective trade union and it operates on the principle of "equal pay for equal value of work done". The registrar registers the CBA in the Employment and Labor Relations Court (ELRC) within fourteen days of its reception. In order to alleviate ambiguity in equity, a CBA characteristically gets operationalized by a single implementation approach in grade promotion of employees during its lifespan (Lindy, 2011; Labor Relations Act, 2007). Most of the countries that utilize the criterion of CBAs for implementation of grade promotions have a single approach in its operationalization for purposes of enhancing equity.

In view of the foregoing, this research article focuses on Kenya because it had two independent approaches implementing the same CBA for the 2017-2021 period in post-primary. The Scheme of Service (SoS) and the Career Progression Guideline (CPG) approaches were used to concurrently implement the 2017-2021 CBA in Kenya for post-primary teachers in KNUT and KUPPET unions respectively. In its literature review, the paper considers CBA implementation approaches in grade promotion for two developed countries and compares and contrasts them with two other developing countries in Africa and identifies the existing gap for Kenya for this study. For the developed countries, the study sampled one that initially had single approach but transcended to several approaches and another that had two approaches. However, for developing countries, it focused on a country that had a three-way approach and the other one that had no approach at all.

Literature Review

In the United States, CBAs were relied upon by labor unions to dictate a framework for working conditions, which traditionally embraced the singularity of implementation approach on grade promotion by having productivity and output as functions of years of service of teachers (Bennett, 2014). The maximization of this approach led to more grade promotions to higher cadres. Using test scores of 14,000 fourth graders out of 100,000 study population, Eberts and Stone (1984) made one of the first attempts to empirically evaluate the impact of unionization on career progression, controlling for socioeconomic status factor. Although cross-sectional findings are often affected by unobserved or unmeasured variables that bias results, their study found that scores were 7% higher in influencing the upgrading of teachers professional cadres.

Kleiner and Petree (1988) alternatively created a longitudinal study of the impact of unionization on the same test score results by using state-level data from 1972-1982. In line with the findings of Eberts and Stone (1984), their study showed that unionization had a beneficial effect on test scores depending on the rates at which teachers moved from one cadre to another based on the length of their tenure in service as a result of the use of a single approach in CBAs. However, Nana (2017) established that as of 2014 the union density in United States had contrastingly dropped compared to the 1950s due to redundancy in grade promotion of tutors as a result of change in CBA implementation mode from single approach to multidisciplinary approach. This was during the advent of liberalization in education in the various states which impacted directly on the teaching sector giving rise to a wide range of variations in equity in the promotions. This complicated the ability to determine the states with more equitable distribution of grade promotions except in Miami-Dade County (Florida), Minneapolis and New York which found a direct positive relationship between the negotiated CBAs and the progression of tutors in their teaching cadres by sticking with single approaches in implementations as determined by case studies of Jones-White (2004), Fuller, Mitchell & Hartmann (2000) and Terry (2010) respectively.

Australia had two-way approach in grade promotion of tutors based on CBA implementation with the modern awards approach structured in annual but small-sized equal awards of promotions for unionized teachers and the external regulator approach which was state controlled without involvement of the unions with no specific timelines of promotions for both unionized and non-unionized teachers operating in freelance mode with many but spontaneous promotions (Traxler, 1995). The study established that the two approaches complicate the ability to determine the exact levels of equity in grade promotions with an inferior establishment that 36% of teacher employees were covered by Modern Awards through unions, 23% directly covered by the awards without any affiliation to unions while the remaining about 41% catered for promotions through the state-provided approach.

