

Stakeholder Involvement in Data collection for M&E and Performance of Literacy and Numeracy Educational Programme in Public Primary Schools in Nairobi County, Kenya

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ABSTRACT

Kenya's education has faced many challenges especially in terms of literacy and numeracy skills. This has been caused by swelling enrolment in schools. The purpose of this article is to establish the extent to which Stakeholder Involvement in data collection influence performance of literacy and numeracy educational programme. Despite numerous initiatives by key educational stakeholders to improve the performance of learners, there has been limited achievement on learner skills. This study adapted descriptive research survey design and correlational research design. Data collected from the respondents by use of questionnaires and interview guide from a target population of 2053 and a sample size of 335. Data was analyzed using SPSS version 25 and results presented in tables and figures. Pearson moment correlation coefficient (r) were computed. The coefficient of determination R^2 is 0.436 indicating that R^2 was the coefficient of determination of this model and depicted that data collection explained 44%. The remaining 56% was explained by other factors. The overall F statistics 215.779 with $p < 0.000 < 0.05$ implying a statistical significant relationship between data collection and performance of literacy and numeracy educational programme. Recommendations were policy makers should embrace the methodology of engaging all the stakeholders in collecting data. The results showed that Stakeholder Involvement in data collection strongly influenced the performance of literacy and numeracy educational programme as shown by a correlation coefficient, which was statically significant. Recommendations for further research on data management which was lacking and specifically involvement of all stakeholders in data collection in intervention of programme.

Keywords: Stakeholder involvement, Data collection, Literacy, Numeracy educational programme, Performance.

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Highlights of this paper

- The purpose of this article is to establish the extent to which Stakeholder Involvement in data collection influence performance of literacy and numeracy educational programme.
- The results showed that Stakeholder Involvement in data collection strongly influenced the performance of literacy and numeracy educational programme as shown by a correlation coefficient, which was statically significant.

1. INTRODUCTION

Performance of any project which can be measured through the extent to which results have been achieved is dependent on availability of resources and enough data collected for making any learning changes. Collection of data and monitoring of learning process must be continuous in all learning institutions for both teachers and learners for implementing change as required (Kimbui, 2012). Class participation is essential and data collected through feedback information differed in schools and it was scanty meaning could not be relied on as posited by (Laursen & Hassi, 2012). However the data collected through exams and reading fluency in classrooms showed great improvement of the intervention programme. Data use is defined as the activities that take place during the interaction of test scores, grades and other assessment data related to school work (Spillane, 2012).

Positioning data information, gathering and sharing of already analyzed data is key and vital to every person involved in the project. Information of data collected is divided simultaneously to stakeholders taking lead in teaching and changing activities methods keeping documents of their best practices. Involving all stakeholders in data collection is just half of the PM&E cycle which is very critical in sharing the information required in the programme as argued by Hagen-Zanker et al. (2012). Data collection process helps in improving effort that provide accurate information which helps formulating correct decisions all through plan- do- check- act- cycle. Collection of data is very critical in tracking and assessment which includes all participants at different levels in obtaining the results and seeing the progress of the programme interventions. In this case stakeholders looking at it as their own ideas and not an imposed thing into their lives. So to achieve good quality performance in education teachers are key stakeholders in producing quality grades and ensuring effective teaching as well as meeting the market demands of literate citizens as examined by Munirul (2015); Thangeda, Baratiseng, and Mompati (2016). Data collected for education purposes in schools assessment are used by policy makers, administrators and teachers (Moller, 2015). To this an individual needs to source quality characteristic that will test and measure, the importance of data collected and how to use that data.

From the empirical reviewed, stakeholder involvement in data collection established that collaborating stakeholders in data collection for monitoring and evaluation in education improves the quality of education and the learning skills. Therefore the study is to examine how stakeholders' involvement in data collection influence performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya. How does stakeholders' involvement in data collection for monitoring and evaluation influence performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya? On this view involvement of all the stakeholders in data collection is very vital in every project and educational programme are no exceptional.

2. LITERATURE REVIEW

Performance of any project which can be measured through the extent to which results have been achieved is dependent on availability of resources and enough data collected for making any learning changes. Learning institutions require systems which are updated and can give transparency information to compete with the global

economy but many organization and institutions are missing this requirement as posited by Day (2013). Performance of any programme depends on the commitment of the stakeholders in collecting reliable data for the programme to yield better results. Data collection is a systematic approach which helps in generating and measuring information from a wide area of interest so as to get required information on the basis of accuracy and completeness. Many countries in the world have introduced the use of data in education for decision making, accountability, performance management and feedback for the learner's results (Tine, Prøitz, & Guri, 2017).

