

Influence of Principals' Intellectual Stimulation on Students' Performance at Kenya Certificate of Secondary Education in Public Secondary Schools, Kenya

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ABSTRACT

Transformational leadership is an ideal characteristic which enables the principals to engage with followers and raise consciousness about the significance of specific outcomes and new ways in which those outcomes might be achieved. The purpose of this study was to investigate the influence of principals' intellectual stimulation on student academic performance in Kenya Certificate Secondary Examination (K.C.S.E) in Makueni County, Kenya. The objective that guided the study was to: assess how the principals' intellectual stimulation influences students results at Kenya Certificate of Secondary Education. with the hypothesis that there is no relationship between principals' intellectual stimulation with students' mean scores at Kenya Certificate of Secondary Education Makueni County, Kenya. The study used transformational leadership theory by Burns (1978) which has four dimensions namely idealized influence, inspirational motivation, intellectual stimulation and individual consideration; all of which are critical in determining academic achievement. The conceptual framework of this study is based on the relationship between the principal transformational with academic performance. The sample comprised of 111 principals, 729 teachers and 12 Ministry of Education officials drawn from 388 secondary schools. Questionnaires and interview guide were used to collect data. Validation of the questionnaires were through test re-test method and use of expert judgment. The coefficient value was 0.85 at $\alpha = 0.05$. Data was analysed using both descriptive Pearson's correlation coefficient that test showed a strong correlation for Intellectual stimulation and KCSE students' mean scores. The result indicated a negative and strong correlation between intellection stimulation and students' KCSE performance ($r = -.195$, $p\text{-value} < 0.05$) respectively. It was concluded that principals' collective sense of mission and valuing ideas of the followers increased performance. The following recommendations

were made: KEMI to carry out transformational leadership seminars for the principals on intellectual practices. The Ministry of Education Policy makers should establish policies on transformational leadership. Teacher trainers especially the universities ought to review curriculum to include analysis of school managers and also have simulated situations.

Keywords: Intellectual stimulation, Transformational Leadership, Students' Academic Performance

1. INTRODUCTION

Transformational leadership and academic performance in secondary schools are two aspects that are crucial. The kind of leadership skill applied by the principal to the followers determines the performance. For instance, principal's leadership influence students' performance so that growth and development can be realized (Ndiritu, 2012). This leadership attracts positive effects on the follower's performance in the organization (Gardner, 2010). The findings by Saxe (2011) are consistent with Muia (2018) that schools need reforms through transformational dimensions to sustain achievement. Therefore, the principal transformational leadership dimensions' and academic performance are inseparable. "As its name implies, transformational leadership plays a pivotal role in precipitating change (Northouse, 2016). Therefore, a school principal as the leader should be in a position to adjust goals, direction and mission for practical reasons.

Moreover, becoming more effective in adopting intellectual stimulation behaviour changes the whole scenario of performance in the school (Veysel, 2014).

Intellectual stimulation is a component of transformational leadership which encourages followers to ask questions trigger their values as well as beliefs (Elkins, Keller and Sundi 2013). Organizations achieve their goals successfully through the followers' hard work, dedication, and a culture of active thinking (Anjali & Anand, 2015). These qualifications allow the followers to become more active thus improve ways of solving problems (Tims, Bakker, and Xanthopoulou, 2011). This component involves the principals' high expectations from the followers in terms of performance. Intellectual stimulation is a good practice for KCSE since it has a relationship with the principals' transformational leadership (Muia, (2018). Positive practices by the principals which can increase performance include inspire people to be creative when dealing with issues (Bell & Menguc, 2012; Podsakoff, MacKenzie and Bommer (2014). Intellectual leadership dimension enables the leader to encourage and provide new ways of thinking to the followers in the organization (Liu, 2013).

One way of evaluating the intellectual stimulation of principals is by analysing their performance under the current education systems from 2013-2017. Therefore, all secondary school leaders regardless of the sectors are pressured by accountability for better results. Table 1 shows KCSE performance 2013 to 2017.

