

## Teachers’ Perceptions on Transforming Learning Opportunities through Teaching-Learning Resources in Njoro Sub-County, Kenya



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**ABSTRACT:** This paper draws from a study conducted on the Influence of Selected Working Conditions on Teachers’ Commitments to their Professional Roles in Public Secondary Schools in Njoro Sub- County, Kenya. . This paper focuses on instructional materials and resources on teachers’ commitment to their professional roles in public secondary schools in Njoro Sub-County, Kenya. The study anchors on Hertzberg Two factor theory which postulates that motivation comprises maintenance and motivational factors. This theory recognizes work environment as a motivator of employees and influences on employee job satisfaction and commitment. Questionnaires were applied to collect data. Data was obtained from 60 Heads of Department and 88 class teachers employed by the Teachers’ Service Commission. Descriptive and inferential statistics was used to analyze data. The study established that adequate instruction materials have a significant bearing on the commitment of teachers among other factors. To this end, the study recommends the need to consider the provision of adequate teaching and learning facilities to schools based on contextual evidence.

**KEY WORDS:** Teacher Commitment, Instructional Materials, Secondary Schools

### INTRODUCTION

Several studies have linked school quality in resources to teacher commitment and performance (Ingersoll & Strong, 2011). In Njoro Sub-County which forms the context of this study, the expansion of secondary education in Kenya has come with newly established secondary schools that are faced with challenges of working conditions such as teaching-learning resources, heavy workloads and delays on promotion of teachers. According to the Sub-County Director of Education (DEOs Office, 2017), this has led to an unusually high turnover among teachers leaving the profession to pursue greener pastures.

This paper conceptualizes a resource to be any physical or virtual entity of limited availability that needs to be used to obtain a desired output or response. Resources offer a very powerful image for representing and understanding operations which learners are able to internalize and subsequently use (Alio & Ezeamenyi, 2010). According to Ladd (2011), instructional resources refer to the availability of instructional materials such as textbooks, guide books, teaching aids, technology, standard classrooms, science laboratories and even playing grounds. A teacher needs the necessary equipment, supplies, and materials to prepare lessons effectively. This paper therefore, addresses the significance of instructional materials in enhancing teacher commitment from the perspective of secondary school teachers in public schools in Njoro Sub-County, Kenya.

### Availability of Instructional Materials in the Sampled Schools.

Before establishing the link between instructional materials and teacher commitment, the study established the adequacy of instructional material in the sampled schools (*see Table 1 below*).

**Table 1. Adequacy of individual instructional material in the sampled schools**

Rate the adequacy of the following instructional materials in your school:	Response (%)					Mean	Std. dev
	VI	I	MA	A	HA		
Textbooks	0.0	0.0	0.0	10.1	89.9	<b>4.90</b>	<b>0.302</b>
Furniture (desks, chairs)	0.0	3.6	6.5	13.0	76.8	<b>4.63</b>	<b>0.765</b>
Black/whiteboards	0.0	1.4	12.3	34.1	52.2	<b>4.37</b>	<b>0.755</b>
Writing materials (chalk, pens, etc)	3.6	2.9	10.1	30.4	52.9	<b>4.26</b>	<b>1.006</b>
Laboratory reagents	0.0	3.6	20.3	31.2	44.9	<b>4.17</b>	<b>0.879</b>

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Laboratory facilities	0.0	8.7	25.4	23.9	42.0	<b>3.99</b>	<b>1.014</b>
Laboratories	0.0	12.3	21.0	29.7	37.0	<b>3.91</b>	<b>1.036</b>
Library	14.5	4.3	15.2	39.1	26.8	<b>3.59</b>	<b>1.322</b>
Reference materials (books, encyclopedia)	8.7	23.9	17.4	31.9	18.1	<b>3.27</b>	<b>1.253</b>
E- materials (e-books, journals)	21.0	13.8	29.0	18.1	18.1	<b>2.99</b>	<b>1.378</b>
Printing devices (printers, photocopiers)	13.8	23.9	33.3	20.3	8.7	<b>2.86</b>	<b>1.154</b>
Computers (Desktops, laptops)	10.9	26.8	26.8	21.0	14.5	<b>2.84</b>	<b>1.160</b>
Projectors	25.4	37.7	18.1	11.6	7.2	<b>2.38</b>	<b>1.191</b>

