
ADEQUACY OF TEACHING AND LEARNING RESOURCES ON ENROLMENT OF EARLY CHILDHOOD EDUCATION LEARNERS IN SHINYALU SUB-COUNTY, KAKAMEGA COUNTY, KENYA

¹ Dismus M. Bulinda

¹ University of Nairobi

¹dismus.bulinda@uonbi.ac.ke

ABSTRACT

This study was set to establish how access to teaching and learning resources influenced the enrolment of early childhood education in Shinyalu Sub-County. According to Pestalozzi, formal education within a school is needed for children to integrate knowledge of home life, vocational education, and reading and writing. It has over time become evident that Pestalozzi contributed to the idea of children's development following a natural timetable, as well as the idea that the environment is an essential facet of the educational process. It was also guided by Bronfenbrenner's ecological system model that described pattern of interplay of different people and institutions to the life of a child over time. Early childhood is a critical phase of life in terms of a child's physical, intellectual, emotional, and social development. The study used Ex Post facto research design principles. The design was good for the study because it provided adequate information on the relationship among the variables, that is, teaching and learning resources, and enrolment of ECE programme. The target population was comprised of 449 respondents. The

researcher targeted 1 DQA&S Officer at Shinyalu Sub-County Education Office, 208 primary school head teachers and 240 ECDE teachers of the Shinyalu Sub-County, Kakamega County. In this study, the researcher used the test-retest method. The scores from both tests were utilized to compute (r) using the Pearson Product Moment Correlation Coefficient (r) formula to determine whether the two tests correlate. According to the findings of this study, most of the ECDE centers in Kakamega East Sub-County do not have adequate teaching and learning resources. The study concluded that inadequate teaching and learning resources affected enrolment of ECE in this particular region.

Keywords:

Early childhood education; Teaching and Learning Resources; Enrolment.

INTRODUCTION

The Early Childhood Development (ECD) is a very crucial stage in Child Growth and Development.

This fact has been emphasized by most founders of Early Childhood Development and Education (ECDE), especially Johann Froebel, Heinrich Pestalozzi and John Dewey among others (Murunga, 2015). The observations have been in consonant with Bronfenbrenner's ecological system model that described pattern of interplay of different people and institutions to the life of a child over time. Early childhood is a critical phase of life in terms of a child's physical, intellectual, emotional, and social development. Growth of mental and physical abilities progress at an astounding rate and a very high proportion of learning take place from birth to age six. It is a time when children need high quality personal care and learning experiences.

Heinrich Pestalozzi posited that education had enormous contributions to children lives. According to Pestalozzi, formal education within a school is needed for children to integrate knowledge of home life, vocational education, and reading and writing. Further, he asserted that the teacher's role is one that should focus on teaching children, not subjects, and education should follow the child's nature, and mothers are children's most important teachers. Today, it is evident that Pestalozzi contributed to the idea of children's development following a natural timetable, as well as the idea that the environment is an essential facet of the

educational process (Heikka & Waniganayake, 2011).

According to Government of Kenya, Kenya economic survey (2017), only 35% of children in Kakamega County were enrolled in Pre-primary schools. Basic education statistics booklet (2014), indicated that Kakamega County was one of the 22 counties that registered low enrolment at ECDE level. It further revealed that ECDE enrolment was averagely 66.7% in 2014 and this was an indicator that children who were in the ECDE schooling age did not enroll in the learning level hence not benefiting from the rich foundation received at ECDE level in Kakamega County. The Uwezo Kenya annual learning assessment report indicated that in 2010, pre-primary enrolment in Kakamega central Sub County was at 39%.

This state of ECD programme seems to have drawn notice in the county strategic plan by the declaration that Kakamega County intends "...to promote access, equity, quality and relevant training ... equip, refurbish, and upgrade infrastructure in early childhood centre, schools and county polytechnics..." (County Government of Kakamega: County Integrated Plan, 2018 – 2022: 129). This study was set to establish how access to teaching and learning resources influenced the enrolment of early childhood education in Shinyalu Sub-County, Kakamega County.