In South Africa, the unions historically had three- tier approach in grade promotions based on factors of ethnicity, language and location within a province which had no quantifiable significance on equity. However, the black educators felt

that working together would yield better results than acting alone in securing grade advancements they deserved after so many years of service (Heystek, Lethoko, 2001). Perhaps a case example of lack of any CBA-based approach in grade promotion was witnessed in Mauritius in Africa by Hollup (2004) which lacked significant authority and room for collective bargaining. The unions could try to have their 'voice' heard by making proposals, submitting memoranda, and protesting decisions that lessen or aggravate their terms of service. Nonetheless, they persisted in their efforts to protect their members' rights and benefits, such as paid time off, input into the transfer exercise, workload, length of service in a job group required for promotion, promotion eligibility, promotion equity, and funding for teachers' post-degree education. The study established that without CBAs the unions were ineffective in negotiating for career progression of their members based on their years of service. Instead, grade promotion was found to be in preference to seniority of membership to unions through nepotism.

According to research conducted in Nigeria by Akinwunmi (2000) and Ejiogu (1990), a significant grade advancement that assures wage gain is the number one aspiration of low-income teachers. If instructors in Nigeria are promoted to higher grades in direct correlation with years of experience, the tendency may have multiple causes and effects on grade promotions. In Kenya, a study by Agola (2016) in unpublished Master's Thesis on the effect of teachers' trade union activities on performance of teachers in selected public primary schools in Nairobi County showed that one of the key objectives of teachers' trade unions was to fight for grade promotions of teachers. However, it failed to account for the degree of equity in the grade promotions influenced by unions in the wake of the two-way implementation approach of the CBA for the 2017-2021 period. Whereas the scheme of service approach was used by KNUT union, the career progression guideline approach was favored by KUPPET, both of which shared the same 2017-2021 CBA and were applicable to post-primary teachers. Given the fact that all the studies in the literature reviewed on years of service for teachers established that CBAs have an effect on the trend exhibited in equity in grade promotion of teachers, this may be either positively or negatively. To this end, this research article endeavored to determine the statistical significance difference between the two approaches.

METHODS
Description of the Study Variables
We used a sample of 1,452 teachers from a study population of 5,506 unionized teachers spread in 13 sub counties in Kakamega County of Kenya as presented in Table 1.

Table 1:   **Distribution of Respondents by Gender and Sub County**

Sub County	Respondents' Gender			Total (Freq.)	Percent	Cum
	Female	Male	Not Indicated			
Butere	83	76	7	166	11.43	11.43
Kakamega Central	60	67	-	127	8.75	20.18
Kakamega East	52	64	-	116	7.99	28.17
Kakamega North	63	89	14	166	11.43	39.60
Kakamega South	48	84	3	135	9.30	48.90
Khwisero	25	36	3	64	4.41	53.31
Likuyani	40	42	1	83	5.72	59.02
Lugari	59	79	8	146	10.06	69.08
Matete	19	39	1	59	4.06	73.14
Matungu	38	53	5	96	6.61	79.75
Mumias East	38	45	6	89	6.13	85.88
Mumias West	32	53	4	89	6.13	92.01
Navakholo	33	36	3	72	4.96	96.97
Not Indicated	6	18	20	44	3.03	100.00
Total	596	781	75	1,452	100.00	

As seen from Table 1, a total of 1,452 teachers completed the respondent questionnaires out of which a slight majority (53.79%) were male and 41.05 % were female.

Probability proportional to size was instrumental in sampling the respondents since it was sensitive to teachers in all the sub counties as well as all the four categories of post-primary institutions in which the teachers taught with all the desired characteristics of the study while ensuring equal representation from each union. The categories of institutions were national schools, extra county, county and sub county schools. We used a comparative research design to compare equity levels in promotion distribution between the KUPPET and KNUT unions. Research completed questionnaires were instrumental in collecting information from targeted respondents on their union affiliation, years of service in the profession and grade promotion between the years 2017-2021.

Description of the Data

This paper utilized data sets at post-primary from unionized teachers and principals in both KUPPET and KNUT. The study utilized panel data since the same respondents are followed up for five years between 2017-2021 giving promotion data for outcome variable for all the years. We coded promotional grades from the least to the highest with the CPG grading system attaching numerical values to each grade in ascending order. The years of service were grouped in five-year interval from the least to the greatest.