n = 138: *Field Data, March, 2020*

Table 1 shows that the respondents varied in their rating of the adequacy of the instructional materials in their schools. Out of the 13 instructional materials, 9 of them were rated above average (3.00). The 9 materials included textbooks, furniture (desks, chairs), black/whiteboards, writing materials, laboratory reagents, laboratory facilities, laboratories, library and reference materials (books, encyclopedia). A close examination reveals that these are minimum mandatory instructional materials expected in a secondary school. They are relatively less expensive to procure, operate and maintain. In most cases, these materials are directly used with minimum extra expenditure. These materials were also less expensive and easily available in the local markets. However, the remaining 4 materials were rated below average (3.00) indicating limited availability. The 4 materials included e- materials (e-books, journals), printing devices (printers, photocopiers), computers (desktops, laptops), and projectors. Observations of the four materials indicate that they were expensive materials in terms of the cost of procurement, operation and maintenance. Their availability and use requires prior installation of certain vital and frequently expensive infrastructure like electricity, internet connectivity, etc.

The rating of each constituent instructional material was scored on a scale of 1, indicating very inadequate, to 5, indicating highly adequate in the respective schools. Since adequacy of instructional materials is a multidimensional concept captured by the above basic materials, it was measured by a composite index score, known as Instructional Material Adequacy Index. The composite index score summarized all the 13 basic instructional materials into a single number. The individual scores of the 13 basic materials for each respondent were summed up to form an overall adequacy index score of instructional materials in the sampled schools (reliability coefficient,  $\alpha = 0.902$ ).

The composite index score for the overall adequacy of instructional materials varied from 13, indicating not adequate to 65, indicating highly adequate. The higher the score, the higher was the level of adequacy of instructional materials in the sampled schools, and vice versa<sup>1</sup>. The composite index score had a mean score of 48.3405 and a standard deviation of  $s = 9.3430$ .

The findings indicated that poor working conditions, especially in school facility and resources, make it more difficult for teachers to prepare their lessons and deliver adequate instruction to their students. He states that even excellent teachers will struggle when faced with poor facilities and lack of resources. Availability and quality of instructional materials like textbooks, stationeries, and teaching aids enhance the commitment of teachers and determines the extent to which set goals and objectives will be attained (Yara & Otieno, 2010). Congested classrooms, limited physical facility negatively impact on the quality of teaching and learning. Some schools may not have adequate classrooms, the classrooms are congested and there is hardly any space for movement. Lighting and ventilation may also be very poor (Njiru, 2014).

### Levels of Adequacy of Teaching – Learning Materials in Sampled Secondary Schools

After establishing that the sampled schools had instructional materials, the study went further to assess their level of adequacy in the sampled secondary schools. In this study, thirteen basic instructional materials were identified and the 138 sampled classroom teachers and heads of departments asked to rate their level of adequacy in their respective schools. The identified basic materials included textbooks, furniture, library, e- materials, reference materials, laboratories, laboratory facilities, laboratory reagents, black/whiteboards, writing materials, computers, printing devices and projectors. Respondents requested to rate the level of adequacy of these materials on a five-point Likert scale ranging from 1 to 5. The scale was a continuum from minimum adequacy