STATEMENT OF THE PROBLEM

The gross enrolment rate in primary education jumped from 86.8% in 2002 to 101.5% in 2004 after the introduction of the Free Primary Education (FPE) program. Though intended to boost primary education, FPE has had consequences in other areas of education, including early childhood development (ECD). Studies have been conducted to assess the effects of FPE on ECD Centres. Some reported on negative effects, while others note no major drawbacks. While the overall impact of the policy is yet to be determined, the UNESCO/OECD Early Childhood Policy Review Mission, which took place in September 2004, observed that the policy did have a negative impact on ECD Centres serving poor children.

In most disadvantaged regions, there has been a sharp decrease in ECD enrolments since the implementation of FPE. Declining enrolments appeared to be so acute and widespread that there is a serious concern about the collapse of ECD services. Despite the government and other relevant education stakeholders introducing many measures, such as quality, equity, and access, to this sub-sector, it continues to face a myriad of challenges that include inadequate ECDE centres, inadequate teaching and learning materials, lack of enough trained teachers, lack of clear entry age guidelines, and lack of a clear policy on transition from pre-primary

to primary school. According to Government of Kenya, Kenya economic survey (2017), only 35% of children in Kakamega County were enrolled in Pre-primary schools. Basic education statistics indicated that Kakamega County was one of the 22 counties that registered low enrolment at ECDE level. This study was set to establish how access to teaching and learning resources influenced the enrolment of early childhood education in Shinyalu Sub-County, Kakamega County.

Objective of the Study

This study sought to establish how access to teaching and learning resources influences the enrolment of early childhood education in Shinyalu Sub-County.

METHODOLOGY

This study used Ex Post facto research design. The design is good for the study because it provides adequate information on the relationship among the variables that is; teaching and learning resources, and enrolment of ECE. The target population was comprised of 449 respondents. The researcher targeted 1 DQA&S Officer at Shinyalu Sub-County Education Office, 208 primary school head teachers and 240 ECDE teachers of the Shinyalu Sub-County (Shinyalu Sub-County Education Office, 2017). Table 1 below summarizes the respective sample sizes of each of the targeted population.

Table 1: Sample Size

Respondents	Target	Sample size	Percentage (%)
DQA&SO	1	1	100%
Primary Head teachers/	208	62	30%
ECDE Teachers	240	72	30%
Total	449	135	30%

DQASO was purposively selected, as this is a key informant position. School head teachers were selected by random sampling method. ECDE teachers were randomly selected. Questionnaires were used to obtain data from head teachers of primary schools that run ECE centres. Further, this particular data collection tool was used to collect data from ECE teachers in Shinyalu Sub-county, Kakamega County, Kenya. The DQASO was interviewed on the various aspects related to teaching and learning resources and enrolment of learners in ECE.

A pilot study was carried out with a view to establishing the validity and reliability assessments of the questionnaire. The pilot study entailed administration of questionnaire to 5 respondents in Shinyalu Sub-County. The purpose of piloting was to determine the correctness and suitability of tools of data collection. The outcome of the pilot study was not part of data analysis.

The instrument used was appraised by experts in the early childhood education area of study. The researcher pre-tested the instrument for current validity in order to assess the clarity of the instrument items.

The researcher ensured that all the objectives of the study were thoroughly addressed and that the respondents were to give the intended answers to the research question. Based on the analysis of the pre-test, the researcher was able to make corrections, adjustments, and additions to the research questions.

RELIABILITY OF THE INSTRUMENTS

In this study, the researcher used the test-retest method. The scores from both tests were utilized to compute (r) using the Pearson Product Moment Correlation Coefficient (r) formula to determine whether the two tests correlate. Pearson Product Moment Correlation Co-efficient formula is as under:

The scores of each of the two sets were then correlated using the Pearson Product Moment Correlation Co-efficient. The Pearson Product Moment Correlation Coefficient is an index of relationship between two variables. Since the ' r ' value obtained represents one-half of the test, a correlation measure, the Spearman – Brown prophecy was used to establish reliability of the full instrument. The reliability was 0.857 which was considered adequate.

Quantitative data was analyzed using descriptive statistics, such as frequencies and percentages. The researcher presented the data in tables, bar graphs, and pie charts. The qualitative data from open-ended items was

put into various categories according to the themes, information was then reported through narratives, and where necessary, appropriate tables and figures.

