



INSTRUCTIONAL RESOURCES AVAILABILITY AND USE IN EARLY CHILDHOOD EDUCATION AND DEVELOPMENT CENTRES IN BUNGOMA COUNTY, KENYA

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Abstract:

This paper reports finding of a study that sought to analyze the availability and use of instructional resources in Early Childhood and Development Education centers in Bungoma County, Kenya. Specifically, the teacher's perception of the availability and use of instructional materials and its influence on learning was investigated. The research was based on Piaget's theory of cognitive development 1964. The study adopted the descriptive survey design and involved use of purposive, stratified and simple random sampling techniques to select a sample size of 81 respondents from the target population of educational officers, head teachers and teachers of the selected ECDE centers. Data was collected using questionnaire, observation and interview schedules. Data was analyzed using descriptive statistics including frequencies and percentages. The findings of the study showed that there are challenges related to the availability and use of instructional materials. The study is envisaged to provide useful information for the education policy makers to ensure availability of instructional resources for the teachers.

Keywords: instruction, resource, early childhood, education

1. Introduction

The main purpose of ECDE learning in Kenya is mainly to help the child to acquire language and communication skills, manipulative and numeric skills in concept handling, reading and writing skills. The child should also acquire positive attitudes

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towards education; grow physiologically, morally, spiritually and emotionally. The child is expected to learn to respond positively to the natural calls and acquire interpersonal skills (KIE, 2006). Early childhood education in Kenya serves the critical purpose of preparing young children for primary education. Early childhood professionals recognize that a gradual shift in emphasis occurs over the first eight years of a child's life, along a continuum from play to more structured learning in formal settings. Early childhood professionals apply strategies to support sustained and shared interactions with children through play to more focused learning. Research indicates that the early years, particularly 0-8 years are critical for optimal learning and development and that Early Childhood Development and Education (ECDE) curriculum planning and development is a collective responsibility which involves many participants, teachers being inclusive (Shiundu & Omulando, 1992).

Effective early childhood professionals establish a learning culture where children have the opportunity to engage in a variety of activities which explore the same concepts in a variety of meaningful and engaging ways (Dockett and Perry, 2009). Research indicates that while early childhood professionals absolutely need to use children's interest and previous knowledge as a foundation for their pedagogical focus, considerable time needs to be devoted to broadening and deepening children's knowledge, skills, concepts and experience to take them beyond what they already know and can do (Jones and Reynolds, 1992; Tregenza, 2006). Learning is an active process that must involve children's engagement and they need practical, hands on learning experiences based on their interests and individual developmental level. Like adults, children learn from their mistakes as well as their successes. When early childhood professionals create a culture for this to happen, children's thinking and learning is enhanced (Walsh et al., 2006).

There is now a compelling body of evidence demonstrating that what happens in the early years of a child's life has a lasting effect on learning and development (e.g. Campbell, Ramey, Pungello, Sparling and Miller-Johnson, 2002). Contemporary evidence shows that the best outcomes for children occur when there is an integrated approach to teaching and learning (Sylva, Siraj-Blachford and Taggart, 2003; Hamre, Pianta, Mashburn and Downer, 2009; Sylva, et al., 2007). Integrated teaching and learning approaches are most effective when they are interactive, physical, and concrete and involve people, materials and the environment. Ensuring the benefits of learning experiences in early childhood education programs, however, can prove challenging given the complex and interrelated factors involved in providing high quality early childhood learning experiences (Sylva, Siraj-Blachford and Taggart, 2003; Dahlberg, Moss and Pence, 1999; Sylva, et al., 2007; Hamre and Pianta, 2005). The benefits extend not only to children's cognitive development, but also to social and emotional development from a very young age (Davis, 2004). These approaches are best supported by early childhood professionals who understand children's early capacity for learning, the role of play in learning, and the role of educators in planning for interactions that extend children's learning.