Table 1

An analysis of Makueni, Machakos and Kitui Counties' KCSE mean score for 2013-2017

Year	National MS	Makueni MS	Machakos MS	Kitui MS
2013	5.04	5.04	4.56	4.21
2014	5.30	5.16	4.79	5.07
2015	5.15	5.07	4.72	5.67
2016	5.30	4.78	3.42	4.10
2017	5.38	3.44	3.20	3.32

Source: (County Director of Education, Makueni County statistics section, 2017)

Makueni County schools have continued to maintain a mean score of 5 from 2013- 2015 in the students' academic performance in public secondary with exception of 2016-2017 where the mean score slightly decreased. This could be attributed to a gap in the transformational leadership behaviours among public secondary principals. Therefore, the solution to this problem can only be understood by establishing whether the practice of principals' intellectual stimulation influence student academic performance in Kenya Certificate of Secondary Education. The null hypothesis of this study was: There is no significant relationship between principals' intellectual stimulation component and students' mean score at Kenya Certificate of Secondary Education in Makueni county, Kenya.

2.0 Literature Review

Intellectual stimulation is a dimension which is used by leaders to inspire people to be creative when dealing with issues (Bell & Menguc, 2012; Podsakoff, MacKenzie and Bommer (2014). Intellectual stimulation also allows innovation among the followers (Sundi, 2013; (Griffin, Neal & Neale, 2013).). The principals who exhibit innovation and creativity in their leadership enables the students to get high marks in the examination. Intellectual stimulation of

transformational leadership brings change in the school context. Intellectual leadership dimension enables the leader to encourage and provide new ways of thinking to the followers in the organization (Liu, 2013). Bellé (2013) agree that the new ways of thinking are about their beliefs and values.

Bass & Riggio (2006) support that leaders who have intellectual stimulation involve followers in finding answers for many problems affecting the organization hence they often challenge old ways of doing things. Hadebe (2013) attributed intellectual stimulation as the most core element portrayed by the secondary school principals. However, the teachers felt that some of their knowledge and skills were not utilized by the principals an aspect that a transformational leader should consider in making all the followers feel important and appreciated, involved in decision making.

Muia (2018), finding show that intellectual stimulation elements positively contributed to KCSE examinations in public secondary schools. The principal's intellectual stimulation was high leading to a strong relationship toward teachers and students. This is an indication that performance was also high. Bolkan, Goodboy, and Griffin (2015) agree that when the principals who communicate this dimension change the classroom environment by motivating the students and their approaches to learning. Subsequently, teachers also influence the students' intrinsic motivation by applying the dimension of intellectual stimulation thus changing the students' approaches to learning. Notably, Robinson, Lloyd and Rowe (2008) point out that intellectual stimulation attracts good academic performance in examinations. This is because school principal use intellectual stimulation dimension to encourage teachers to develop new ways of approaching and solving issues hence it raises the eyebrows of the students in term of performance. Finally, a study by Liu (2013) postulate this dimension helps the followers to have new ways of thinking to enable the organization grow. Ndiritu (2012) found that poor results were as a result of ineffective practices by the school principals' and suggested on further training of the principals' intellectual stimulation characteristic. This will create a good relationship between the principal and the students hence improve student academic performance in schools. Scholars belief that inspiration motivation from leaders emanates from different angles. For instance, Ahmad, Ather & Hussain (2014) argue that teachers perform vital role in motivating learners and is made up of two beliefs; firstly, in their own teaching ability and secondly on their belief in the students' learning ability. As a principal, the ability

to believe in their effectiveness to lead others should be reflected in their personal efforts to establish a rousing environment for all the followers.

Transformational leadership theory which focuses on the leader's behaviours, where change in the followers is observed and interests of the group are taken care of informed this study (Warrilow, 2012). The concept of transformational leadership is a reflection of Bass seminal works where transformational leadership contributed quite a number of benefits to the follower and the organization in terms of its effectiveness (Bass, 1985). Kolzow (2014), further comment that a transformational leader is a leader engages followers by demonstrating integrity and trust. The leader's role is to transform the followers' sense of purpose, vision, goals and finally model the following into a single team.