Prøitz, Mausethagen, and Skedsmo (2017) posit that data used by school authorities on assessment of schools, classroom observations, and teacher and learner background is crucial to critically assess and discuss the possible consequences of the progress of education and particularly literacy and numeracy educational skills. Many school are missing this in big aspect of involving all the key stakeholders like teachers in collecting data and keeping good records about their learners in schools. Learning instructional materials used by teachers largely influence the performance of learners when helping to collect data on materials which are appropriate in learners achievement (Kang'ahi, Indoshi, Okwach, & Osodo, 2012; Mackatiani, 2017) Participation of stakeholders in gathering and handling data analysis is key in any programme for them to have improved outcomes (Piper & Spratt, 2017).

Njuguna (2016) on elements affecting performance of M&E structures in private organizations companies financed education projects in Muranga found out budget allotment, stakeholder participation, teaching and sturdiness of the monitoring group influence M&E structures and help in generating reliable information. Data collection has been noted to be an issue for most of the programme. This is emphasized by the study carried out by Matonda, George, and Emmah (2013). on the influence of PM&E proceeds towards application of quality assurance in Kenya secondary schools. Dissemination of information gathered in most cases it is never given to the right people or disseminated when it is too late.

A gap in this study, lack of proper involvement of all participants yield poor implementation results and failure of projects. Involvement of stakeholders needs to go beyond use of donations of free work and money contributions and reach out for choices to be made. Individuals need to appreciate fundamental flexibilities to be able to communicate what needs to be openly and develop their own decision. Long (2009) noted that recognition and support for a more influential association of

Perspectives, learning needs and skills demonstrates a contrasting choice for benefactor-driven and pariah-driven growth. Findings were, without proper participation of stakeholders contributing to project output failure is experienced. The participatory monitoring and evaluation process is not just about using participatory techniques in a traditional monitoring and evaluation environment, it is also about a more systematic way of doing things.

National and international educational policymakers have based more and more on quality and what children do well in school and if these skills are helpful after school leaves (Wagner, Murphy, & De Korne, 2012). The focus is evident on the new sustainable development goals adapted in 2015, Objective number four, which ensures inclusive and equitable quality education and encourages lifelong learning aimed at the highest number by 2030 ensuring that all young people and a significant adult achieve literacy and numeracy skills (United Nations, 2015). These evaluation methods used in learning institutions are instrumental in the transformation of education and in improving productive efficiency while retaining high performance in literacy and numeracy (Hanushek & Kimko, 2000). There is lack of clarity about the level of involvement in the learning process about the availability of learning materials and thus little achievement. In Nairobi County, teachers' participation in the learning process is required, as both learners and teachers experience absenteeism in schools.

According to the researchers, those with a low level of education are the ones who found it difficult to embrace the move, as it required a lot of study and application of information, which some of them lacked. Government

research courses and the proper encouragement given to them need to be coordinated to those involved in research. It was also found out that many stakeholders' were never at any time involved in collecting data for monitoring and evaluation on the educational programme in the County.

2.1. Theoretical Framework

The study anchored on stakeholder theory.

2.1.1. Stakeholder Theory

Theoretical framework has a mixture of numerous well organized concepts with a view to breaking down variables and the investigation of a certain phenomenon in a given place, taking together many variables, one against the other (Kothari, 2004). Theory of stakeholders had been based on Barnard's work. Freeman (1984) Francisco and believed to be the father of strategic management, corporate planning, stakeholder theory, systems and theories of organization. The stakeholder theory is based on the (Mitchell, Agle, & Wood, 1997), which stated that relationship with an agency is a contract under which one or more persons shall engage another person to perform a certain service on their behalf. Theory of stakeholder engagement has a part to play in policy formulation and application.

Interpreting disparities in participation depends on which aspect the focus is placed on so that good contribution to decision making affects project creation and execution of tangible inputs and results which benefits the beneficiaries of the project. The stakeholder theory relationship with the study variables is full involvement of stakeholders in the participatory monitoring planning phase and project assessment results. It is commonly used by policy makers, scholars and development agencies. The priorities and strategies of the practitioners and stakeholders involvement aim visualized influencing data collection interpretation, thus positive knowledge generated. The findings used to take corrective measures and make modifications where appropriate in the programme and the related institutions. With the Aid of this theory collection of monitoring and assessment methods was calculated and evaluated, used to identify, implement initiatives and exploit findings. Participation of stakeholders at various levels align with the theory in that when stakeholders create project priorities, track and evaluate then the schemes are driven by this theory.