RESULTS

This section describes the results of data collection in the study. The sample size of the study comprised of 135 respondents. Out of 135 only 107 agreed to participate in the study making a return rate of 79.3%, which was considered good. Table 2 below collates the findings on the response rate. Out of the respondents, 59 % were male. The higher number of male head teachers in primary schools could be a result of the region under study selecting the leadership preferentially based on gender. The DQSASO in Shinyalu Sub-County was a male. The DQSASO ensures that schools have quality in terms of teaching, and they oversee proper utilization of the available resources through effective capacity building to achieve the intended quality education.

During the study, it was important to collect data on the age of the respondents since the researcher intended to evaluate their teaching capabilities in terms of handling technical teaching related to ECE issues. The findings are contained in the Table 2.

Table 2: Age of the respondents

Age	Head Teachers		ECDE Teachers	
	f	%	f	%
31 – 39	4	10.3	17	25
40 – 48	8	20.5	10	14.7
– 60	27	69.2	-	-
and above	-	-	43	60.3
Total	39	100.0	68	100.0

Implementation of various activities in ECE, primary, and secondary schools requires head teachers with the requisite skills to stimulate an effective culture of promoting curriculum implementation that addresses the fundamental demands and objectives of stakeholders, parents, and teachers. Thus, it was important to establish the skills and knowledge of the respondents of the current study to comprehend their capacity to undertake their mandates. The Table 3 indicates the highest professional qualification of the respondents.

Table 3: Professional qualification

Qualification	Head Teachers		ECDE Teachers	
	f	%	f	%
	Master's degree	6	15.4	-
B.Ed. degree	5	12.8	9	13.2
Diploma	28	71.8	6	8.8
ECED	-	-	53	77.9
Total	39	100.0	68	100.0

The findings indicate that all the ECE teachers had the minimum required qualifications to teach in ECE centres, with most (three quarters) having a certificate in a certificate in Early Childhood, and they, therefore, could be relied upon to provide crucial information for this study.

The researcher sought to find out the number of years respondents had been teachers to determine their level of roles experience with instructional resources. Considerable teaching experience by ECE teachers is an indicator that children will learn better since the former understands the expectations and bottlenecks that may face learners in this initial stage of school. However, most preschools in Kenya are facing a myriad of challenges occasioned by factors such as lack of a clear financing policy, poor remuneration of teachers, and poor infrastructure in many centres across the country. Most trained ECE teachers opt to look for other better paying jobs, thereby

jeopardizing learning, and subsequent enrolment. Table 4 summarizes the results.

Table 4: Teaching Experience

Experience in years	Head Teachers		ECDE Teachers	
	f	%	f	%
0 – 5	-	-	45	66.2
6 – 10	4	10.2	13	19.1
11 – 15	-	-	7	10.3
16 – 20	19	48.7	3	4.4
21 and above	16	41	-	-
Total	39	100.0	68	100.0

The DQASO indicated that he had previously taught in many schools for a period of 20 years prior to his present position, which he had held for 3 years. This has implications for teachers experience in the use of resources in teaching. All head teachers have headed their current location for a maximum of ten years. This could be attributed to desire of stakeholders to ensure that the head teachers have enough time to facilitate stability of school programs. The findings indicate that head teachers have sufficient information regarding the management of the ECE centres.

The first objective of the study was to investigate how teaching and learning resources influenced enrolment of learners in ECE. The findings are collated below. ECE teachers were asked to indicate all the available resources in their centres. The results are indicated in Table 5.

Table 5: Available resources

Available Resources	Frequency	Percent
N=68		
Properly ventilated classrooms	48	70.6
Furniture suitable for children	23	33.8
Kitchen	21	30.9
Safe clean water	11	16.2
Playground	59	86.8
Toilets	43	63.2
Play material	37	54.4

*Multi Response

Besides, head teachers were asked to state the overall adequacy of teaching and learning resources in the ECE centres that they supervise. To achieve this aim, respondents were to indicate the extent to which they agreed or disagreed with the adequacy of the available teaching and learning resources. The findings of this subsection are indicated in figure 1.