The explanatory variable being years of service were measured on the interval scale along the two union affiliations while the outcome variable being equity in grade promotion was measured on the nominal scale as binary-valued at 1=promoted and 0=not promoted. Gini coefficient aggregate values were utilized to show levels of inequalities in the two promotion distributions for comparison purposes.

Table 2 presents a summary of the variables used in the analysis of the data.

Table 2: **Description of Variables Used in the Analysis of the Data**

Variable	Variable label	Storage type	Scale	Display Format
t23	#Promotion interviews	Byte	Interval	%10.0g
t24d	Interview outcome	Byte	Nominal	%22.0g
t24dx	1=Promoted ½	Byte	Nominal	%14.0g
t24dy	1=Promoted 0/1	Byte	Nominal	%14.0g
t24e	Years of service	Float	Interval	%9.0g
t29x	1=KUPPET 0/1	Byte	Nominal	%9.0g
t29xy	1=KNUT ½	Byte	Nominal	%9.0g

Note. ½=Grade Promotion in KNUT; 0/1=Grade Promotion in KUPPET; t29x=Union Membership

As shown in Table 2, the explanatory variable and number of promotional interviews attended by the applicant teacher was measured on the interval scale while the rest were measured on the nominal scale.

Analysis Techniques

This paper aims at determining the difference in equity in grade promotion of post-primary teachers between the use of scheme of service approach for KNUT and the career progression guideline approach for KUPPET. We performed Pairwise correlation between years of service, union membership and grade promotion to determine plausible interactions to pursue in the regression analysis. A logistic regression analysis was then performed consequently requiring three sequential regression models. The first model fitted years of service (explanatory variable) against grade promotion (outcome variable) per union, while the second model was controlling for teacher-level characteristics and the third model was controlling for both teacher-level and school-level characteristics. Whereas logistic regression models depict the odds (likelihood) of a teacher getting promoted by virtue of belonging to a certain union (either KUPPET or KNUT), we used gini coefficient on the other hand to measure and determine the aggregate values of equity accruable in grade promotion for the two unions. We further deployed the Lorenz curve to show the graphical representation of the two promotion distributions for the two unions for purposes of comparison.

RESULTS

Descriptive Statistics of the Respondents

Table 3 shows the findings of respondents' union membership, grade promotion and years of service for the sample.

Table 3: Descriptive Statistics of Respondents' Union Membership, Grade Promotion and Years of Service

Variable	Variable Label	Frequency	Percentage	Cum.
Union membership	KUPPET	709	48.8	48.8
	KNUT	685	47.2	96.0
	Others	8	0.6	96.6
	None	50	3.4	100.0
	Total	1,452	100.00	
Grade Promotion	Promoted	424	29.2	29.2
	Not Promoted	1,028	70.8	100.0
	Total	1,452	100.0	
Years of service	≤ 5	32	2.2	2.2
	6-10	93	6.4	8.6
	11-15	221	15.2	23.8
	16-20	250	17.2	41.0
	21-25	353	24.3	65.3
	26-30	363	25.0	78.3
	31-35	303	20.9	97.4
	36-40	38	2.6	100.0
	Total	1,452	100.0	

Note. OTHERS = Other unions i.e. KUSNET and KUTT; NONE= Not in any union

Table 3 shows a relatively higher proportion of unionized teachers belonging to KUPPET (48.83%) as compared to KNUT (47.18%). The largest proportion of these respondents (25%) had a teaching experience of between 26-30 years in the profession. The Table further shows that only 29.2% of the research respondents had at least undergone a grade promotion between the years 2017-2021.

Table 4 presents the distribution of these promoted teachers in years of service and union membership.