This theory of stakeholders has a correlation with the study when the assigned stakeholders responsible for data collection and in particular monitoring and assessment selection of tools, tracking schedules, and assessment plan activities and participating in the events being undertaken. Mulongo (2013) agrees with this theory which includes all stakeholders as most of the information is shared and resources are used, because they are built by the same people. However Kiptum, Mandela, and Murira. F (2018) differ from the previous statement that involves the full stakeholder make good results. In their view, there must be a suitable atmosphere for any progress to be discovered that influences the effectiveness and satisfaction at every type of work conducted. This study found out that not only these elements enhance performance as indicated but there are several factors that lead to sound performance as found in the research results. The theory of stakeholders is about institutional management and ethics which deals with values impacting school planning and management. This can be overt or indirect, how schools manage relationships between parents, adolescents, teachers, educational policy makers and funders (Freeman & Daniel, 2007). Measures and events embedded the success of the programme and the profound theory of transition.

2.2. Conceptual Framework

The study conceptual framework is in Figure 1.

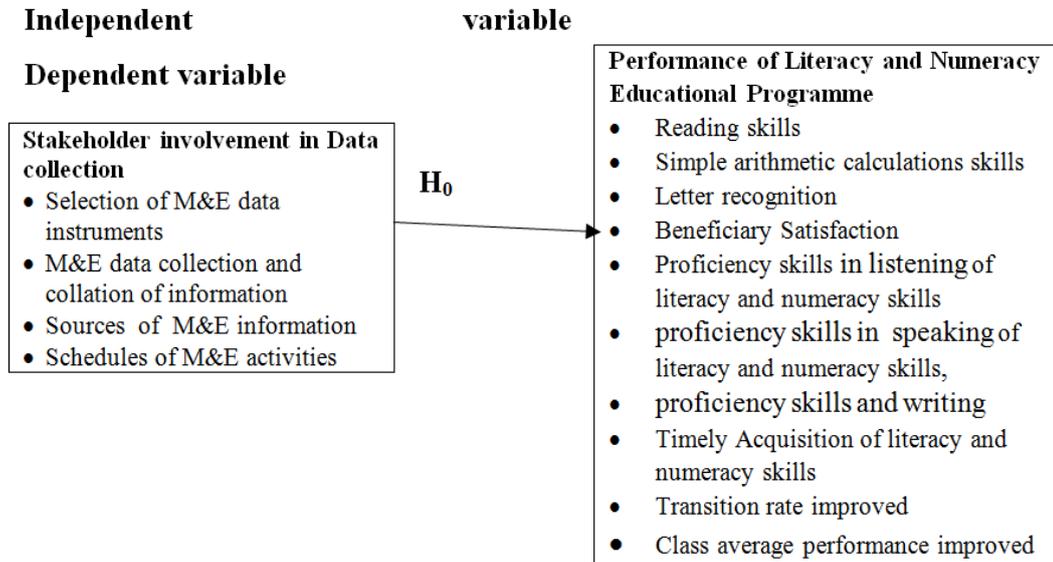


Figure-1. Conceptual framework of influence of stakeholder involvement in data collection and performance of literacy and numeracy educational programme.

3. METHODOLOGY

The study article used the concept of pragmatism which is a non-committal conceptual framework in real life. In this sense consideration of pragmatism tends to apply mixed research methods, which offer a more systematic approach to study data collection and interpretation, rather than using either one qualitative or quantitative method (Creswell & Plano Clark, 2011). According to Migiro and Magangi (2011) states that a study is facilitated by mixed methods using several approaches to data collection and analysis in a single sample, considering the limitations of using a single mode. This research gathered quantitative data using standardized questionnaires while qualitative data was obtained by use of interview guides. This study adapted the methodology of descriptive survey research and the methodology of correlational analysis. According to Cooper and Schindler (2006) a comprehensive study of research design looks at when, where and when what a phenomenon. Correlational research design was intended to help get the direction and intensity of the relationship between stakeholder participation, literacy and numeracy educational programme. The unit of analysis was a continuous and completed educational programme in the field of literacy and numeracy educational programme while the Head Teachers, Lower Primary Schools Teachers, Curriculum Support Officers and TRI International officers were inquiry of analysis.

A Sample size of 335 respondents from a target population of 2053 was obtained using the Yamane (1967) formula while the respondents data is collected through questionnaires and interview guides. Purposive Sampling employed to 33 Head Teachers, 3 Curriculum Officers, and 5 Triangle Research International Institutes with in-depth research information and 294 Lower Public Primary School Teachers selected from 1800 teachers through simple random sampling. Data collected were both qualitative and quantitative data, crosschecked for precision, coded and analyzed on Thematic areas. Quantitative data was analyzed through employing descriptive and inferential statistics generated thus the descriptive results were presented in tabular forms using, frequencies, arithmetic means and standard deviation while inferential statistics were obtained using Pearson’s Product Moment correlation while F-test was used to test hypotheses. Both Quantitative and Qualitative data clarified the impact and success of stakeholder involvement in data collection and performance of literacy and numeracy educational

programme. After data collection the information was edited, coded analyzed, checked all blank answers and keyed in SPSS software version 25 details for actual analysis. The data subjected to Normality test, done through checking and found to follow normal distribution.

