SOCIETY OF EDUCATIONAL RESEARCH AND EVALUATION IN KENYA

Collective Bargaining Agreements Implementation Approaches and Equity in Grade Promotion of Post-Primary Teachers in Kakamega County, Kenya

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Abstract

The use of two different implementation approaches for the 2017-2021 Collective Bargaining Agreement of teachers casted doubts on equity in promotion because each union had its own approach. Given that there were two unions at post-primary level, the purpose of this study was to compare equity accruable between them in Kakamega County. The objective was to determine the difference in equity in grade promotion of post-primary teachers between the use of scheme of service and the career progression guideline approaches based on Teacher Performance and Appraisal Development tool between 2017-2021. It was guided by a socialist economics of education theory. A comparative research design with a sample of 1,569 respondents from 5,923 was used. Systematic random sampling was used to select teachers in each union, purposive sampling for principals and saturated sampling for sub-county directors of education and union secretaries. Through piloting, content validity was enhanced with internal consistency reliability of 0.877. In data analysis, pairwise correlation established plausible interactions of variables at $\alpha = 0.05$ with membership in Kenya Union of Post-Primary Education Teachers being statistically insignificant to promotion (p>.05) through logistic regression analysis. A Gini coefficient 0.0001 found a statistically significant difference (p≤.05) between the two unions with an extra score in 2017, and teaching in extra-county and national schools reducing the odds of promotion to the next grade. It was concluded that promotion was marginally equitable in Kenya Union of Post-Primary Education Teachers than in Kenya National Union of Teachers with gini coefficients 0.0567 and 0.0698 respectively.

***Key Words**: Equity; Grade Promotion; Collective Bargaining Agreement; Trade Union; Scheme of Service; Career Progression Guidelines; Teacher Performance and Appraisal Development*

Introduction

Labour unions began and rose because of exploitative labour practices by employers after the industrial revolution (Hipp & Givan, 2015; Levi, Melo, Weigast, & Zlotnick, 2015). Labour unions were established to aid workers in identifying, airing and solving work related grievances such as low wages & salaries, unsafe working conditions, long working hours and career progression through CBAs. These issues set the stage for the formation of labour unions, with the Working Man's party being the world's first labour party to be formed in 1828 (Jensen, 1956).

The main aim was to anchor Collective Bargaining Agreement (CBA) as a panacea for grade promotion. The CBA concept got into international obligation as law, with the International Labour Organization (ILO) coming up with three conventions linked to the need for enhancement of peace and harmony in industrial labour relations. These are, Freedom of Association and Protection of the Right to organize Convention, 1948 (No. 87), Right to organize Collective Bargaining Convention, 1949 (No. 98) and the Collective Bargaining Agreement Convention, 1981 (No.

154). The conventions bore a common milestone resolution between employers and labour unions of adopting the right to bargain collectively and have legally binding CBAs that would be addressing issues of career progression of workers through grade promotions through the use of a single implementation approach for any given CBA.

As a result, in 1957 in Kenya, the Kenya National Union of Teachers (KNUT) was allowed by the colonial government to form and officially got registered as a trade union in 1959 (Mader, 2012). Kenya Union of Post-Primary Teachers (KUPPET) union was registered in 1998 for teachers in Post-Primary Education (PPE) institutions like secondary schools and other tertiary institutions whose employer was Teachers Service Commission (TSC). The Kenya Union of Special Needs Education Teachers (KUSNET) signed a recognition agreement with TSC as the third union on 3rd March 2021 and therefore did not take part in the operationalization of the 2017-2021 CBA. Further, the Universities Academic Staff Union (UASU) was registered in 2003 as a trade union for lecturers teaching in public universities in Kenya (Republic of Kenya, 2004).

The philosophies and ideals behind the formations of these teacher trade unions in Kenya were deeply rooted in the challenges, successes and lessons learnt by the early labour movement organizations, especially in the western world with the main focus on better remuneration and career progression through collective bargaining processes (Jensen, 1956). The adoption and use of scheme of service (SoS) approach as a single tool of implementation of CBAs on grade promotion of teachers from the onset of CBA criterion on promotions in Kenya since 2005 easily accounted for high equity levels (Code of Regulation for Teachers, 2005). The same tool was transcended into PPE in 2011 as the single approach in CBA implementation on grade promotions.