A teacher is an important factor in teaching and learning of language in Early Childhood Development and Education Centre and a well-prepared teacher could be very effective in the selection, development and use of materials (Ogott, 2011). A study carried out in Gem District by Ogott, Indoshi and Okwara (2010) on teacher factors in language curriculum material selection, development and use in Early Childhood Education program which was meant to ascertain the extent of influence of teacher factor in selection, development and use of materials in a language classroom. This study was concerned with the availability and use of instructional materials in ECDE curriculum. A study conducted by Obuchere (2011) in Emuhaya District, Kenya on factors influencing implementation of ECDE curriculum pointed out that the teachers play a key role in the preparation of learning environment and play materials in ECDE centres to ensure school/home or parent/teacher relationship is achieved.

The use of instructional materials provides the teacher with interesting and compelling platforms for conveying information since they motivate learners to learn more. Furthermore, the teacher is assisted in overcoming physical difficulties that could have hindered his effective presentation of a given topic. Early Childhood Education and Development (ECDE) policies stress the use of plenty of relevant instructional resources to develop the totality of the child (Gok, 2006). These views have been corroborated by international investigators including Bolick, Berson, Coutts and Heinecke (2003), Killen (2006), Kadzera (2006), Abdo and semela (2010), Jotia and Matlale (2011) and Dahar and Faize (2011). Bolick, Berson, Coutts and Heinecke (2003) observed that while some educators are fascinated by the potential of instructional materials in enhancing teaching and learning, other teachers lagged behind in using instructional materials to teach. Notwithstanding the associated benefits for society, the government of Kenya is involved minimally. Indeed, parents are responsible for planning, developing and managing different early childhood programs. It is regrettable however that the situation in most centers in Bungoma central is worrying in terms of the availability, adequacy, selection and use of instructional resources for quality education. Learning in various centers has remained poor and pupils have had difficulties in the mastering of reading, communication, manipulative, numeric and interpersonal skills which can well be mastered through the effective use of well selected variety of learning resources. It was against this backdrop that the study reported in this paper sought to ascertain the teacher's perceptions on the availability and use of instructional materials and its influence on the teacher preparedness in ECDE centres in Bungoma County, Kenya.

2. Research Question

What are the teacher's perceptions on the availability and use of instructional materials and its influence on learning in ECDE?

3. Methodology

The study adopted a descriptive survey research design. This study was carried out in ECDE centres in Bungoma Central district, in Bungoma County. The study targeted all the head teachers and teachers and from Sirisia Sub-County of Bungoma County. A sample of 75 respondents including 15 head teachers and 60 teachers from 15 ECDE centers was selected using simple and proportionate stratified random sampling techniques. Data was collected using questionnaires, interview schedule and observation checklist. The instruments were validated using expert help from specialists and their reliability determined from the pilot test data. The test-re-test method was used, and the results analyzed using Pearson Product Moment Correlation Coefficient. The results obtained for the classroom observation schedule indicated a reliability coefficient of 0.69, while that of the teachers' questionnaire was 0.74. Data collected was analyzed using descriptive statistics including frequencies and percentages.

4. Results

4.1 Availability and Use of Instructional Materials in ECDE

The study sought to establish the influence of availability and use of instructional materials on learning in ECDE centres. The findings are as indicated in Table 1:

Table 1: Teachers Opinions on the Availability of Instructional Resources in ECDE centres

Resources	Availability		Adequacy					
	Freq.	%	Very Sufficient		Sufficient		Insufficient	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Chalkboards	60	100%	20	33%	36	60%	4	7%
Charts	60	100%	7	11%	20	33%	33	56%
Pictures	60	100%	8	13%	26	44%	26	44%
Posters	60	100%	5	9%	24	40%	31	51%
Photographs	60	100%	10	16%	11	18%	40	66%
Textbooks	60	100%	13	21%	17	29%	30	50%
Models	52	87%	4	7%	13	25%	35	68%
Toys	36	60%	4	11%	7	19%	25	69%
Outdoor play resources	52	87%	4	7%	7	14%	41	79%