Pearson's Product Moment correlation coefficient(r) described the strength of relationship between the independent predictor variable and dependent variable. The test carried out on a two-tail test since it allowed for either influence to the positive or negative direction while hypothesis testing tested at 95% level of confidence and significance level of .0.05. The hypothesis with linear relationship analyzed using simple regression analysis and Pearson's Product Moment Correlation used for interpretation of results. Together with simple graphics analysis, descriptive statistics form the basis of virtually every quantitative analysis to data. Correlation analysis to establish the relationship between the independent and dependent variables employed.

Interpretation of the results for the linear relationships of this study was based on; for a weak correlation r ranging from +0.10 to +0.29; moderate correlation between +0.30 to +0.49; while strong correlation from +0.50 to +1.0 (Shirley, Stanley, & Daniel, 2005). Hence, $r=0.63$ implies a positive strong relationship between stakeholder involvement in data collection and performance of literacy and numeracy educational programme.

4. RESULTS

The study's principal objective was to establish the extent to which stakeholder's engagement influence performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya. The total number of questionnaires was 335 and only 281 respondents were filled and returned, reflecting a response rate of 84 percent generally sufficiently representative to interpret and generalize results for the population. The findings are in tandem with Richardson (2005) studies which state that a return rate of 50 per cent is appropriate.

4.1. Overall Descriptive Analysis of Performance of Literacy and Numeracy Educational Programme

As pertains to performance of literacy and numeracy educational programme the respondents were subjected to several statements to solicit their opinions on a likert scale of 1-5 whereby; Strongly disagree(SD)=1, Disagree(D)=2, Neutral(N)=3, Agree(A)=4 and Strongly Agree(SA)=5 as depicted on Table 1.

As shown in Table 1, there were 10 statements generated enough data on performance of literacy and numeracy educational. The means of these statements summed were up and used to compute the composite mean and standard deviation that resulted to 3.56 and 0.995 respectively. Statements with means below the composite mean considered to influence the performance negatively whilst statements with means above the composite mean influenced performance positively. The operationalization of the programme has generally been greatly enhanced and the initiative has benefited the learners involved in the curriculum and the teachers who have learned on the new process. Simple arithmetic calculation skills, alphabetical letter recognition skills, enhancement of reading skills, satisfaction of the beneficiaries, and general performance of all the learners in class improved. Transition level to another grade was excellent according to the findings since it was a government requirement that all learners should proceed to the next class. However, there were areas which needed more effort to be applied for example help learners on how to comprehend what they have learned.

Table-1. Performance of literacy and numeracy educational programme.

Statements	SD	F	DF	NF	AF	SAF	Mean	Std. Deviation
	(%)		(%)	(%)	(%)	(%)		
1. There is improvement in reading learning skills of the pupils due to the operation of this programme	4 (1.4%)		65 (23.2%)	27 (9.6%)	136 (48.4%)	49 (17.4%)	3.57	1.070
2. There is improvement in simple arithmetic calculations skills of the pupils due to the operation of this programme	4 (1.4%)		63 (22.4%)	32 (11.4%)	117 (41.6%)	65 (23.2%)	3.63	1.111
3. Learners improved in recognition of alphabet letters due to the operation of this programme	4 (1.4%)		57 (20.3%)	40 (14.2%)	126 (44.8%)	54 (19.3%)	3.60	1.058
4. Programme beneficiaries are satisfied with the benefits	2 (0.7%)		59 (21.0%)	44 (15.7%)	104 (37.0%)	72 (25.6%)	3.66	1.097
5. Listening learning skills was enhanced through the operation of the programme	7 (2.5%)		48 (17.1%)	58 (20.6%)	161 (57.3%)	7 (2.5%)	3.40	0.886
6. Speaking learning skills was enhanced through the operation of the programme	2 (0.8%)		53 (18.6%)	52 (18.6%)	168 (59.9%)	6 (2.1%)	3.44	0.843
7. Writing learning skills was enhanced through the operation of the programme	4 (1.4%)		51 (18.1%)	50 (17.8%)	169 (60.1%)	7 (2.6%)	3.44	0.865
8. Transition rate of learners has increased	15 (5.3%)		54 (19.2%)	23 (8.2%)	47 (16.7%)	142 (50.6%)	3.88	1.352
9. The class average performance has improved	19 (6.8%)		50 (17.8%)	20 (7.1%)	143 (50.9%)	49 (17.4%)	3.54	1.168
10. Acquisition of literacy and numeracy within times was experienced while undertaking the programme	2 (0.7%)		52 (18.5%)	40 (14.2%)	176 (62.7%)	11 (3.9%)	3.50	0.859
Composite Mean and SD							3.56	0.995