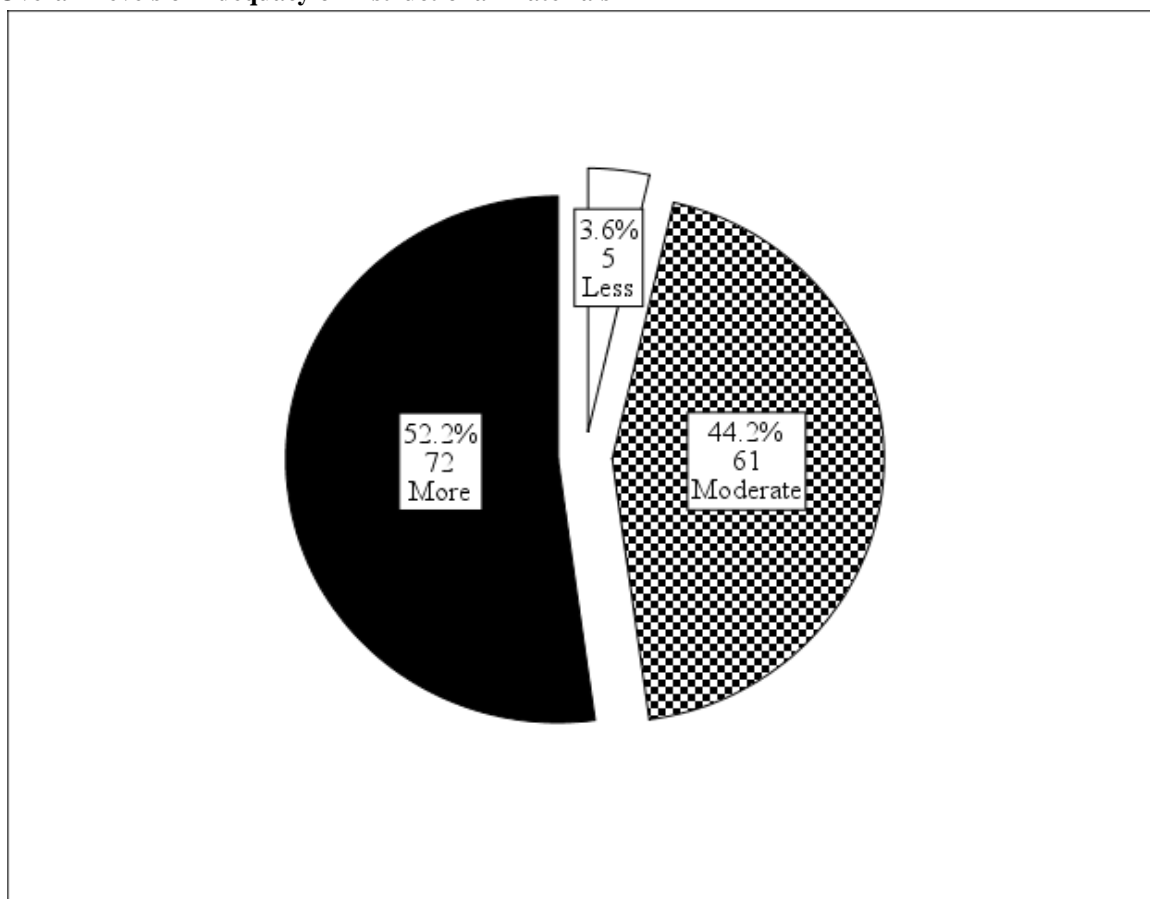
<sup>1</sup>  $13 \times 1 = 13$  (Not adequate)  
 $13 \times 3 = 39$  (Moderately adequate)  
 $13 \times 5 = 65$  (Highly adequate)

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to maximum adequacy. From the scale, 1 meant very inadequate (VI), 2 was inadequate (I), 3 was moderately adequate (MA), 4 was adequate (A) and 5 meant highly adequate (HA). The higher the score, the higher was the level of adequacy of a particular instructional material in the school, and vice versa. Table 8 shows the rating of the adequacy of individual instructional material in the sample schools.

The levels of adequacy were collapsed into three categories. The levels included a score of 13-30 (less adequate), a score of 31-47 (moderately adequate) and a score of 48-65 (more adequate). Figure 1 below Summarizes the levels of adequacy of instructional materials in the sampled schools.

**Figure 1. Overall Levels of Adequacy of Instructional Materials**



*Field Data, March, 2020*

Figure 1 indicates that 52.2 percent (72) of the respondents rated the instructional materials to be more adequate, 44.2 percent (61) rated it as moderately adequate while 3.6 percent (5) considered it to be less adequate in their schools. This suggests that majority of the schools had adequate instructional materials to enable effective teaching and learning. Such teachers are expected to be more productive in their service delivery to students. Previous studies such as Ingersoll and Strong (2011) support these observations by arguing that adequacy of instructional materials makes it easier for the teachers to prepare their lessons and deliver adequate instruction to their students. Lumuli (2009) add that provision of adequate learning facilities at all levels enhances the quality and relevance of imparted skills of learners.