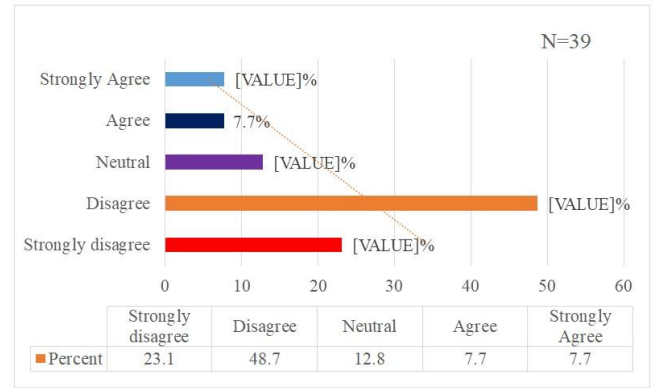


Figure 1: Adequacy of Teaching and Learning Resources

Further, ECE teachers were required to indicate their level of satisfaction regarding the availability of teaching and learning resources in their centres. The table below presents the satisfaction of the teachers on the available resources.

Table 6: Level of Satisfaction on the Available teaching/Learning Resources

	Very Satisfied	Satisfied	Undecided	Dissatisfied	Very Dissatisfied
Text books	2.9%	5.9%	36.8%	22.1%	32.4%
Exercise books	26.5%	8.8%	16.2%	41.2%	7.4%
Chalkboard	20.6%	11.8%	27.9%	17.6%	22.1%
Globes, maps, and posters	-	30.9%	19.1%	29.4%	20.6%
Hand book	-	20.6%	10.3%	29.4%	39.7%
Supplementary books	-	-	17.6%	42.6%	39.7%
Syllabus	4.4%	61.8%	5.9%	-	27.9%

The researcher further sought to establish the main suppliers of teaching and learning resources in ECE centers within Shinyalu Sub-County. Figure 2 indicates the results.

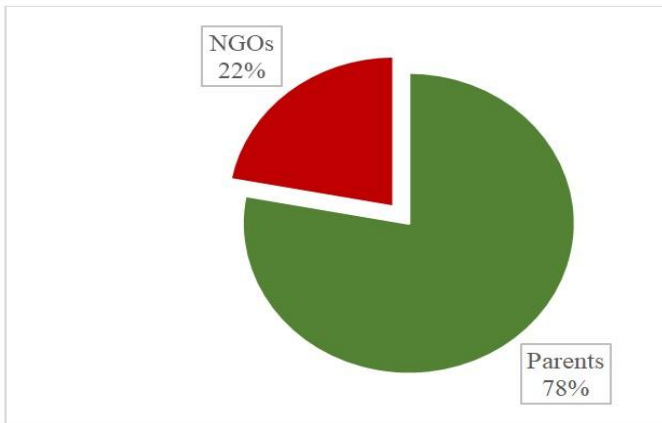


Figure 2: Providers of Teaching and Learning Resources

On top of the above, the researcher posed a question to the respondents as to whether adequacy of teaching and learning materials influenced enrolment of ECE learners. The findings from the analysis of the collected data are presented in the figure below.

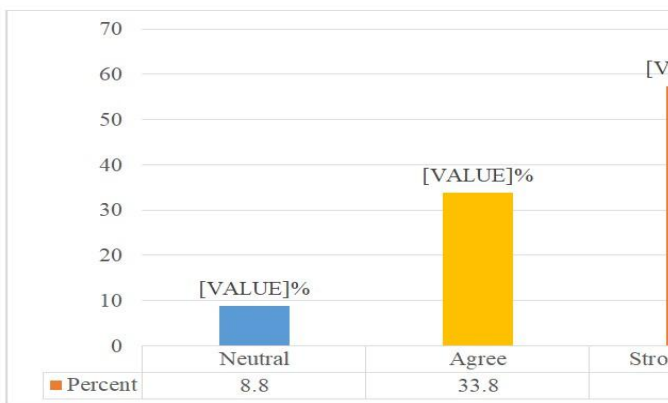


Figure 3: Teaching and learning resources and enrolment of ECE

DISCUSSION OF FINDINGS

The study revealed that most of the ECE centres had adequate properly ventilated classrooms (70.6%), playground (86.8%), and play material (54.4%). Further, the study established that most of the ECE centres did not have adequate teaching and learning resources because the head teachers who supervise such pre-schools disagreed (71.8%) with the statement as to whether there is adequate resources (figure 1). The findings discussed mirror a study conducted by Chepkonga (2017) in West Pokot County, which found out that majority of public ECDE centres did not have enough classes, desks, water, kitchen stores, among other resources.