However, in 2016 following a new job evaluation exercise in the public teaching sector conducted jointly by both Salaries and Remuneration Commission (SRC) and TSC, a recommendation for an inevitable paradigm shift in policy from the "scheme of service approach" to a "career based strategy approach" was made (CBA Reference Manual, 2018). This necessitated the signing of a new CBA between TSC and the teachers' unions, mainly KNUT and KUPPET on 25th and 26th October 2016 respectively. This new CBA was to be implemented with a new single implementation approach known as the Career Progression Guidelines (CPG) (Code of Regulations for Teachers, 2015).

Nevertheless, KNUT successfully protested in court for their members to be reverted back to SoS approach (KNUT Strike notice for 2nd January 2019; TSC petition no. 151 of 2018 dated 31st Dec 2018) while KUPPET continued preferring CPG as its single implementation approach for promotion of its members based on their respective Teacher Performance and Appraissal Development (TPAD) scores for the 2017-2021 period of the CBA. This resulted into the creation of two different, independent and parallel approaches implementing the same CBA to same teachers thus complicating the achievement of equity in promotion especially at PPE level where both unions were domiciled concurrently.

It is not easy to ascertain any statistically significant difference in equity in grade promotion of teachers at post-primary level in Kenya due to the application of the SoS as well as the CPG approaches in the implementation of the 2017-2021 CBA. Whereas CPG was rejected by KNUT on the basis of causing career stagnation, it was preferred by KUPPET on the basis of its strength in enhancing career progression of their members in PPE institutions. On the other hand, whereas SoS was preferred by KNUT on the basis of enhancement of equity in grade promotions of their members, it was rejected by KUPPET.

Compounded by the annual decline in the rate of access to teacher promotions witnessed in secondary schools from 12.9% in 2016 to 5.2% in 2020 in Kenya (Republic of Kenya, 2019b), Kakamega county led with a job stagnation of 15.7 years per grade (Republic of Kenya, 2020b) which is far beyond the ILO recommendation of a baseline of 3 years per grade through recommendation no. 154 of 1981 ILO convention further casting doubts on the effectiveness of the 2017-2021 CBA. The county further had the highest unionized members in both unions KUPPET and KNUT among the counties with the highest stagnation levels in Kenya.

The objective of the study was to ascertain the difference in equity in grade promotion of post-primary teachers between the application of the scheme of service and the career progression guideline approaches of the 2017-2021 Collective Bargaining Agreement, based on TPAD performance of teachers.

The study was guided by the Socialist economics of education espoused by Louis Blank (Colander, 1994) which in this study, revolved about cumulative distribution of teachers promoted in each grade from 2017-2021 to the cumulative distribution of the predictor TPAD performance in percentage scores from lowest to the highest while the conceptual framework depicts the effect of the implementation approach of the CBA (based on TPAD scores) on the outcome variable (equity in grade promotion measured by gini coefficient) controlling for teacher and school variables, as represented in Figure 1 for the interaction of the variables.
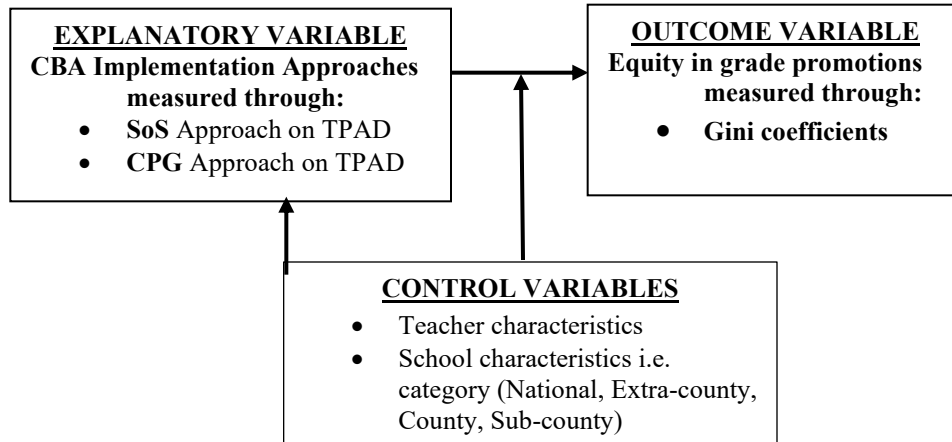
EXPLANATORY VARIABLE	OUTCOME VARIABLE
CBA Implementation Approaches measured through: • **SoS** Approach on TPAD • **CPG** Approach on TPAD	**Equity in grade promotions measured through:** • **Gini coefficients**