This also means that if the learners were not able to comprehend what they have read then simple calculation would be a problem. Most learners have slightly improved on speaking skill and could be able to pronounce the letter sounds correctly even without the help of the teacher but a few had a problem on the mix up of the first language and the second language. Writing skills enhanced through the operation of the programme but more practice is required. Due to the introduction of the new methods and additional of resources for example textbooks and other reading materials great improvement on learners is experienced. Acquisition of literacy and numeracy within time did not influence performance of literacy and numeracy educational programme positively but had better results before the intervention of the programme. The interviews schedule conducted revealed that, differing information on performance of the programme with few cases on some learners. Some are below average in reading skills amid current textbook allocation as pointed by one Curriculum Support Officer.

“Most learners who have not been able to attend school on a regular basis can now attend classes without interruption, as most of them have been provided with textbooks and written material by the government and the implementation organization.” The interviews also revealed that the teachers were still relying on the old teaching methods whereby they have not embraced the new methodology, “Teachers have avoided the use of modern textbooks hence follows the old methodology of self-centered rather than learner centered. Frequent classroom visits should be embraced to encourage the teacher’s to adapt TUSOME new methodologies of teacher guide that has new methodologies for teaching these skills.” Research Triangle Institute Monitoring and Evaluation Officers. The interview with the Curriculum Support Officer collaborated with the quantitative results who indicated that: “Listening, speaking and writing skills has been enhanced since many learners have their own text books and can be able to at least do some practice of the work taught in the absences of the teacher.” Curriculum Support Officer, Langata Sub-County.

Table-2. Stakeholder involvement in data collection and performance of literacy and numeracy educational programme.

Statements	SDF (%)	DF (%)	NF (%)	AF (%)	SAF (%)	Mean	Std. Deviation
Selection of M&E data instruments	7 (2.5%)	49 (17.4%)	53 (18.9%)	93 (33.1%)	79 (28.1%)	3.67	1.134
1.M&E data collection instruments were appropriate for the designed work							
2.There was available M&E data collection tool	6 (2.1%)	50 (17.8%)	53 (18.9%)	93 (33.1%)	79 (28.1%)	3.67	1.127
3.The M&E data collection methods used suited the information required	5 (1.8%)	51 (18.1%)	49 (17.4%)	96 (34.2%)	80 (28.5%)	3.69	1.121
M&E data collection and collation of information							
4.M&E data collected was sorted and stored in the data base	6 (2.1%)	49 (17.4%)	56 (19.9%)	97 (34.5%)	73 (26.1%)	3.65	1.109
5.M&E data collation was coded in the systems and filled for future use	15 (5.3%)	40 (14.2%)	54 (19.2%)	91 (32.5%)	81 (28.8%)	3.65	1.189
6. The M&E data collected was verified and analyzed.	16 (5.7%)	30 (10.7%)	56 (19.9%)	97 (34.5%)	82 (29.2%)	3.71	1.162
Sources of M&E information							
7.The sources of M&E information collected was reliable and trust worthy	6 (2.1%)	50 (17.8%)	61 (21.7%)	92 (32.7%)	72 (25.7%)	3.62	1.112
8.Data collected for M&E was from the right respondents	4 (1.4%)	30 (10.7%)	36 (12.8%)	91 (32.4%)	120 (42.7%)	4.04	1.055
Schedules of M&E activities							
9.Proper coordination for M&E activities was well planned	9 (3.2%)	53 (18.9%)	60 (21.4%)	110 (39.1%)	49 (17.4%)	3.49	1.083
10.Schedules existed that displayed how M&E activities were carried out	10 (3.6%)	70 (24.9%)	30 (10.7%)	72 (25.6%)	99 (35.2%)	3.64	1.285
11. Assigning of M&E responsibilities were properly fulfilled by those assigned to carry out the task.	5 (1.8%)	60 (21.4%)	35 (12.5%)	81 (28.8%)	100 (35.5%)	3.75	1.199
Composite Mean and SD						3.69	1.015

Interview with Research Triangle Institute Monitoring and Evaluation Officers indicated that class average performance had significantly improved. More practice however is required to make can implementation a reality; “More materials such as learner’s textbooks and teacher’s guides provided to schools have helped to improve learning skills, but more focus should be placed on using modern methodologies .” Research Triangle Monitoring and Evaluation Officer.

4.2. Overall Descriptive Analysis of Stakeholder Involvement in Data Collection

Stakeholder's involvement in data collection in any project is vital, especially when trying to identify those who will be involved project process and their power of influence in the project. The responses presented in [Table 2](#).