The lack of adequate learning facilities had a negative influence on provision of quality education. Consequently, lack of adequate teaching and learning resources in Shinyalu Sub-County may affect provision of quality early childhood education.

As illustrated in Table 6, majority (36.8%) of the ECE teachers were neither satisfied nor dissatisfied with the available textbooks in their centres, whereas 22.1% and 32.4% were dissatisfied and very dissatisfied respectfully with the available text books.

Moreover, the analysis of the collected data showed that 41.2% of the ECE teachers were dissatisfied with the available exercise books, while 26.5% of them were very satisfied with this particular resource. Majority (27.9%) of the ECE teachers in Shinyalu Sub-County were of a neutral view on the chalkboards available in their centres. A third (30.9%) of the respondents indicated that they were satisfied with the available globes, maps, and posters, whereas 29.4% were dissatisfied with this particular teaching resource. Overall, 69.1% (29.4%+39.7) of the respondents were dissatisfied with the available handbooks; while on the other hand, 82.3% (42.6%+39.7%) were dissatisfied with the available number of supplementary books in their centres. Lastly, slightly above two-thirds (61.8%) of the ECE teachers were satisfied with the available syllabus that they used to teach learners in preschools. These findings are comparable with a study carried out by Onyango (2014) in Rachuonyo South Sub County, which established that majority of the ECE centres lacked the basic teaching and learning resources, and thereafter concluded that teaching and learning materials should be used in teaching the preschool children. Conclusively, teachers should ensure the acquisition, appropriate storage, and use of teaching/learning materials to enable performance of the learners in early childhood.

Moreover, the researcher found out that parents (78%) were the main suppliers of teaching and learning materials in the region under study, whereas NGOs (22%) were partly involved. This finding agrees with an ECE report developed by Nganga (2009), which stated that government funding for early childhood education in Kenya is minimal. The government plays a critical role in the development of curriculum materials and remuneration for program coordinators at the National and Sub-County levels only. In addition, the report averred that early childhood education is funded primarily through donations from local and international organizations, including the World Bank, with parents shouldering the biggest burden.

More than a half (57.4%) of the respondents strongly agreed that adequate teaching and learning resources influenced enrolment of learners in ECE centres in Shinyalu Sub-County, with 33.8% of them agreeing that resources influenced enrolment of pupils in preschools. On the other hand, less than a tenth (8.8%) were neutral on the role played by resources on the enrolment of learners. The findings of the present study are consistent with a study carried out in Nigeria by Oluwafemi Nma, Osita, and Olugbenga (2014), which found out that provision of necessary teaching and learning resources by local governments (county government for

the Kenyan Context) enhanced effective implementation of ECE programs.

During the interview with the Sub-County Quality Assurance and Standards Officer (DQA&SO), it was revealed that ECE enrolment continues to plummet in poorer areas where parents could not mobilize funds for the provision of teaching and learning resources. Moreover, the DQA&SO stated that lack of ECE teachers and other instructional materials frustrated parents who opted to withdraw their children from public ECDE centres, and send them to private centres, a situation that culminated to the closure of some of them.

CONCLUSION

According to the findings of this study, most of the ECDE centers in Shinyalu North Sub-County do not have adequate teaching and learning resources. The study concluded that inadequate teaching and learning resources affected enrolment of ECE in this particular region. To bolster and improve enrolment of ECE, the Ministry of Education and the County Governments should develop a framework that addresses the funding of ECDE in Kenya, particularly in the procurement of teaching and learning materials.

REFERENCES

1. Ailwood, J. (2007). Mothers, teachers, maternalism and early childhood education and care: Some historical connections. *Contemporary Issues in Early Childhood*, 8(2), 157-165.
<http://doi.org/10.2304/ciec.2007.8.2.157>
2. Best, J.W., & Kahn, G.K (2006). *Research in education* (9th ed.). Boston: Ally & Bacon Publishers.
3. Bronfenbrenner, U. & Morris, P. A. (1998). The ecology of developmental processes. *Handbook of child psychology*, 1(5), 993-1028.
4. Chepkonga, M. C (June, 2017). Influence of learning facilities on provision of quality education in early childhood development centres in Kenya. *International Journal of Education and Research*, 5(6), 15-26.
5. County Government of Kakamega (2018) County Integrated Development Plan, 2018 – 2022: p. 129.
6. Garcia, M. H., Pence, A., & Evans, J. (Eds.). (2008). *Africa's future, Africa's challenge: early childhood care and development in Sub-Saharan Africa*. Washington, DC: World Bank Publications.
7. Heikka, J., & Waniganayake, M. (2011). *Pedagogical leadership from*