### **The influence of adequacy of instructional material on teacher commitment**

The study sought to establish the influence of adequacy of instructional material on the teacher commitment and Table 6 shows the responses

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**Table 2. Influence of the Adequacy of Instructional Material on Teacher Commitment**

		Ratings (n=138)				
Instructional materials and teacher commitment		SA	A	UN	D	SD
No		%	%	%	%	%
1	Adequacy of text books in this school influences teacher commitment	69.9	20.1	10.0	0.0	0.0
2	Adequacy of furniture in this school influences teacher commitment	56.8	13.0	6.5	13.6	10.0
3	Adequacy of reference books influences teacher commitment	18.1	13.9	17.4	23.9	8.7
4	Adequacy of laboratory facilities influences teacher commitment	29.9	21.2	3.6	21.5	23.8
5	Adequacy of stationery influences teacher commitment	32.9	20.4	10.1	22.9	13.9
6	Adequacy of computers influence teacher commitment	14.5	21.0	26.8	26.8	10.9
7	Adequacy of photo copying resources influence teacher commitment	8.7	20.3	33.3	23.9	13.8
8	Adequacy of teaching aids influence teacher commitment	18.2	20.0	4.3	32.4	25.1
10	Adequacy of class rooms influence teacher commitment	19.8	25.1	7.2	34.6	13.3

From Table 2 it is clear that adequacy of text books influences teacher commitment to their professional roles as 90% of the respondents agreed with the statement while 10% of the respondents were undecided. This finding could be attributed to the fact that the Government of Kenya has been supplying texts books to schools. This therefore indicates that most schools have adequate text books.

The same Table 2 indicates that 69.8 of the respondents agreed with the statement that adequacy of furniture influences teacher commitment but 23.6% disagreed with the statement while 6.5% were undecided. This shows that a number of schools in the sub county do not have adequate furniture and this may influence teachers' commitment negatively. According to Table 2, it is clear that 32% of respondents agreed with the statement that adequacy of references books influenced teacher commitment but 32.6% of the respondents disagreed with the statement while 17.4% were undecided. This finding shows that a critical mass of the respondents indicated that schools lack reference books. This may suggest that the government is providing class readers but not reference books. This is likely to impact negatively on teacher commitment. As far as laboratory facilities are concerned, Table 2 shows that 51.1% of the respondents agreed that adequacy of laboratory materials influence teacher commitment but 45.3 % disagreed with the statement while 3.6% were undecided. Concerning stationery, it is observed from Table 2 that 53.3% of the respondents agreed with the statement that adequacy of stationery influences teacher commitment but 36.8 disagreed with the statement while 10.1% were undecided.

In relation to adequacy of computers, Table 2 shows that 35.5% of the respondents agreed with the statement while 37.7% disagreed while 26.8% were undecided. This finding point to the fact that some schools in the Sub County may not be having computers and this is likely to influence their commitment negatively. As far as photocopying resources, Table 2 shows that 29% of the respondents agreed with the statement that adequacy of photocopying resources influence teacher commitment but 46.7% disagreed with the statement while 33.3% were undecided. This finding points to the fact that some schools do have not photocopying resources and this may affect teachers' commitment. Table 2 also shows that 38.2% of the respondents agreed with the statement that adequacy of teaching aids influences teacher commitment but 57.5 disagreed with the statement while 4.3% were undecided. Finally, Table 2 shows that 44.9% of the respondents agreed with the statement that adequacy of classrooms influence teacher commitment but 47.9% of the respondents disagreed while 7.2 were undecided

The findings of this study are in agreement with those of Bukoye (2018) whose study notes that instructional materials are essential tools in leaning every subject in the school curriculum. They allow the students to interact with words, symbols and ideas in ways that develop their abilities in reading, listening, solving, viewing, thinking, speaking, writing, using media and teaching. Just like the findings of this study she noted that instructional materials are print and non-print items that are designed to impart information to students in the educational process. They include items such as prints, textbooks, electronic media, magazines, newspapers, slides, pictures, workbooks among others. She notes that instructional material play a very important role in the teaching/learning process and greatly influence and motivate teachers to perform their roles effectively.

After determining the level of teacher commitment to their professional roles and level of adequacy of the instructional materials, the first objective went further to establish whether the two latter variables are in any way related. From literature review, the study assumed the higher the level of adequacy of instructional materials positively influence the level of teacher commitment. The objective was guided by a null hypothesis which stated that "adequacy of instructional materials does not significantly influence on commitment of teachers to their professional role". Because teacher commitment and adequacy of instructional materials were all

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measured as a composite index score on a likert scale, Pearson's Product Moment Correlation Coefficient ( $r$ ) and multiple regression ( $r^2$ ) were used to analyze.