As shown in [Table 2](#), the overall analysis on composite mean was 3.69 and the standard deviation was 1.015. M&E data collection instruments were appropriate for the designed work. Out of 281 respondents who participated. This had a line item mean score of 3.67 and standard deviation of 1.134 against a composite mean of 3.69 and standard deviation of 1.015. This implies that data collection tools are used although not appropriately done for the intended work. There is need to improve the current data collection instruments to enhance objectivity in collection of required data as regards programme. Where help is needed, M&E experts among the stakeholders may be called upon to make corrections where necessary. A standard deviation of 1.134 above the composite of 1.015 indicated the opinions did not converge.

Second statement that there was availability of data collection tools for M&E. A mean score of 3.67 derived on this statement compared to a composite mean of 3.69 and standard deviation of 1.127 which was lower than the composite mean of 3.69 and standard deviation of 1.015. This implies that data collection tools may have been done but not circulated for the respective team to make use of them. Hence, there is imperative need to ensure all the M&E data collection tools are made readily available for effective and efficient data collection processes among the stakeholders for the sake of the program. Standard deviation of 1.127 was above the composite 1.015 meaning that opinions were inconsistent.

Thirdly, statement that M&E data collection methods were suitable for information required. According to the analysis a line item mean was same as the composite mean score of 3.69 Standard deviation 1.121 implied that data collection selected were averagely suitable and positively influenced the programme. A standard deviation of 1.122 against 1.015 showed divergence in opinions.

Fourthly, statement that monitoring and evaluation on data collection was sorted and stored in the right database. A mean score of 3.65 was obtained for the line item and Standard deviation 1.109 which was lower than the composite mean of 3.69 and Standard deviation 1.105. This implies that the process of sorting and storing collected data was not being handled properly and hence it negatively influenced the program. This suggests that competence of skills should be strengthened around data sorting and storage so as to improve on the quality control measure for the data collecting to inform meaningful change. However, with a standard deviation of 1.189 against 1.015 opinions did not converge.

Fifthly, respondents shared their reactions on the statement that the collected data for M&E was appropriately coded and filled in the system for utilization in the future. This had a mean score of 3.65 and a Standard deviation of 1.189 which was lower than composite mean of 3.69 and Standard deviation of 1.015. This implies that the line item influences performance of literacy and numeracy educational programme negatively. This suggests that stakeholders who are not competently trained in data coding should seek to be trained and also practice more to perfect the skill to avoid current anomalies that are being experienced as far as proper coding is concerned. A higher standard deviation of 1.189 proved that opinions recorded lacked consistency.

On the sixth statement, that M&E data collected was verified and analyzed. This had a mean score of 3.71 Standard deviation of 1.62 which was high than the composite mean 3.69 and Standard deviation of 1.015. This implies that M&E data collected was verified and analyzed accordingly and hence positively influenced the information required and informed the best practices. Further, this would positively influence performance of the programme. A standard deviation of 1.162, quite above the composite mean of 1.015 which indicated divergence in opinions shared by the participants in the study.

On the seventh statement that sources of Monitoring and evaluation information collected was reliable and trust worthy. A line item mean score was 3.62 with Standard deviation of 1.112 which was below the composite mean of 3.69 and Standard deviation of 1.015 which implies that sources of M&E information collected were not reliable and could not be trusted. Thus the line item influenced performance of literacy and numeracy educational programme negatively. Thus, it is important to involve all the stakeholders at every stage of the program implementation to contribute towards assessment of sources of information be utilized at this program. A high standard deviation of 1.112 was recorded against 1.015 which suggested that opinions did not converge on this statement.

On the eighth statement, that data collected for M&E was from the right respondents A line item mean score obtained was 4.04 and Standard deviation of 1.055 which was above the composite mean of 3.69 and Standard deviation of 1.015 implying that M&E information collected came from the right respondents. This influences performance of literacy and numeracy educational programme positively. This implies that engaging the right people to give the required information would reflect true reflection of how the programme is running and inform the best decision making process where necessary.

On the ninth statement, that proper coordination of M&E activities was well planned. A line item was a mean score 3.49 Standard deviation of 1.083 which was lower than a composite mean score of 3.69 and Standard deviation implying that the line item does not influence the performance of literacy and numeracy educational programme positively. This also implied that proper coordination lacked for M&E activities and that planning was not well. This further calls for proper delegation of assignments of who is supposed to do what and what point in time. A higher standard deviation of 1.083 was obtained against 1.015 which indicated that opinions did not converge.

The tenth statement, stated that schedules existed that displayed how M&E activities were carried out. From this statement, a mean score 3.64 and standard deviation of 1.285 which was lower than the composite mean of 3.69 and standard deviation of 1.015 implying that schedules were not being carried out correctly to display Monitoring and evaluation activities. Hence, there is need to develop schedules using Gantt chart to avoid overlaps of activities and even time overruns during implementation of the program. A standard deviation of 1.285 against composite standard deviation of 1.015 obtained on this statement states that opinions did not converge.