- a distributed perspective within the context of early childhood education. *International journal of leadership in education*, 14(4), 499-512.
8. Jaluo, M. W. (2013). Policies and practices that promote access, equity and capacity building in early childhood development centres in Kenya: the case of Likuyani District. *Journal of Emerging Trends in Educational Research and Policy Studies*, 4(1), 88.
 9. Kamerman, S.B. (2007). EFA Global Monitoring Report 2007: Strong foundations: Early childhood care and education. Retrieved from <http://unesdoc.unesco.org/images/0014/001477/147794e.pdf>
 10. Kerlinger, F. N. (2000). *Foundation of behaviour research*. New Delhi, India: Holt Reinhert and Winston.
 11. Kipkorir, L.I., & Njenga, A.W. (1993). A Case Study of early Childhood Care and Education in Kenya. Paper prepared for the EFA Forum 1993, New Delhi, 9-10 September 1993.
 12. Kothari, C.R. (2004). *Research Methodology: Methods and Techniques* (2nd Ed.). New Delhi, India: New Age International Publishers.
 13. Lauglo, J. (2004). Basic education in areas targeted for EFA: ASAL districts and urban informal settlements in Kenya AFTH1. Washington, DC: The World Bank Press.
 14. Lloyd, E. (2015). Early childhood education and care policy in England under the Coalition
 15. Government. London Review of Education, 13(2), 144-156.
 16. Lucas, A. M., & Mbiti, I. M. (2012). Access, sorting, and achievement: the short-run effects of free primary education in Kenya. *American Economic Journal: Applied Economics*, 4(4), 226-53.
 17. Mathooko, M. (2009). Actualizing Free Primary Education in Kenya for Sustainable Development. *Journal of Pan African Studies*, 2(9), 151-159.
 18. Murunga, J.W (2015). Devolving early childhood development education in Kenya: Policy challenges and opportunities. *International Journal of Education and Research*, 3(2), 611-620.
 19. Nutbrown, C., & Clough, P. (2014). *Early childhood education: History, philosophy and experience*. London, UK: Sage.
 20. Nyong'o, A. (2003, January 29). State of the Nation's Economy. Retrieved from <https://www.ieakenya.or.ke/download>

- <ds.php?page=Lecture---2003---Prof.-Anyang-Nyongo.pdf>
21. Oketch, M., & Somerset, A. (2010). Free Primary education and after in Kenya: Enrollment impact, quality effects, and the transition to secondary school. Consortium for Research on Educational Access, Transitions and Equity, 37, 1-42.
22. Oluwafemi, O. L., Nma, A., Osita, O., & Olugbenga, O. (2014). Implementation of Early Childhood Education: A Case Study in Nigeria. Universal Journal of Educational Research, 2(2), 119-125.
23. Pence, A. R (2004). ECD Policy Development and Implementation in Africa. International Journal of Educational Policy, Research, and Practice: Deconceptualizing Childhood Studies, 5(3), 13-29.
24. Republic of Kenya. (1965). The sessional paper no. 10 of 1965: African socialism and its application to planning in Kenya.
25. Sitati, E. M., & Kennedy, B. (January, 2017). Provision of teaching/learning resources in the early childhood education centres in Kakamega County, Kenya. Journal of Humanities and Social Science (IOSR-JHSS), 22(1), 44-52.
26. The Council of Governors. (2018). Meru County launches ECDE milk project. Retrieved from <http://cog.go.ke/media-multimedia/news-from-counties/500-meru-county-launches-ecde-milk-project>
27. UNESCO. (2005a). Policy review report: Early child hood care and education in Kenya. Retrieved from <http://unesdoc.unesco.org/images/0013/001390/139026e.pdf>
28. UNESCO. (2006). Impact of free primary education on early childhood development in Kenya: Policy brief on early childhood. Retrieved from <http://unesdoc.unesco.org/images/0014/001433/143320E.pdf>