Findings in Table 1 show that 60 (100%) of the sampled teachers noted availability of instructional materials. The findings show that other materials including models, toys and outdoor play resources are available in some centers as indicated by 52 (87%), 36 (60%) and 52 (87%) of the teachers, respectively. As shown in the findings 60 (100%) of the sampled teachers who noted availability of the chalkboard, 20 (33%) noted that they are very sufficient, 36 (60%) noted that they are sufficient as 4 (7%) indicated that they are insufficient. As indicated in the findings, sufficiency of the chalkboard was noted by most of the respondents and this could be attributed to its flexibility in use and it being cheap and thus affordable in most of the ECDE centres. Charts were also available though

only 7 (11%) of the teachers noted that they are very sufficient, fifteen noted that charts are sufficient though a majority 33 (56%) of the teachers indicated that charts are insufficient in most of the ECDE centres. Pictures are also available in most ECDE centres and when asked whether they are adequate, only 7 (11%) of the teachers noted that they were sufficient, 20 (44%) indicated that they are sufficient as a similar number 26 (44%) noted insufficiency of these instructional resources. Posters were noted to be very sufficient by five (9%) of the teachers, 24 (40%) noted that they are sufficient as a majority 31 (51%) noted that they are insufficient. The results show that in most of the ECDE centres though the posters are available, they are inadequate, and this can be attributed to the unavailability of funds to purchase these resources making it unaffordable to most centres.

Other instructional materials like photographs were noted to be available through when asked whether they are adequate, a majority 40 (66%) of the teachers indicated that they are insufficient, 10 (16%) noted that they are very sufficient while 8(13%) noted that they are sufficient. Most teachers underrate the role of pictures in instruction and they also find it hard to acquire them because of the expenses while most centres are under-funded or not funded at all. Text books were noted as available in all the ECDE centres. There was need to establish whether the instructional resources are utilized in the teaching and learning process. The results are as indicated in Table 2.

Table 2: Teachers Opinions Utilization of Instructional Resources in ECDE centres

Resources	Availability		Utilized		Rarely Utilized		Never Utilized	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Charts	60	100%	60	100%	0	0	0	0
Pictures	60	100%	52	87%	8	13%	0	0
Posters	60	100%	32	53%	16	27%	12	20%
Photographs	60	100%	36	60%	16	27%	8	13%
Textbooks	60	100%	56	93%	4	7%	0	0
Models	39	87%	36	80%	6	13%	3	7%
Toys	27	60%	33	73%	9	20%	3	7%
Outdoor play resources	39	87%	36	80%	6	13%	3	7%

Results in Table 2 show that 60 (100%) of the sampled teachers used charts. 52 (87%) of the teachers noted that they utilize pictures in instruction, as compared to only 8 (13%) who indicated that they rarely utilized the pictures during instruction. The use of posters in instruction was noted by 32 (53%), 16 (27%) rarely utilized posters in instruction as 12 (20%) of the teachers never used posters in teaching. Utilization of textbooks for instruction was noted by 56 (93%) teachers as 4 (7%) rarely used textbooks in instruction. The underutilization of textbooks in some ECDE centers could be attributed to scarcity or inadequacy of these resources in some centres. 42(80%) of the teachers used models in instruction, 8 (13%) rarely utilized models as 4 (7%) indicated that they never utilized these resources for instruction. 44 (73%) of the teachers utilized toys for instruction, 12 (20%) rarely utilized these tools, as 4 (7%) of the sampled teachers never used toys in instruction in ECDE centres. 42 (80%) of the sampled teachers utilized outdoor play

resources, 8 (13%) rarely utilized outdoor play resources as 4 (7%) never utilized outdoor play resources at all.

The head teachers' perceptions on the availability of instructional resources in ECDE were sought and the results are as indicated in Table 3.