The eleventh and the last statement that assigning of M&E responsibilities were properly fulfilled by those assigned to carry out the task.. From this statement, a line mean score 3.75 and standard deviation which was higher than the composite mean of 3.69 and standard deviation of 1.015 implying assigning responsibilities was properly executed by those who had been assigned to conduct the task.

Subsequently, in the case where tasks are not executed it could therefore either mean those assigned the task may not be aware on how to execute the tasks given to them or they lack time or even morale for to do the job required of them. It is therefore critical for follow up meetings to be conducted to ensure the assigned responsibilities are done to the latter. A standard deviation of 1.199 arrived at statement implied that opinions were not converging.

Results of interviews with key informants showed that data collection for M&E influenced performance of literacy and numeracy educational program. The results of the interviews were, therefore, consistent with the quantitative data. The following are key responses obtained from the key informants:

“The same data should be shared with all the stakeholders for better use; the information is only vital if it is stored and used appropriately, and only to the concerned officers. Data is shared only on demand and no initiative experienced in sharing the data. We need more data collection tools and also incorporation of the Teachers Performance Appraisal and Development (TPAD) for assessing teachers’ progress in the teaching

endeavor. If the Ministry wants the latest information about the programme they must first consult the RTI Directors first and then get what they require; the MoEST has no records of Private Schools in the country yet they are the ones responsible for basic education. Information is shared to all the concerned parties but it is never fully utilized, hence low performance on most programme in the MoEST". Statements from Curriculum Support Officer West land sub-county. (CSO, 2018).

4.3. Correlation Between Stakeholder's Involvement in Data Collection and Performance of Literacy and Numeracy Educational Programme

A correlation analysis conducted to establish the direction and the magnitude of the relationship between performance of literacy and numeracy education programme and stakeholder involvement in data collection. The results of correlation analysis presented in Table 3.

Table-3. Correlation analysis for stakeholder involvement in data collection and performance of literacy and numeracy educational programme.

		Performance of literacy and numeracy educational program	Data collection
Performance	Pearson Correlation	1	0.660**
	Sig. (2-tailed)		0.000
	n	281	281
Data collection	Pearson Correlation	0.660**	1
	Sig. (2-tailed)	0.000	
	n	281	281

Note: ** Correlation is significant at the 0.05 level (2-tailed).

In Table 3, the output indicates that stakeholder involvement in data collection had a strong significant positive relationship with performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya. (P-value of $0.000 < 0.05$). Given a Pearson correlation of ($r = 0.660$), a strong positive relationship emerged between stakeholder involvement in data collection and performance of literacy and numeracy educational programme.

4.4. Inferential Analysis of Performance of Literacy and Numeracy Education Programme and Stakeholder Engagement for Monitoring and Evaluation

The following hypothesis were tested using linear simple regression model to satisfy the objective.

- i) H_0 Stakeholders involvement in data collection has no significant influence on performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya.
- ii) Stakeholders involvement in data collection has significant influence on performance of literacy and numeracy educational programme in public primary schools in Nairobi County, Kenya.

The mathematical model that used for testing the null hypothesis was linear regression model as depicted in Table 3.

$$y = a + b_1X_1 + \varepsilon$$

Where:

y - Performance of literacy and numeracy educational programme.

X_1 - Stakeholder involvement in data collection.

b_1 - Regression coefficient.

a - Regression constant.

ε - Error term.

Table-4. Model summary for stakeholder involvement data collection and performance of literacy and numeracy educational programme.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.660 ^a	0.436	0.434	0.6472

a. Predictors: (Constant), Data collection.

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	90.382	1	90.382	215.779	0.000 ^b
Residual	116.863	279	0.419		
Total	207.245	280			

a. Dependent Variable: Performance

c Predictors: (Constant), Data collection

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.137	0.039		-3.538	0
Data collection	0.479	0.033	0.66	14.689	0

Note: Model: (β= -0.137, t=14.689, p=0.000<0.05).

The results in Table 4 show that R=0.660 and R-squared = 0.436. The “R” was used to determine degree and nature of correlation between Stakeholder involvement in data collection for monitoring and evaluation and performance of literacy and numeracy educational programme. This shows that Stakeholder involvement in data collection for Monitoring and Evaluation strongly influenced performance of literacy and numeracy educational programme by 0.660. On the other hand the R² showed that data collection explained 43.6% variations in the performance of literacy and numeracy educational programme. Hence, there could be other factors not featured under this model that account for the rest of 56.4% and they are not under this study.