CONTROL VARIABLES
- Teacher characteristics
- School characteristics i.e. category (National, Extra-county, County, Sub-county)

Figure 1: Conceptual Framework of CBA Implementation Approaches on Equity

Methods
The study adopted a comparative research design since the design essentially compares two different groups to determine either similarities or differences between them for revelations on a common phenomenon (Lodico et al., 2006) which in this case were SoS versus CPG approaches on the same 2017-2021 CBA.

The study had a total population of 5,923 out of which a sample of 1,569 respondents were drawn for this study using a formula prescribed by Cochran (1977). Primary data was collected using questionnaires and interview schedules while secondary data was collected using the document analysis guide as guided by the Addendum to the Collective Bargaining Agreement (CA NO. 296 of 2016). The study adopted content validity while internal consistency method was used to test the reliability of the instruments with a Cronbach alpha co-efficient of 0.877.

In data analysis, the variables of the study were all measured on the interval scale. Pairwise correlation was used to establish plausible interactions between the variables while logistic regression analysis was done to depict the odds (likelihood) of a teacher getting promoted by virtue of belonging to a particular union (either KUPPET or KNUT) for comparison purposes (Greene, 2012; Sturdivant, 2013, Todaro & Smith, 2006)). Then gini coefficient was used to measure and determine the aggregate values of equity accruable in grade promotion for the two unions for comparison purposes. The Lorenz curve was used to show the graphical representation of the two promotion distributions for the two unions for purposes of comparison.

Results and Discussion
Data for this study was collected in post-primary education institutions in Kakamega County from unionized teachers with the aid of Questionnaires. A response rate of 93.44 % of questionnaires was realized.

Descriptive Statistics
The distribution of TPAD scores among the respondents were as shown in Table 1.

Table 1: Distribution of Respondents' TPAD Scores

Variable	Mean	Std. Dev.	Min	Max
t51a2017	70.42144	8.667917	4	99
t51b2018	72.76782	96.01121	4	8181
t51c2019	72.43025	11.46462	6	766
t51d2020	74.45535	94.37813	45	7972
t51e2021	73.25815	9.695425	7	381

Note; t51a2017=2017 tpad score; t51b2018=2018 tpad score; t51c2019=2019 tpad score; t51d2020=2020 tpad score; t51e2021=2021 tpad score

Table 1 show that the highest mean TPAD score for the respondents was 74.46 in the year 2020 while the lowest was 70.42 in the year 2017. However, the highest standard deviation in the TPAD scores was 96.01 in year 2018.

Pairwise Correlation for the variables
In order to determine the plausible interactions (association between variables) that could be pursued further in the regression models involving TPAD scores, a pairwise correlation between grade promotion, union membership and TPAD scores for 2017-2021 at alpha = .05 was done and the correlation gave the results in Table 2.

Table 2: Correlation Matrix Between Promotion, Union Membership and TPAD Scores for 2017-2021

	t24dy	t29x	t51a2017	t51b2018	t51c2019	t51d2020	t51e2021
t24dy	1.000						
t29x	-0.045*	1.000					
	0.025						
t51a2017	-0.149	0.044*	1.000				
	0.000	0.000					
t51b2018	-0.012	-0.009	0.058*	1.000			
	0.555	0.416	0.000				
t51c2019	-0.128*	0.024*	0.454*	0.012	1.000		
	0.000	0.042	0.000	0.301			
t51d2020	-0.061*	0.015	0.039*	0.004	0.038*	1.000	
	0.002	0.209	0.001	0.755	0.001		
t51e2021	-0.072*	0.046*	0.448*	0.037*	0.295*	0.554*	1.000
	0.019	0.014	0.000	0.042	0.000	0.000	

The results in Table 2 show that union membership and TPAD scores 2017-2021 were statistically significant to teacher promotion ($p \leq .05$) at alpha = .05. Consequently, Pairwise correlation was done while controlling for teacher-level and school-level variables and results were as shown in Tables 3 and 4 respectively.