Bass (1985) puts it clearly that transformational leadership has to be grounded in moral foundations that are usually based on four components: individual consideration, intellectual stimulation, inspiration and idealized influenced. These aspects are important to the transformational leader who in turn exhibits them through the followers for the purpose of bringing about desired outcomes (Bass & Riggio, 2006). Based upon this theory, this study seeks to determine the influence of principals' intellectual stimulation on student performance at Kenya Certificate of Secondary Education. The main hypothesis was intellectual stimulation dimension has no significant relationship with students' mean scores at KCSE.



Figure 1. Source: Adopted from Mojgan et al, (2012).

3.0 Research Methodology

According to Kothari & Garg (2014), a design arranges data analysis in a conceptualized structure in research. This study adopted correlational method which examines a significant relationship between two or more variables that were obtained through a statistical procedure (Osebo & Ifeakor, 2011). The total number of respondents was 111 principals, 12 Ministry of Education officials and 729 teachers. The researcher used purposive approach to select all the schools' heads and MoE officials. Simple random sampling method was applied to the teachers.

The data for the study was collected by using two types of instruments namely: questionnaires and interviews. O' Leary (2014) assert that a questionnaire uses survey method. Cohen, Manion, & Morrison, (2013) assert that a questionnaire instrument collects primary data. There were two types of questionnaires: principals' and teachers. Each questionnaire contained statements relating to the influence of the principals; transformational leadership on students' academic performance.

The analysis was done by descriptive statistics using Statistical Package for Social Sciences version 21.0. In addition, Pearson's correlation analysis and regression analysis were used to establish the relationship between the study variables. The study took place in Makueni County with Principals as the main respondents. Others were the teachers and key informants from the ministry of education at the county. A sample of 111 principals drawn from a population of 388, 729 teachers were sampled from 2121 and finally 12 respondents from the Ministry of Education participated in the study. The samples provided the data for analysis in order to determine the intellectual stimulation practice of leadership. The analysis was done by descriptive statistics using Statistical Package for Social Sciences version 21.0. In addition, Pearson's correlation analysis and regression analysis were used to establish the relationship between the study variables. The study took place in Makueni County with a target population of 338 secondary schools and with Principals as the main respondents. Others were the teachers and key informants from the ministry of education at the county.

Cronbach's alpha was utilized to measure the degree to which the set of variables measures evaluates a specific latent construct (Andrew, Pedersen, & McEvoy, 2011). Cronbach's alpha provides a correlation between the survey item and the construct that it intends to measure. Cronbach's alpha levels above 0.7 are desirable indicating that the measured results are indeed representative of the construct being measured (Andrew et al., 2011).

4.0 Results and Discussion

4.1 Questionnaires Return Rate

The researcher sought to establish the rate of return for the questionnaires. The researcher distributed questionnaires to the principals and teachers respectively in the Makueni County. Microsoft excel sheet and SPSS 21.0 was used to analyse the results. Table 2 shows the questionnaires return rate of the principals and teachers.

Table 2

Questionnaires return rate of the principals and teachers

<i>Respondents</i>	<i>Returned</i>	<i>Not Returned</i>	<i>% return rate</i>
Principals	106	5	95.5%
Teachers	623	96	85.4%

Table 2 indicates that response rate of the principals was 95.5 percent and the teachers was 85.4 percent. This response depicted a good enough response rate reliable for representing the population under study. A study by Fryrear (2015) argues that a response rate of 80 percent and above is preferable and high enough from internally conducted surveys whereas external surveys may yield much less or higher depending on the method used. According to Mbithi (2014), this response depicted a good enough response rate reliable for representing the population under study. However, 25 items were not fully included because they had incomplete items thus a reduction of questionnaires.

4.2 Demographic information

Demographic characteristics showed that majority of the principals were female with 57.7 percent while their male counterparts were 42.3 percent. Similarly, female teachers were 63.0 percent more that the male teacher 37.0 percent. The results revealed that there was high gender disparity of the principals and teachers. The female principals and teachers results indicate that they had know-how of the leadership practices. Concerning the age of the respondents, the principals who were between 40-49 were the majority. The finding implied that the principals’ maturity level of displaying transformational leadership practices was high hence improved academic performance of public secondary schools. On other hand, teachers below 30 years were the majority 44.4 percent with the highest frequency. This portrayed that many young teachers embraced the teaching profession. Academically, both the principals and the teachers had a bachelor degree. This implies that most of the principals and teachers were qualified in displaying leadership skills and decision making. Respondents experience confirmed that teachers who were between 6-15 years were 47.8 percent and the principals were 51.3 percent respectively. This means that principals and teachers with longer experience were more likely

to apply transformational leadership skills. Further, majority of the principals about 58.6 percent had worked at their current positions for more than four years while majority of the teachers below 2 years had 39.5 percent indicating the large number of young people joining the teaching profession