The results in Table 4. Indicate that stakeholder involvement Stakeholder involvement in data collection has statistically significant influence on performance of literacy and numeracy educational programme (β= -0.137, t=14.689, p=0.000<0.05).

The overall F-statistic is 215.779 with a p-value of 0.000<0.05 which implies that there was a statistically significant relationship between stakeholder involvement in data collection and performance of literacy and numeracy educational programme. The critical value was 3.875. This value was less than the calculate F value which is 215.779 thus concluding that the model is fit. Thus the model was significant.

Using the statistical findings, the regression model can be substituted as follows:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

$$y = -0.137 + 0.479 X_1 + 0.033$$

Where:

y - Performance of literacy and numeracy educational programme.

X₁ - Stakeholder Involvement in Data Collection.

ε - Error term.

From The results in Table 4 show that R=0.660 and R-squared = 0.436. The “R” was used to determine degree and nature of correlation between Stakeholder involvement in data collection for monitoring and evaluation and performance of literacy and numeracy educational programme. This shows that Stakeholder involvement in data collection for Monitoring and Evaluation strongly influenced performance of literacy and numeracy educational programme by 0.660. On the other hand the R² showed that data collection explained 43.6% variations in the

performance of literacy and numeracy educational programme. Hence, there could be other factors not featured under this model that account for the rest of 56.4% and they are not under this study.

The results in [Table 4](#). Indicate that stakeholder involvement Stakeholder involvement in data collection has statistically significant influence on performance of literacy and numeracy educational programme ($\beta = -0.137$, $t = 14.689$, $p = 0.000 < 0.05$), a positive beta coefficient for data collection is 0.479 indicating a direct relationship exists in this model. Probability of t-statistic is 14.689 for β coefficient has less value comparable to significance level which is 0.05. The findings led to the rejection of the null hypothesis and hence concluded that data collection has significant influence on performance of literacy and numeracy educational programme.

The findings of this objective were linked to the previous empirical investigations that had earlier been reviewed. The model was deemed significant and relationship between the two variables was correlated. Data collection influenced performance of literacy and numeracy educational programme. So it is in this connection that the current study show that stakeholder involvement in data collection in a programme like TUSOME and PRIMR had significant influence on performance of literacy and numeracy learning skills. The study agree with the findings of [Tine et al. \(2017\)](#) on good feedback of learners results. Data collected about the learners' progress by teachers and administrators in the school helps in future use as it was found in the current study whereby many respondents agreed data collection is an important measure of giving feedback.

Data collected for education purposes in schools assessment are used by policy makers, administrators and teachers to provide the parents with the results of their children and also guide the implementing organization on the best action to take when doing corrective measures ([Moller, 2015](#)). The current study differed with this argument since this is not the only way of getting data but agreed with [Piper and Spratt \(2017\)](#) who developed a Targerine for collecting data and giving analyzed data on the sport. The study found it crucial on this type of garget collecting data since it was only the curriculum support officers and the coaches who had the tool leaving out the key implemter who is the teacher out. There is a weakness on how data is collected for this to be curbed the study established that there is need to get more ways of collecting data from teachers, learners and all the stakeholders involved in the programme.

A study by [Matonda et al. \(2013\)](#) determined that significant relationship between data collection and performance of literacy and numeracy educational programme. The study results, therefore, supports the previous studies that data collection has influences on performance of literacy and numeracy educational program. In relation to the foregoing comparable studies, the current study has adduced empirical evidence in support of their earlier findings, even though no similar study had been done in Nairobi County, Kenya and specifically on literacy and numeracy educational programme.

The study found that the participation of stakeholders in participatory monitoring and evaluation had an influence on performance of literacy and numeracy educational programme. The findings of the analysis further demonstrated the presence of a strong positive linear correlation between stakeholder involvement in data collection and performance of literacy and numeracy programme. The implication of these results clearly indicates that by engaging the stakeholders in data collection process through indicators such as selection of M&E data instruments, M& E data collection and collation of information, sources of M&E information stakeholders and finally schedule of M&E activities which highly enhances performance of literacy and numeracy educational programme. It is evident that from the statements on quantitative data, the means of the line items were below the composite mean of stakeholder involvement in data collection variable. This implies that there is need to engage all stakeholders at all stages of implementation of the programme in Monitoring and Evaluation whereby they should fully be involved in collecting data coding, analyzing and interpreting it. To sum up, stakeholder involvement in

data collection for Monitoring and Evaluation remains very crucial if at all educational programme have to attain the set objectives. In relation to the foregoing comparable studies, the current study has adduced empirical evidence in support of their earlier findings, despite no similar studies have been conducted in Nairobi County, Kenya. The study found out that other studies investigated parental involvement in schools instead of literacy and numeracy educational programme.

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