Table 3: Head Teachers Opinions on Availability of Instructional Resources in ECDE

Resources	Availability		Very Sufficient		Sufficient		Insufficient	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Charts	15	100%	0	0	15	100%	0	0
Pictures	15	100%	0	0	6	40%	9	60%
Posters	15	100%	0	0	3	20%	12	80%
Photographs	15	100%	9	60%	0	0	6	40%
Textbooks	15	100%	3	20%	0	0	12	80%
Models	15	100%	3	20%	3	20%	9	60%
Toys	15	100%	6	40%	6	40%	3	20%
Outdoor play resources	15	100%	0	0	3	20%	12	80%
Realia	15	100%	3	20%	12	80%	0	0

Results in Table 3 show that 15 (100%) head teachers confirmed availability of charts, pictures, posters, photographs, textbooks, models, toys, realia and outdoor play resources. Moreso 15 (100%) of the sampled head teachers noted that the charts were sufficient. This is because charts are a good instructional medium at this level of learning as they are effectively used for illustrations. They are cheap to acquire at the market and can be easily prepared by the teachers. 6 (40%) and 3 (20%) of the sampled head teachers noted that pictures and posters were sufficient. However, 9 (60%) and 12 (80%) of the head teachers indicated that they are insufficient. The insufficiency of pictures and posters is attributed to related high cost of producing and duplicating these resources which is not affordable for most ECDE centres. 3 (20%) of the sampled head teachers noted that the available textbooks in the ECDE centres were sufficient. More so, 12 (80%) noted that textbooks are insufficient in most ECDE centres. This is attributed to the limited support given to early childhood education not only by the parents and other stakeholders in education sector but also by the government which has neglected this level of education not only through hiring teachers but also funding fully the activities in ECDE. Sufficiency of models and toys was noted respectively by 6 (40%) and 12 (80%) of the sampled head teachers as a 9 (60%) and 3 (20%) noted the insufficiency of models and toys respectively. This finding shows that despite the relevance of models in making instruction real and interesting to children, such instructional resources are insufficient in most ECDE centres.

Outdoor play resources were noted to be available in all the ECDE centres, though as indicated in the findings, sufficiency was noted by 3 (20%) of the head teachers as 12 (80%) of the head teachers noted that they are insufficient. This is attributed to non-realization by most teachers at this level of the relevance of such resources not only in children's learning but also in growth and development of the child. There is thus need to lay emphasis on the making availability of these instructional resources for use by

ECDE teachers because as indicated in the findings, most of the instructional resources though available, are not adequate in the ECDE centres. This is a contributory factor to limited or no use of such resources which are important in facilitating learning and development of the children.

Table 4: Adequacy of Instructional Resources in ECDE centres

Resources	Adequate		Inadequate		Not available	
	Freq.	%	Freq.	%	Freq.	%
Head teachers office	0		9	60%	6	40%
Staffroom	0		9	60%	6	40%
Library	0		9	60%	6	40%
Store	0		9	60%	6	40%
Instructional resources such as textbooks, charts, maps, toys and photographs	9	60%	6	40%	0	0
Chalkboard	9	60%	6	40%	0	0
Electronic media: television, radio and computer	0	0	0	0	0	0
Outdoor play resources, swings and balls	9	60%	0	0	6	40%
Appropriate furniture: desks, chairs and tables	3	20%	6	40%	6	40%
Syllabus	12	80%	3	20%	0	0
Models	9	60%	6	40%	0	0
Realia			15	100%	0	0
Spacious playground	15	100%	0	0	0	0

Results in Table 4 show that 9 (60%) of the centers which had offices were inadequate as 6 (40%) of the ECDE centres lacked offices. This shows that in most ECDE centres, the heads have no designated offices to operate from. In 6 (40%) of the ECDE centres observed, the staffroom, library and store were reported to be lacking. 9 (60%) of the ECDE centres noted that these resources are inadequate. The findings show that 9 (60%) of the study centres had adequate instructional resources such as textbooks, charts, maps, toys and photographs. 6 (40%) of the centres were noted to have inadequate resources. It was observed that electronic media such as television, radio and computer were not available in all the ECDE centres that participated in the study. This finding shows that such resources are not utilized for instruction by teachers due to unavailability and which can be attributed to the cost of such resources which is not affordable to most ECDE centres.