Pearson's Product Moment Correlation Co-efficient ( $r$ ) is a method of statistical relationship used to measure the degree of relationship/association (in terms of strength and direction) between two or more variables. The goal is to see whether the two variables covary and to quantify the strength of the relationship between them. It was used in this study to determine the strength and the direction of influence (relationship) between teacher commitment and adequacy of instructional materials. For the method to be used, the two variables were quantified and measured on a continuous (ratio) scale using the generated composite index scores. The composite index score for teacher commitment and a composite index score for adequacy of the instructional materials were used. On the basis of the expected association, the index score for adequacy of instructional materials was the independent variable, while teacher commitment index score was the dependent variable.

**Table 3. Correlation Matrix of Teacher Commitment and Instructional Materials**

		Teacher commitment index score	Instructional Material adequacy index score
Teacher commitment index score	R	1	.239**
	Sig. (2-tailed)		.005
	N	138	138
Instructional Material adequacy index score	R	.239**	1
	Sig. (2-tailed)	.005	
	N	138	138

\*\* . Correlation is significant at the 0.01 level (2-tailed).

*Field Data, March, 2020*

Table 3 indicates that there was a moderate positive correlation between the level of teacher commitment to professional roles and level of adequacy of instructional materials ( $r = 0.239$ ). This suggests that the higher the level of adequacy of instructional materials in schools, the higher was the expected level of teacher commitment to professional roles, and vice versa. Since  $p \{0.005\} < 0.01$ , the null hypothesis was rejected, hence the conclusion that adequacy of instructional materials significantly influence commitment of teachers to their professional role in secondary schools. This was attributed to the fact that availability of instructional materials make is easier for a teacher to prepare their lessons and deliver adequate instruction to students. This enhances the commitment of teachers and determines the extent to which set goals and objectives will be attained. These findings support previous studies such as Thomas and Green (2015) who observed that the availability of teaching-learning resources provides some of the means by which a teacher transforms children's education into daily learning opportunities. Adekunle (2008) notes that the availability of teaching-learning resources provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more.

Thomas and Green (2015) argue that the availability of teaching-learning resources provides some of the means by which a teacher transforms children's education into daily learning opportunities. Provision of adequate learning facilities at all levels enhances the quality and relevance of imparted skills of learners (Lumuli, 2009). Performance in an examination is linked to the state of teaching-learning resources in schools (Juma, 2011). Adekunle (2008) notes that the availability of teaching-learning resources provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more.

Teaching and learning resources assist a teacher to overcome physical difficulties that could have hindered his effective presentation of a given topic. A study conducted by Nyongesa and Lumuli in 2009 on public secondary schools of Bungoma Sub-County on how education resources were being utilized observed that 50% of schools lacked the adequate provision of teaching and learning resources which was greatly hindering attainment of qualitative objectives of education. These schools had inadequate classroom and teaching-learning resources yet accommodated more student than recommended. This exerted a lot of pressure on teachers who compromise their methodology as part of an adaptive mechanism.

The teacher facilitates learning by acting like a coach, resource guide and companion in learning. The purpose of teaching-learning resources improves the quality of teaching and learning. It helps teachers to teach effectively in convenience and comfortable surroundings (Marzano et al., 2011). The lack of teaching-learning resources inevitably hampers the teaching; depress the spirit of children and enthusiasm of the teachers. Resources help the teacher to organize and manage the classroom environment as an



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efficient learning environment and thereby maximize engagement roles (Kyriakides, 2008). Resources promote good preparation, smoothness and momentum lesson pacing and clarity about when and how the student can get help and about what options are available when they finish. Teaching-learning resources enable the teachers to bring into a classroom, the situation which was impossible to be possible.

### CONCLUSION

Most schools had basic instructional materials to enable effective teaching and learning but were not adequate. There was also variation of quantity and quality within schools. It was noted that projectors, printers and computers were not adequate in most schools making it difficult for teachers to utilize ICT in teaching and learning and this affected their commitment especially on the use of ICT in the teaching learning process. It is evidence that provision of adequate learning facilities at all levels enhances the quality and relevance of imparting skills to learners. Performance in examination is also linked to the state of teaching learning resources.

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