Table 4: Distribution of Promoted Teachers in Unions Based on Years of Service

Years of Service	Union Membership for Promoted Teachers 2017-2021					
	KUPPET			KNUT		
	Freq.	Percent	Cum.	Freq.	Percent	Cum.
≤ 5	3	0.87	0.87	2	2.63	2.63
6-10	4	1.16	2.03	32	42.11	44.74
11-15	6	1.74	3.77	20	26.32	71.06
16-20	15	4.36	8.13	16	21.05	92.11
21-25	92	26.74	34.87	3	3.95	96.06
26-30	100	29.07	63.94	2	2.63	98.69
31-35	112	32.56	96.50	1	1.32	100.00
36-40	12	3.49	100.00	0	0	0
Total	344	100.00		76	100.00	

	Obs	Mean	Std. Dev.	Min	Max
	2,667	16.798	6.402	3.157	36.452

In Table 4, the mean for years of service was 16.8 years. The minimum number of years of service was 3.16 while the maximum number of years of service for the teachers was 36.45 years, with a standard deviation from the mean of 6.4.

The Table further reveals that out of the total number of 420 teachers who got promotions in post primary institutions between 2017-2021, quite a large proportion were in KUPPET (81.90%) as compared to KNUT (18.10%) and whereas a bigger proportion of the KUPPET promotions were in relatively advanced years of service in the teaching profession of 31-35 years (32.56%), the majority in KNUT promotions were in relatively younger years of service of 6-10 years (42.11%). In addition, the table shows that as years of service increased, KUPPET depicted a gradually increasing trend in promotions while KNUT showed a steadily decreasing trend in the promotions. This contradiction between the two unions suggested a difference in equity in grade promotion among the post-primary teachers based on years of service that was researchable.

The outcome variable underwent correlation with union membership and years of service at alpha=.05 and gave results in Table 5.

Table 3: Correlation Matrix Between Union Membership, Grade Promotion and Years of Service

Variable	t24dy	t24e	t29x
t24dy	1.000		
t24e	-0.037	1.000	
	0.063		
t29x	-0.045*	-0.025	1.000
	0.025	0.194	

Note. t24dy=grade promotion; t24e=years of service; t29x=union membership

From Table 5, results show that Union membership was statistically significant to grade promotion (p≤.05) hence pursued further in the regression analysis.

Logistic Regression Analysis for Grade Promotion and Years of Service

Consequently, three sequential regression models were developed. The first model fitted years of service (Explanatory variable) against grade promotions (Outcome variable). The second model fitted years of service against grade promotion while controlling for teacher-level characteristics. The third model fitted years of service against grade promotion while controlling for both the teacher-level and school-level characteristics. The results of the three models are presented as model 1.3.1, model 1.3.2 and model 1.3.3 respectively in the summarised Table 6.

Table 4: Logistic Regression Odds for the Association Between Union Membership, Years of Service and Grade Promotion

Variable	Variable label	Model 1.3.1 (t24dy) OR (Std. Err)	P	Model 1.3.2 (t24dy) OR (Std. Err)	P	Model 1.3.3 (t24dy) OR (Std. Err)	p
t29x	1=KP,0=KN	.77 (.09)	0.023	1.17 (.16)	0.240	1.00 (.127)	0.989
t24e	Y.o.S	.98 (.01)	0.039	.95 (.01)	0.000	.96 (.009)	0.000
t65	3=C3 grade			.01 (.01)	0.003	.08 (.056)	0.000
	4=C4 grade			.03 (.05)	0.016	.236 (.03)	0.000
t610b	3=EC school					.52 (.11)	0.003
	4=N school					.61 (.13)	0.019
Constant		.23 (.04)	0.000		0.007	.78 (.15)	0.197
N		2,495		2,420		2,408	
LRchi2(df); Value		(2) 8.69	0.013	(14) 240.62	0.000	(6) 159.53	0.00
Pseudo R^2		0.0043		0.1232		0.0827	

Note. KP=KUPPET; KN=KNUT; Y.o.S=Years of Service; t24dy=Grade Promotion; t24e=Years to Promotion; t29x=Union Membership; t65=Designation; t610b= School Category

From Table 6, the first model (1.3.1) reveals that KUPPET union was statistically significant (p=0.023) with membership in KUPPET reducing the odds of promotion by up to 23.46% based on years of service. Whereas this is in line with the overall model (p=0.013), the Pseudo R^2=0.0043 implies that the model only explained 0.43% of variations in KUPPET membership in Kakamega county.