In 9 (60%) of the ECDE centres observed in the study, outdoor play resources, swings and balls were available and adequate as 6 (40%) of the centres reported unavailability of these resources. Despite the importance of such resources for learning through play in early childhood, such were lacking in some centres. In 3 (20%) of the ECDE centres appropriate furniture: desks, chairs and tables were noted to be adequate. 6 (40%) of the centres inadequacy and unavailability of these resources. In 12 (80%) of the ECDE centres the ECDE syllabus materials were available and adequate as 3 (20%) of the ECDE centres noted inadequacy of the syllabus.

Table 5: Head Teachers Opinions on the Utilization of Instructional Resources

Resources	Availability		Fully Utilized		Utilized		Rarely Utilized	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Available materials	15	100%	15	100%	0	0	0	0
Charts	15	100%	3	20%	12	80%	0	0
Pictures	15	100%	9	60%	0	0	6	40%
Posters	15	100%	0	0	9	60%	6	40%
Photographs	15	100%	0	0	12	80%	3	20%
Textbooks	15	100%	9	60%	3	20%	3	20%
Models	15	100%	9	60%	3	20%	3	20%
Toys	15	100%	9	60%	3	20%	3	20%
Outdoor play resources	15	100%	9	60%	3	20%	3	20%

Findings in Table 5 show that the available instructional materials were fully utilized in the ECDE centres. 3 (20%) and 9 (60%) of the sampled head teachers noted full utilization of charts and pictures, respectively. 12 (80%) of the head teachers utilized charts as 6 (40%) rarely utilized pictures in instruction. 9 (60%) and 12 (80%) of the head teachers utilized posters and photographs respectively. 9 (60%) and 3 (20%) respectively indicated utilization of text books, models and toys as 3 (20%) rare utilization of these resources in their ECDE centres. 9 (60%) and 3 (20%) of the head teachers noted utilization of outdoor play resources for instruction in ECDE. However, 3 (20%) of the head teachers indicated that they rarely utilized these resources for instruction.

4.2 Instructional Resources and Learning in ECDE

There was need for the study to establish the teacher's perception of the influence of instructional resources on learning in early childhood and development education. The findings are as indicated in Table 6.

Table 6: Influence of Instructional Resources on Learning in ECDE

Statement	Agreement		Undecided		Disagreement	
	Freq.	%	Freq.	%	Freq.	%
Use of instructional resources provides meaningful classroom learning experiences	60	100%	0	0	0	0
Provide opportunities for collaborative learning experiences	60	100%	0	0	0	0
Use of a variety of instructional resources motivates children to learn	56	93%	4	7%	0	0
Instructional resources enhance integration and stronger links between theory and practice	60	100%	0	0	0	0
Vary methodology that promotes learners' interest	56	93%	0	0	4	7%
Enhance individualized approaches to learning	40	67%	12	20%	8	13%
I find it easy to present lessons by using instructional resources	60	100%	0	0	0	0
Instructional resources contribute to learning in ECDE	60	100%	0	0	0	0
I find it easy to incorporate instructional resources in lesson presentation	56	93%	0	0	4	7%

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I find it easy to improvise instructional resources during lessons	56	93%	0	0	4	7%
I rate highly the adequacy of the instructional resources at the ECD centres	48	80%	0	0	12	20%
At times I teach without using resources	32	53%	0	0	28	47%

Findings in Table 6 show that 60 (100%) of the sampled head teachers noted that the use of instructional resources provides meaningful classroom learning experiences. This finding is indicative of the role of instructional resources in ensuring engagement of children activities which are meaningful for learning. 60 (100%) of the sampled head teachers noted that use of instructional resources provides opportunities for collaborative learning experiences. This is attributed to the experiences that allow learners to share the classrooms experiences and participate in discussions on what they encounter during instruction when instructional resources are used. This allows the children to learn from each other. 56 (93%) of the teachers who participated in the study agreed that the use of a variety of instructional resources motivates children to learn. This shows that when instructional resources are used in early childhood education, learners are motivated to learn which is because of the good learning environment created as media provides opportunities for learners to enjoy and learn on their own.