4.3 K.C.S. E Performance Makueni County

The study also indicated that the mean score for the five years was 5.27 C-. There were 111 schools, 14 of which managed to attain C+ and above qualified to join university over the four years. This implied that quite a good number of students in the 14 schools joined universities. The performance was attributed to availability of facilities, lab equipment, appropriate resources and textbooks. The principals and MoE officials utilized transformational practices. 23 schools scored C Plain, 55 had C- and 19 schools scored D+. Majority of the schools (55) had a mean grade above C-. This implied that most students performed in K.C.S.E. The subsequent analysis related idealized influence on academic performance.

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4.4 Intellectual stimulation and academic performance

The researcher sought to find out principals' use of intellectual stimulation dimension toward students KCSE performance. Intellectual stimulation (III) has characteristics that are helpful and can be emulated by teachers and students hence increased school performance.

4.4.1 Principals Responses on The Use Of Intellectual Stimulation And Academic Performance

The Principals were required to indicate the use of Intellectual stimulation and effect on K.C.S.E performance. The objective was to Assess how principals Intellectual Stimulation influences students' performance at Kenya Certificate of Secondary Education in public schools Makueni County. The table 2 shows item i to xiii measuring Intellectual stimulation influence on academic performance in public schools. A five Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = strongly Agree. The items represent the Intellectual stimulation leadership behaviour of the principals in Makueni country.

Table 3: Principals responses on Intellectual stimulation dimension and student performance at KCSE

Principals response on intellectual stimulation on student performance at K.C.S.E

<i>As a principal, I</i>	<i>SD</i>		<i>D</i>		<i>N</i>		<i>A</i>		<i>SA</i>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
Displayed a sense of power	5	4.5	4	3.6	6	5.4	35	31.5	61	55.0
Instil pride in others for being associated with you	4	3.6	3	2.7	6	5.4	33	29.7	65	58.6
Emphasize the importance of having a collective sense of mission	0	0.0	2	1.8	0	0.0	25	22.5	84	75.7
Specify the importance of having a strong sense of purpose	0	0.0	0	0.0	3	2.7	33	29.7	75	67.6
Think about what needs to be accomplished	0	0.0	2	1.8	1	0.9	36	32.4	72	64.9
Seek different opinions from followers when solving problems	1	0.9	1	0.9	0	0.0	45	40.5	64	57.7
Getting other to look at problems from different angle	0	0.0	2	1.8	2	1.8	47	42.3	60	54.1
Encouraging non-traditional thinking	0	0.0	1	0.9	6	5.4	44	39.6	60	54.1
Re-examining the accuracy of critical assumptions	0	0.0	1	0.9	7	6.3	41	36.9	62	55.9
Stimulate ideas from followers by a safe environment to challenge the status quo	0	0.0	3	2.7	6	5.4	39	35.1	63	56.8
Ask the followers what they think about their commitment towards work make wise decisions.	0	0.0	0	0.0	6	5.4	40	36.0	65	58.6

Make wise decisions	0 0.0	0 0.0	9 8.1	31 27.9	71 64.0
Value ideas of my followers	0 0.0	1 0.9	0 0.0	34 30.6	76 68.5

This table shows item i to xiii measuring presenting the statistics on objective two; to assess how principals Intellectual stimulation influences students’ performance at Kenya Certificate of secondary education in public schools Makueni County. As observed in table 2 the study found that principals strongly agreed that they behaved in ways that helped the teachers and student be effective and hence improved academic performance. On Emphasize the importance of having a collective sense of mission majority 75.7 percent of the principals Strongly Agreed that principals Emphasize the importance of having a collective sense of mission while 22.5 percent Agreed. This finding is interpreted that the students who emulated their principals excelled in KSCE.