Table 3: Pairwise Correlation Results (Controlling for Teacher-Level Characteristics)

	t24dy	t62	t65
t24dy	1.000		
t62	-0.002	1.000	
	0.922		
t65	0.181*	-0.009	1.000
	0.000	0.440	

Note. t24dy=grade promotion; t62=gender; t65=designation

Table 3 shows that TPAD score was significant to promotion. The pairwise correlation results while controlling for school-level variables are shown in Table 4.

Table 4: Pairwise Correlation Results (Controlling for School-Level Characteristics)

	t24dy	t69	t610b	t71
t24dy	1.000			
t69	-0.032	1.000		

	0.111			
t610b	-0.051	-0.216*	1.000	
	0.010	0.000		
t71	0.016	0.021	-0.001	1.000
	0.478	0.112	0.933	

Note. t24dy=grade promotion; t69=sub county; t610b= school category; t71=designation in school

Table 4 shows that school category variable was significant to promotion. Since (p≤.05) in both Table 3 and Table 4, then both union membership and TPAD scores were statistically significant to promotion hence pursued further in the regression.

Logistic Regression Analysis for Grade promotion and TPAD Scores
As a Consequence, three logistic regression models were developed. The first one was model 1 whose intention was to determine the effect of TPAD scores of 2017-2021 on grade promotion. The second model was model 2 which sought to find out the effect of TPAD scores 2017-2021 on grade promotion while controlling for teacher-level variables. The third regression model which was model 3, while controlling for both teacher-level and school-level variables, sought to find out the effect of TPAD scores 2017-2021 on grade promotion of teachers. The results of the three models are presented as model 1, model 2 and model 3 in a summarized format as Table 5.

Table 5: Logistic Regression Odds for the Association Between TPAD Scores (2017-2021) and Promotion

Variable	Variable label	Model 1 (t24dy) OR (Std.Err)		P	Model 2 (t24dy) OR (Std.Err)		P	Model 3 (t24dy) OR (Std.Err)		p
t29x	1=KP;0=KN	.79	(.15)	0.195	1.08	(.14)	0.553	.84	(.10)	0.148
t51a2017	Tpad score	.97	(.02)	0.047	.96	(.01)	0.000	.95	(.01)	0.000
t65	3=C3 grade				.02	(.04)	0.029	.14	(.15)	0.056
t610b	3=EC school							.63	(.13)	0.031
	4=N school							.65	(.13)	0.037
Constant		3.70	(.34)	0.158	12.82	(19.22)	0.089	5.33	(2.5)	0.000
N		1,032			2,423			2,405		
LR chi2(df); Value		(5) 19.20		0.002	(10) 212.80		0.0000	(5) 73.56		0.000
PseudoR^2		0.0233			0.1089			0.0383		

Note. KP=KUPPET; KN=KNUT; t24dy=grade promotion; t29x=union membership; t51a2017=2017 tpad score; t65=designation; t610b= school category; EC=Extra County; N=National school

Results in Table 5 model 1, model 2, and model 3 show that membership in KUPPET was statistically insignificant on promotion while controlling for teacher-level and school-level variables (p>.05) as shown by .195, .553 and .148 respectively. The final regression model was model 4 which sought to find out the effect of union membership on promotion while controlling for both teacher-level and school-level variables. The results were as shown in Table 6.

Table 6: Logistic Regression Odds for KUPPET Membership on Promotion Controlling for Both Teacher-Level and School-Level Characteristics

Logistic regression				Number of obs	=	2,405	
				LR chi2(5)	=	73.56	
				Prob > chi2	=	0.0000	
	Log likelihood = -923.07469			Pseudo R2	=	0.0383	

Variable	Label	Odds Ratio	Std. Err.	Z	$p>$	|z|	[95% Conf. Interval]
t29x	1=KP;0=KN	.84	.10	-1.45	0.148	.659	1.06
t51a2017	TPAD	.95	.01	-6.88	0.000	.940	.966
t65	3=C3	.14	.15	-1.91	0.056	.019	1.05
t610b	3=EC	.63	.13	-2.15	0.031	.418	.959
	4=N	.65	.13	-2.08	0.037	.435	.975
	Cons	5.32	2.53	3.52	0.000	2.09	13.5

Note. _cons estimates baseline odds; KP=KUPPET; KN=KNUT; t29x=Union Membership; t51a2017=2017 TPAD Score; t65=Designation in school; t610b= School Category; EC=Extra County; N=National School

The results in Table 6 further show that, an extra score in TPAD in 2017 and teaching in extra county and national schools reduces the odds of promotion to the next grade.