As shown in the findings, 60 (100%) of the sampled teachers noted that use instructional resources enhances integration and making of stronger links between theory and practice. This shows that the ECDE teachers acknowledge the need for the use instructional resources which provide opportunities for putting theory into practice. This in turn enhances children's learning. 56 (93%) of the sampled teachers agreed that the use of instructional resources enables the teachers to vary methodology which promotes learners' interest in the lesson. This is because instructional resources enable teachers to pass information to the learners, who can engage in meaningful activities like demonstrations, discussion and problem solving. It is through such activities that children are made to develop numeracy and language skills.

Findings show that 40 (67%) of the sampled teachers indicated that the use of instructional resources enhance individualized approaches to learning. These findings show that most of the teachers acknowledge the contribution of instructional resources to individualized learning as the learners are given opportunities to interact with the instructional materials individually and learn at their own pace. This is thus one of the reasons that encourage teachers to use instructional resources. As noted in the study, the children at this level learn better through play activities which is facilitated using instructional resources for play activities. There is thus need for the teachers to ensure appropriate resources are available to the children and that the children are free to interact with the materials as they learn. All the teachers who participated in the study noted that they find it easy to present lessons by using instructional resources; this is because the instructional resources enable them to organize the learning activities for learners, vary the instructional activities and give them the confidence to present and guide learners through the learning activities.

One of the reasons that encourage the teachers to use instructional resources was the influence of instructional resources on learning. All the teachers agreed to this by indicating that instructional resources contribute to learning in ECDE. This is attributed to the provision of a good environment that enhances children's learning. There is thus need to encourage the use of instructional resources in early childhood development education to enhance learning through play activities for the learners. 60 (93%) of the sampled teachers indicated that they find it easy to incorporate the instructional resources in lesson presentation. The results show that the teachers, who participated in the study, find it easy to incorporate instructional resources in learning and this is noted as a factor that promotes the use of instructional resources at this level of learning. 56 (93%) of the teachers noted that they find it easy to improvise instructional resources during lessons. This was also noted as a contributory factor to the use of instructional resources in teaching and learning in early childhood as the teachers find it easy to produce the instructional materials on their own.

Findings show that 48 (80%) of the sampled teachers rated highly the adequacy of the instructional resources at the ECD centres. This was indicated to promote the use of these resources in instruction. 32 (54%) of the sampled teachers indicated that at times they teach without instructional resources. The results show that despite the teachers understanding of the importance of instructional resources in early childhood education, some teachers indicated not to use the instructional resources at times. This could be attributed to lack of these resources or at times inadequacy especially in the centers with many children.

5. Discussion of Findings

5.1 Availability and Use of Instructional Materials

The research findings indicate the utilization of instructional resources in ECDE centres though in some instances, underutilization was noted. This could be attributed to the unavailability or insufficiency of these instructional resources in most of the (ECDE) Early Childhood and Education Centres. As noted in the study, most ECDE centres lacked instructional resources. It was found that few teachers used instructional resources in teaching their centres. However, use of the instructional resources was noted to some extent in the ECDE centres that participated in the study. This could be attributed to the situations in their institutions which dictate the availability of instructional materials that can be adopted for use in instruction to enhance learning and child development. Kotchar (1991) points out that instructional material is very significant teaching and learning tools. There is therefore need for the teachers to explore a wide variety of instructional materials to find the most suitable aids for instruction to broaden the acquisition of concepts and arouse interest of the learners. Instructional materials also make teaching easy, efficient, enhance collaborative learning, stimulate student's interest in the subject, and promote student's creativity and enthusiasm among others.