On Think about what needs to be accomplished majority 64.9 percent of the principals Agreed that they Think about what needs to be accomplished while 32.4 percent Strongly Agreed and 1.8 percent Disagreed respectively. The findings imply that the staff worked hard aiming to score high marks in KCSE.

On Make wise decisions What sufficient resources do you provide to help teacher perform majority 64.0 percent of the principals Strongly Agreed that they make wise decisions while 27.9 percent Agreed.

On Value ideas of my follower’s majority 68.5 percent of the principals Strongly Agreed that they Value ideas of my followers while 30.6 percent Agreed. This implied that it encouraged the followers to work hard toward performance. Item (iii) Emphasize the importance of having a collective sense of mission was the highest practice with 75.7 percent hence the reason for the performance 2013-2017.

This was the highest practice of intellectual stimulation. The results imply that principals applied intellectual stimulation practices in their leadership hence academic performance increased.

Table 4: Teachers perception on principals use of intellectual stimulation

<i>My principal</i>	<i>SD</i>		<i>D</i>		<i>N</i>		<i>A</i>		<i>SA</i>	
	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>	<i>f</i>	<i>%</i>
Actively involves teachers in school’s decision making	16	2.2	54	7.5	134	18.4	243	33.3	282	38.7

Leadership is distributed among many individuals	12 1.6	54 7.4	53 7.3	282 38.7	328 45.0
Has supportive forms of administrative leadership	12 1.6	48 6.6	74 10.2	279 38.3	316 43.3
Interacts with other members of staff freely	13 1.8	51 7.0	56 7.7	256 35.1	353 48.4
Has self-managing and self-leading skills	35 4.8	15 2.1	41 5.6	287 39.4	351 48.1
Has capacity to solve problems	11 1.5	42 5.8	89 12.2	237 32.5	350 48.0
Is able to make decisions in the interest of the school	9 1.2	21 2.9	104 14.3	229 31.4	366 50.2
Stimulates ideas and creativity from teachers	12 1.6	45 6.2	106 14.5	262 35.9	304 41.7
Creates a safe environment to challenge status quo	13 1.8	53 7.3	66 9.1	296 40.6	301 41.3
Encourage teachers to be innovative and creative	12 1.6	55 7.5	50 6.9	265 36.4	347 47.6
Promotes intelligence	12 1.6	50 6.9	64 8.8	285 39.1	318 43.6
Exercises rationality	16 2.2	57 7.8	66 9.1	301 41.3	289 39.6
Handles cases with the teachers	30 4.1	39 5.3	29 4.0	311 42.7	320 43.9

f indicates frequency % stands for percent

Teachers perception on principal's intellectual stimulation showed that most of the teachers' response on the principals was rated good. Item (vii) Is able to make decisions in the interest of the school at 50.2 percent showed the highest practice. Item (iv) Interacts with other members of staff freely 48.4 percent, Item (v) Has self-managing and self-leading skills 48.1 percent. Item (vi) Has self-managing and self-leading skills 48.0 percent These practices had a lot of influence at KCSE performance especially the principals understanding on how to make decisions on the interest of the school. Out of the thirteen factors used to investigate principals'

individual stimulation in schools four of them show there is a strong significance implying that principals' individual stimulation has influence on students' performance at K.C.S.E. Therefore, intellectual stimulation practice appeared to be emphasized by both the principals and teachers in order to enhance student academic performance in Makueni county. Based on the study findings emphasizing the importance of having a collective sense of mission at 75.7 percent and making decisions in the interest of the school were used by the principals to increase performance at 50.2 percent in 2013-2017 KCSE performance. Report from the MoE officials who were mostly degree holders indicated that their principals applied intellectual stimulation through supporting creativity and innovations in schools through discussions, asking questions and assisting teachers. The MoE also reported that since the principals assumed office achievement has been realized in the sense that they encouraged, rewarded, and supported teachers training.

4.4.2 Hypothesis testing

H0₃: There is no significant relationship between principals' intellectual stimulation component and students' mean score at Kenya certificate of Secondary Education Makueni county. Correlation analysis using Pearson's product moment technique was done to determine the relationship between the indicators of principals' intellectual stimulation component and students' mean score at Kenya certificate of Secondary Education. The null hypothesis is there is no significant relationship between principals' intellectual stimulation component and students' mean score at Kenya certificate of Secondary Education at an alpha value 0.05 level of significance.