In the second model (1.3.2) while controlling for teacher-level variables, KUPPET membership was statistically insignificant (p=0.240) with a Pseudo R^2=0.1232 showing that the model explained 12.32% variations in the KUPPET membership in the county.

In the third model (1.3.3) while controlling for both teacher-level and school-level characteristics, findings show that KUPPET membership was statistically insignificant (p=0.989) implying that the membership in KUPPET was insignificant on teacher promotions. However, the Pseudo R^2=0.0827 implies that the model explained 8.27% variations in KUPPET membership in the county. Hence, the logistic regression analysis while controlling for both teacher-level and school-level characteristics for this objective show that union membership is insignificant on grade promotion and all significant variables reduce the odds of promotion.

Gini Permutation Test for Union Membership and Promotion Based on Years of Service
The null hypothesis that was used to test this objective was;
H_O: There is no statistically significant difference in equity in grade promotion of post-primary teachers between the application of the scheme of service and the career progression guideline approaches, based on years of service. The Gini Permutation Test was therefore performed for grade promotions based on years of service with the set seed 344 for KUPPET and set seed 76 for KNUT. From the results (p = .194, gini coefficient = 0.0002), since p≥.05 we fail to reject the null hypothesis of equality of the two promotion distributions.

This means that there is no statistically significance difference in equity in grade promotion of post-primary teachers between the application of CPG for those in KUPPET and the application of SoS for those in KNUT based on years of service of the teachers. This means that years of service of a teacher do not have meaningful difference on the levels of equity achievable in grade promotion irrespective of the union a teacher belongs to. This is attributed to the fact that years of service as a variable cannot be improved upon by the teacher through any individual-based effort unlike academic qualification that can be raised through further studies by the teacher or teacher performances that can be improved through better TPAD scores by the teacher. Therefore, years of service as a variable behaves more like a constant irrespective of the union a teacher belongs to and the approach used for grade promotion by such a union.

Gini Permutation test was done for the entire study period 2017-2021 for the generation of coefficients for the two unions for comparison purposes and the results are as shown in Table 7.