This therefore calls on the need to emphasize teacher's innovativeness in the development, acquisition and use of instructional materials in ECDE. The results indicate that in most ECDE centres, little emphasis is placed on the acquisition and use of instructional materials in the teaching and learning. This shows that there is lack of innovativeness on the part of teachers about development and use of instructional materials in teaching. It can therefore be safely concluded that the availability of instructional materials has a significant influence on the teacher's use of instructional materials in their work.

5.2 Instructional Materials and Learning in ECDE

The use of instructional resources in early childhood development and education centers is lauded due to the role of instructional resources in children's learning. The teachers indicated that instructional resources promote learning through providing hands on experiences to learners, motivating learners, individualizing learning, enhancing collaborative learning and making it easier for the teacher to present content to the learners. It is worth noting that learning is made easy and enjoyable when all human senses are involved. The said senses are hearing, seeing, and tasting, smelling and feeling. Psychologists also propose inclusion of all senses in the teaching and learning situations which is enhanced using instructional resources by teachers in the early childhood and education centres. Sampath, et al (1990:27) avers that psychologists say that we learn: 1.0 Percent through taste, 1.5 percent through touch, 3.5 percent through smell, 11.0 percent through hearing, and 83.0 percent through sight. They further say that we remember: 10 percent of what we read, 20 percent of what we hear, 30 percent of what we see, 50 percent of what we see and hear, 80 percent of what we say, and 90 percent of what we say and do.

Many scholars in educational technology have emphasized the effects of the use of instructional resources in teaching and learning. The findings of this study agree with other studies which emphasize the role of instructional materials in ECDE. Worth noting among them are Wittich and Schuller (1953), Dale (1954), Kim and Kellough (1974), Romiszowski (1988), Wendt (1975), Walkin (1982) and Hills (1986). Generally, they have concluded that the following results can be realized if instructional materials are carefully selected and used: learning becomes more interesting, effective and meaningful: learning is interactive; than that acquired by purely verbal teaching, learners acquire different skills and greater benefits can be obtained from the use of multimedia teaching resources. There is therefore need for the teachers to explore a wide variety of instructional materials to find the most suitable aids for instruction to broaden the acquisition of concepts and arouse interest of the learners. Instructional materials also make teaching easy, efficient, enhance collaborative learning, stimulate student's interest in the subject, and promote student's creativity and enthusiasm among others. The basis of instructional media is supported since they facilitate learning and thus as pointed by Kafu; 1976 and 1990, teachers need to employ a variety of instructional media to improve the learning

outcomes. This therefore calls on the need to emphasize teacher's innovativeness in the development, acquisition and use of instructional materials in ECDE.

6. Conclusion

The objective was to find out whether the availability and use of instructional materials influences the teaching and learning in ECDE, the results were in affirmative. The use of instructional resources in teaching in ECDE was reported by most teachers as useful in enhancing learning. However, most ECDE centres were reported to lack the necessary instructional resources for teaching and learning. Lack of innovativeness was noted as a factor that contributed to the unavailability and lack of use of instructional resources for teaching and learning in the ECDE centres. It can therefore be safely concluded that the availability of instructional materials has a significant influence on the teacher's use of instructional materials in their work. The findings of this study agree with studies of Ogoma (1987) who in her research on resources for teaching social studies found out that teachers were not eager to use the available instructional resources or even produce them. The availability and use of instructional resources in ECDE enhances children's learning and development. There is thus need for teachers to improvise and use available instructional resources for teaching in ECDE. Teachers should enhance learner participation in learning activities by using individualized instruction approaches, varying methodology with emphasis on indoor and outdoor play activities and going beyond presentation of facts to act as role models for children. Instructional resources were noted as important inputs for teaching and learning in ECDE. Therefore, there is need for the ECDE teachers to select and adequately use appropriate instructional resources and facilities for them to balance the acquisition of knowledge and development of children.