Pearson correlation was used to test the relationship between principals' intellectual stimulation e and student academic performance at an alpha value 0.05 level of significance.

Table 4

Correlation between principals' intellectual stimulation and student mean score at KCSE

	Performance
Statement	

	Pearson correlation	Sig.(2- tailed)	N
Displayed a sense of leadership	-.125	.190	111
Instil pride in others for being associated with you	-.129	.177	111
Emphasize the importance of having a collective sense of mission	-.030	.753	111
Specify the importance of having a strong sense of purpose	.056	.557	111
Think about what needs to be accomplished	.088	.356	111
Seek different opinions from followers when solving problems	.082	.389	111
Getting others to look at problems from different angles	.014	.880	111
Encouraging non-traditional thinking and suggests	.044	.647	111
Re-examining the accuracy of critical assumptions	-.074	.441	111
Stimulates ideas from followers by a safe environment to challenge the status quo	-.057	.553	111
Ask the followers what they think about their commitment towards work	-.195*	.040	111
Make wise decision	-.007	.943	111
Value ideas of my followers	.028	.771	111

The correlation results in Table 4 indicate a negative and strong significant coefficient between the indicators of principal's intellectual stimulation and students means score at K.C.S.E. The table shows principals different variations.

This implied the less principals were intellectually stimulated the more students means score at K.C.S.E improved. The indicators of principals' intellectual stimulation component include ($r=-.195$, $p\text{-value}<0.05$) respectively. The null hypothesis states that there is no significant

relationship between principals’ intellectual stimulation component and students’ mean score at Kenya Certificate of Secondary Education would be accepted if $p < 0.05$. The null hypothesis was rejected. Muia (2018) concurs with these findings that principals’ intellectual stimulation was associated with performance where $p = 0.05$ and $r(200) = 0.198$ hence showing a high significant relationship. These findings concur with Ogola, Sikalich, and Linge, (2017) who found that intellectual stimulation had a positive proportion of variance in performance. The results showed that intellectual stimulation leadership behaviour and employee performance in SMEs in Kenya had a strong and significant Pearson correlation $r(194) = .722$, $p < .000$ and a positive and significant relationship ($\beta = .722$, $t(194) = 14.444$, $p < .000$). Consequently, intellectual stimulation behaviour when displayed by the principals results to high performance in schools for both teachers and students thus increasing the means score in KCSE examination (Mbithi, 2014).

Report from the MoE officials who were mostly degree holders indicated that their principals applied intellectual stimulation through supporting creativity and innovations in schools through discussions, asking questions and assisting teachers. The MoE also reported that since the principals assumed office achievement has been realized in the sense that they encouraged, rewarded, and supported teachers training.

Table 5

Distribution of teachers’ responses on principals’ intellectual stimulation on students’ K.C.S.E ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
IS1	Between Groups	543.084	63	8.620	24.621	.000
	Within Groups	232.828	665	.350		
	Total	775.912	728			
IS2	Between Groups	459.695	63	7.297	21.881	.000
	Within Groups	221.765	665	.333		
	Total	681.460	728			
IS3	Between Groups	430.590	63	6.835	18.719	.000

	Within Groups	242.812	665	.365		
	Total	673.402	728			
IS4	Between Groups	456.291	63	7.243	20.041	.000
	Within Groups	240.326	665	.361		
	Total	696.617	728			
IS5	Between Groups	553.618	63	8.788	34.100	.000
	Within Groups	171.372	665	.258		
	Total	724.990	728			
IS6	Between Groups	508.981	63	8.079	31.871	.000
	Within Groups	168.575	665	.253		
	Total	677.556	728			
IS7	Between Groups	429.816	63	6.822	29.444	.000
	Within Groups	154.088	665	.232		
	Total	583.904	728			
IS8	Between Groups	517.149	63	8.209	31.419	.000
	Within Groups	173.740	665	.261		
	Total	690.889	728			
IS9	Between Groups	486.481	63	7.722	25.881	.000
	Within Groups	198.408	665	.298		
	Total	684.889	728			
IS10	Between Groups	485.082	63	7.700	24.541	.000
	Within Groups	208.641	665	.314		
	Total	693.723	728			
IS11	Between Groups	472.202	63	7.495	25.085	.000
	Within Groups	198.698	665	.299		