Table 75:   Gini Permutation Test Results for the Unions for 2017-2021

Union	Gini coefficient
0=KNUT & Others	0.069759
1=KUPPET	0.0566518

From Table 7, the graphical presentation of the tabulation for the gini coefficients of the two unions is shown in the Lorenz curve represented in Figure 1.
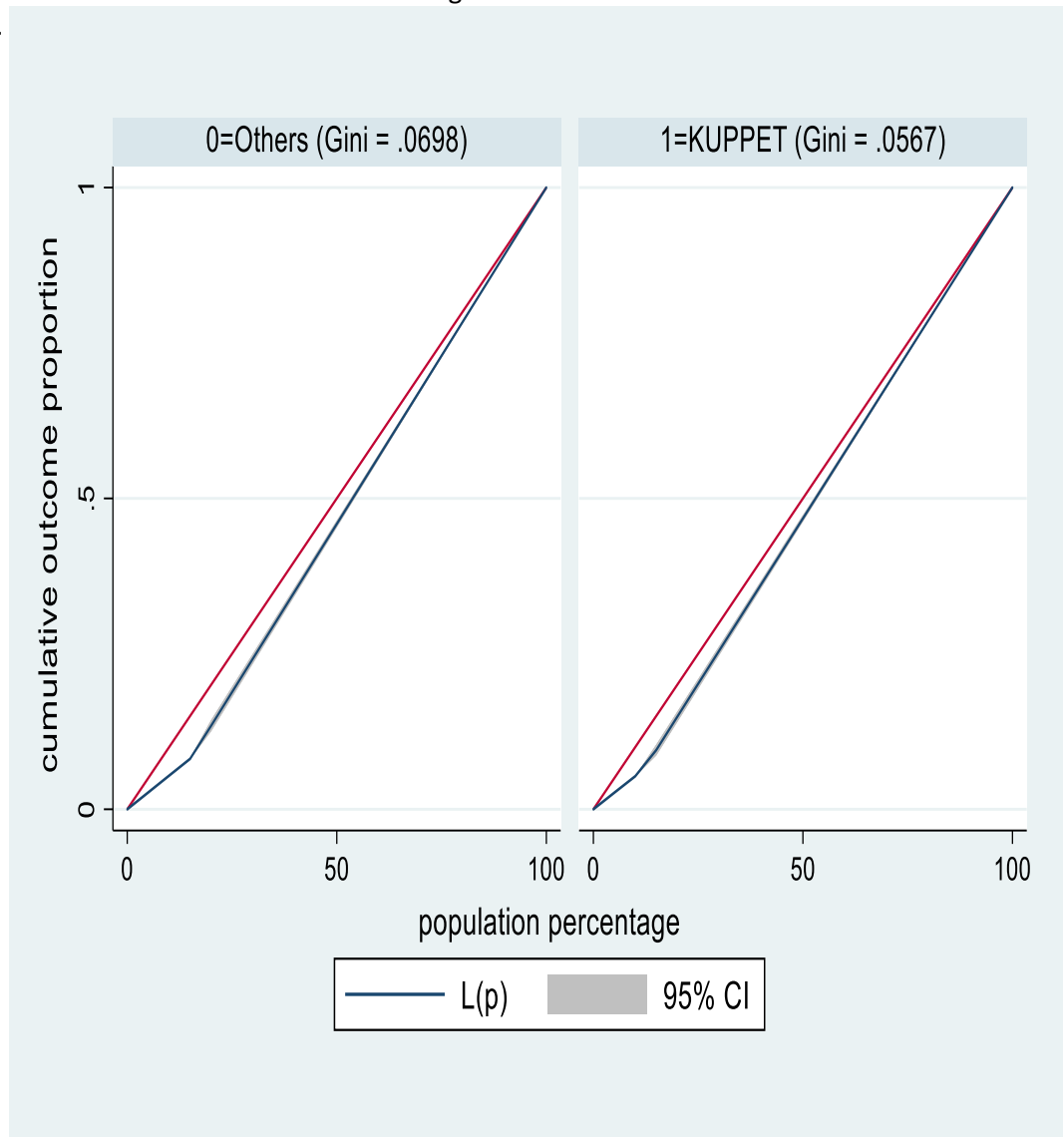

Figure 1: Lorenz Curves of Grade Promotion for Both Unions in Post-Primary
Figure 1 Compares the Lorenz curves for the grade promotion in the two unions side by side, showing that promotions in KUPPET (gini=.0567) appears marginally more equitable than KNUT (gini=.0698). Others imply KNUT and/or KUSNET/KUTT but since for the period 2017-2021KUSNET and KUTT were not yet registered, the others majorly imply KNUT.

Discussion
It was established that membership in KUPPET union reduced the odds of grade promotion by up to 23.46% based on years of service of a teacher. Thereafter, post estimation test of hypothesis for logistic regression was undertaken and its findings revealed a gini co-efficient of 0.0002, $p = .194$ which was not statistically significant at alpha 0.05. The researcher therefore failed to reject the null hypothesis of equality of the two promotion distributions for the two unions. These findings point to the fact that, years of service in the profession had no statistically significant effect on grade promotion of teachers in post-primary institutions in Kakamega County irrespective of the union the teacher belonged to. This further implies that membership to any of the two unions is insignificant on grade promotion as far as years of service are concerned.