Therefore, it can be concluded that level of teacher's commitment to their work is dictated by the way they are governed by the head teachers. This is usually through financial and material support for the necessary resources for teaching and learning in ECDE, sponsorship to attend seminars and workshops, promotions, and provision of rewards/incentives for the better performing teachers. The results indicated lack of managerial support and this was noted as the contributory factor to the inadequacy or unavailability of instructional resources and a negative perception of the teaching at this level.

7. Recommendations

Based on the findings and conclusions of this study, there is need for emphasis on proper selection, acquisition and use of instructional resources in Early Childhood Development and Education centres if the objectives are to be attained. Some of the factors for consideration include among others ease of use, availability, and knowledge of use, lesson objectives, and the quality of the material. There is need for training of ECDE

teachers for them to consider the relevance of the content, usability, appropriateness, selection and use of instructional resources. There is also need for managerial and professional support beyond provision of funds, motivating teachers, recruitment of more ECDE teachers and purchasing of instructional resources.

References

- Adams & Swadnwer (2000). *Child and Youth Care Forum*, 29 (6) Journal Human Science Press, Inc. Arizona. USA.
- Bernard Van Leer Foundations (2002). *Following Footsteps: ECD Tracer Studies Early Childhood Maters*, No. 100, Netherlands.
- Brink, M. B. (2002). *Early childhood Education*. Human Science press.
- Bolick, C., Benson, M., M., Coutts, C. and Heinecke, W. (2003). Technology applications in Social Studies teacher education. A survey of Social Studies methods. *Contemporary issues in technology and teacher education* 3 (3). [Online] Available: http://www.citejournal.org/vol3/iss3/social_studies/article/cfm
- Dahar, M. A. and Faize, F. A. (2011). Effect of the availability and the use of instructional materials on academic performance of students in Punjab (Pakistan). *Middle Eastern Finance and Economics Issue* 11.
- Eshiwani, G. S. (1993). *Education in Kenya since Independence*. Nairobi, East African Publisher.
- Indire G. W. (2002). *Resource Organization and Management in Learning and Teaching Education Media Sources (Resources)*. K.I.E. Nairobi.
- Kadzera, C. M. (2006). *Use of instructional technologies in Teacher Training Colleges in Malawi*. Unpublished PhD Dissertation, Virginia Polytechnic Institute and State University, USA.
- Kerlinger F. N. (1983). *Foundation of Behavioral Research*. 2nd Edition, New York: Renehart and Winton Inc.
- Killen, R. (2006). *Effective teaching strategies: Lesson from Research and Practice* (4th ed.) New Castle: Thompson.
- K. I. E. (1999). *NACECE Guidelines for Early Childhood Development in Kenya*, Nairobi.
- Kochar, S. K. (1992). *Methods and Techniques of Teaching*, Sterling Publishers, Private Ltd. New Delhi.
- Ministry of Education Guide (1990). *Kenya Pre-School Teachers' Activities Guide Series*. Management and Language Activities. K. I. E. (NACECE). Kenya Literature Bureau, Nairobi.
- Ministry of Education (Report, 2006). *Early Childhood Development Policy Framework*. Government Printers, Nairobi.
- Ministry of Education (2000). *Primary School Head Teachers Guide on Transition from Pre-school to Primary*, Nairobi.

- Mugenda, O. M. & Mugenda A.G. (1999). *Research Methods: Quantitative and Qualitative Approaches*, African Centre for Teaching Studies. Nairobi, Kenya.
- Nyongesa S., G. E. (2001). *Planning for Day Care Centers in Nairobi*, unpublished thesis, Nairobi University.
- Ongus, V. (2003). *The availability and use of learning Resources: A case study of Nandi Uasin Gishu and Tranzoia Districts*. M. Phil. Thesis, Moi University.
- Read, K. (2001). *The Nursery School*. A Human Relationship Laboratory, Sounders Cos., Washington.
- Shiundu, J. S . and Omulando, S. (1992). *Curriculum Theory and Practice in Kenya*, Oxford University Press, Nairobi.
- World Bank Report (2003). *From Early Childhood to Human Development*, Washington DC, USA.

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