	Total	670.900	728			
IS12	Between Groups	489.491	63	7.770	22.232	.000
	Within Groups	232.405	665	.349		
	Total	721.896	728			
IS13	Between Groups	447.399	63	7.102	15.390	.000
	Within Groups	306.848	665	.461		
	Total	754.247	728			

Table 5 shows that there was a statistically significant difference between groups as determined by one-way ANOVA ($F(63,665) = 34.100, p = .000$), ($F(63,665) = 31.871, p = .000$) for Has self-managing and self-leading skills and Has capacity to solve problems respectively.

5. Conclusion

Transformational leadership behaviours are key and should be reflected by the principals in public secondary schools. Transformational leaders only purpose to transform their followers when they develop to practice the intellectual stimulation skills hence improve academic performance. The purpose of the study was to investigate the influence of principals of intellectual stimulation practices on student academic performance in Kenya Certificate Secondary Examination (K.C.S.E) in Makueni County, Kenya. The main reason for the study was to assess how principal's intellectual stimulation influences students' performance at K.C.S.E in Makueni.

Intellectual stimulation was seen to be the commonly used and possessed attribute by the principals in Makueni County. Intellectual stimulation attribute directly contributed to the students' academic performance in the year 2013-2017 respectively. Most of the teachers agreed that their principals made decisions in the interest of the school, interacted with other members of staff freely, self-managed and used self-leading skills to respectively to ensure that desired performance has been achieved. The indicators of principals' intellectual stimulation component include ($r = -.195, p\text{-value} < 0.05$) respectively. The null hypothesis states that there is no significant relationship between principals' intellectual stimulation component and students' mean score at Kenya Certificate of Secondary Education would be accepted if $p < 0.05$. The null hypothesis was rejected.

From the findings of the study on principal's intellectual stimulation and student performance at Kenya Certificate of Secondary Education in Makueni County, Kenya. The study shows that there was a statistically significant difference between groups as determined by one-way ANOVA ($F(108,2) = 2.114, p = .376$), ($F(108,2) = 1.905, p = .407$) for Stimulates ideas from followers by a safe environment to challenge the status quo and Instil pride in others for being associated with you respectively. The most insignificant difference registered was for Getting others to look at problems from different angles as ANOVA result show ($F(108,2) = .132, p = .999$) and ($F(108,2) = .161, p = .997$) for Think about what needs to be accomplished respectively.

6.Recommendations

From the findings of the study on principals intellectual stimulation and student performance at Kenya Certificate of Secondary Education in Makueni County, Kenya we conclude that there was a statistically significant difference between groups as determined by one-way ANOVA significant difference between groups as determined by one-way ANOVA ($F(63,665) = 34.100, p = .000$), ($F(63,665) = 31.871, p = .000$) for Has self-managing and self-leading skills and Has capacity to solve problems respectively. The most significant difference registered was for emphasizing the importance of having a collective sense of mission, having a strong sense of purpose and value ideas of the followers respectively.

Principals should attend academic training agencies to get the quality transformational leadership skills especially on intellectual stimulation. KEMI should embrace on more of intellectual stimulation attribute whereby their aim to emphasize the importance of having a collective sense of mission, having a strong sense of purpose and value ideas of the followers. TSC should sponsor trainings on the teachers especially the principals on the skills outside academic phenomenon required for excellence running of school. Teacher training institutions are important avenues for equipping the teachers with such knowledge and skills important for learning not only to the teacher but also to students. the ministry of education to ensure that all the potential talents are tapped efficiently and the specific need of schools are addressed specifically to ensure that academic performance is achieved in the educational institutions. MoE can get teacher trainers from Kenya Institute of management, universities and colleges to be encouraged to offer transformational leadership skills to the teachers. Further, policies on quality leadership should be laid down giving a good foundation for the teachers' service commission to promote teachers who have exhibited such qualities.

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