The research findings were attributed to the inability or inadequacy of the two approaches used in the implementation of the 2017-2021 CBA to differentiate years of service of the teachers while awarding grade promotions. This implies that both the Career Progression Guideline approach (used for KUPPET) and the Scheme of Service approach (used for KNUT) in the

implementation of the CBA are not differentiated in any way according to the years of service of the teachers in grade promotion. It further implies that the years of service cannot be improved upon (like the other variables), nor altered or manipulated for purposes of achieving more grade promotion irrespective of the approach in use. However, the findings of the study showed that teacher-level characteristics such as designation in school, age and gender as well as school-level characteristic such as school category in terms of whether sub-county, county, extra county or national were significant in explaining the award of grade promotions to the teachers in the county.

Conclusion

From the onset, the research article sought to explore if there existed any statistically significant difference in equity in grade promotion of post-primary teachers between the application of the scheme of service and the career progression guideline approaches for KNUT and KUPPET members respectively, based on years of service. In its findings, it has been established that there was no statistically significant difference in equity in award of grade promotions to post-primary teachers by using the two different approaches for KUPPET and KNUT while implementing the 2017-2021 CBA based on years of service. This implies that the effect of years of service on grade promotion of teachers at post-primary level was not statistically different between KUPPET and KNUT despite the two unions having different implementation approaches in implementing the promotions.

Consequently, the study recommended for the harmonization of the two approaches into one by trade unions in Kenya and the demarcation policy to be set up by the teachers' employer TSC in order to limit the membership of teachers in post-primary institutions to one union only. This will go a long way in enhancing high levels of equity in grade promotions.

References

Agola, H.O. (2016). Effect of Teachers Trade Union Activities on performance of teachers in selected public primary schools in Nairobi County. (Unpublished MBA Dissertation). Nairobi: KCA University.

Bennett, T. (2014). Do union-management learning partnerships reduce workplace conflict? *Employee Relations, 36*(1), 17-32. doi:10.1108/ER-02-2013-0018.

Eberts, W. and Stone, J. A. (1984). *Unions and Public Schools: The Effect of Collective Bargaining on American Education*. Lexington Books.

Kleiner, M. and Petree D. (1988). *Unionism and Licensing of Public School Teachers: Impact on Wages and Educational utput*. In When Public Sector Workers Unionize, 30522. University of Chicago Press ttp://www.nber.org/books/free881.

Lindy, B. (2011). The Impact of Teacher Collective Bargaining Laws on Student Achievement: Evidence from a New Mexico Natural Experiment. *The Yale Law Journal* 120 (5): 113091.

Lovenheim, M. (2009). The Effect of Teachers Unions on Education Production: Evidence from Union Election Certifications in Three Midwestern States. *Journal of Labor Economics* 27(4), pp.1-10.

Nona, B.F. (2016). The Collective Bargaining Agreement and its Legal Effects. *Washington Law Review and State Bar Journal* Vol 17, no. 4, 11-1-2016. Available at: *https://digitalcommons.law.uw.edu/wlr/vol17/iss4/1*

Republic of Kenya. (2007). *Kenya Gazette Supplement No.110.* Nairobi: Government Printer

Walton, R., & McKersie, R. (1991). *A behavioral theory of Labour negotiations: The Ottoman route to state centralization*. Ithaca, NY: IRL Press

Competing Interests:
The authors declares that they have no financial or personal relationships or undue interests that may have inappropriately influenced them in writing this article.

Author(s) contributions:
The researchers concedes that they are the sole authors of this article that creatively contributes to the world of academia, and is not published by any other Journal elsewhere.

Disclaimer:
The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

Ethical considerations statement:
This research article followed all ethical standards for research.