Gini Permutation Test for Union Membership and Grade Promotion Based on TPAD Scores 2017-2021

Ho: 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 teacher performance.

Using the data provided in Table 5 on union membership and grade promotion for 2017-2021 and the data provided in Table 2 on TPAD scores for 2017-2021, the Gini Permutation Test was performed for this objective based on TPAD scores with the set seed 7227. The results for the Gini Permutation Test for TPAD scores 2017-2021 were as shown in Table 7.

Table 7: Gini Permutation Test Results Based on TPAD Scores 2017-2021

Variable	pGiniPerm 2017	pGiniPerm 2018	pGiniPerm 2019	pGiniPerm 2020	pGiniPerm 2021
*P*val	.022	.034	.001	.002	.024
Stat	.0001	.0001	.0001	.0001	.0001

Based on Table 7, since $p \leq .05$ for each year for 2017-2021, the null hypothesis of equality of the two promotion distributions was rejected. Furthermore, the Gini Permutation test results for the two unions are as shown in Table 8.

Table 8: Gini Permutation Test Results for Unions 2017-2021

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

From Table 8, the graphical presentation of the tabulation for the gini coefficients of the two unions is shown in the Lorenz curve in Figure 2.
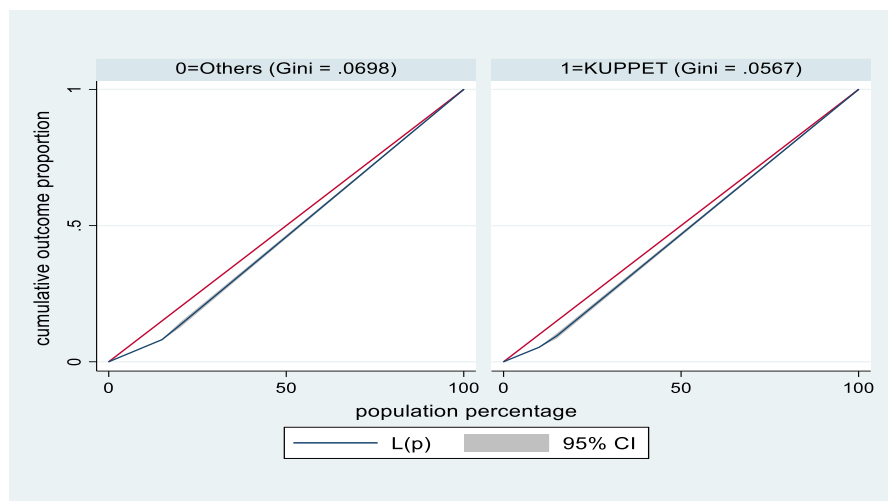

Figure 2: Lorenz Curves of Grade Promotion for Unions in Post-Primary

Figure 2 Compares the Lorenz curves for the grade promotion in the two unions side by side, showing that promotions in KUPPET (gini=.0567) appears marginally equitable than Others (gini=.0698). Others are KNUT, KUSNET and KUTT, which is basically KNUT since the other two were not subscribed to the 2017-2021 CBA during the period of its implementation. Therefore, based on Tables 7 and 8, we reject the null hypothesis of equality of the two promotion distributions since $p \leq .05$.

Conclusions and Recommendations

This means that the difference in equity in grade promotion of post-primary teachers between the application of the scheme of service and the career progression guideline approaches is statistically significant based on teacher performance in TPAD ratings. Grade promotion in KUPPET is found to be marginally more equitably distributed than in KNUT, with an extra score in TPAD in 2017, and teaching in either extra-county or national schools reducing the odds of promotion to the next grade in KUPPET union.

The study therefore recommends for the harmonization of the two approaches into one hybrid one to implement grade promotions among post-primary teachers for equity purposes based on any given CBA. The study further recommends for the establishment of a demarcation policy in which post-primary teachers can be limited to being members of one given union at a time.

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