

# The Nature of Classroom Environment for Drawing in the Acquisition of Communication Skills in Early Years Education in Kenya

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## Abstract

A conversation is the very heart of schooling and pedagogy. Studies globally and regionally indicate a low reading and communication attainment by children, with 90% of them in 3<sup>rd</sup> world countries not attaining the average levels required. The majority across Africa struggle to read and communicate, which leads to meagre academic performance, Kenya is no exception to this trend. This scenario has been associated partly with challenges related to communication skills acquisition. Therefore, how teachers' assist learners to obtain the ability to converse is a question in this study. This study sought to explore examine the nature of classroom environment for drawing in the acquisition of communication skills in early years' education in Kenya. The study was guided by Montessorri model and Dewey's social constructivism theory. The study adopted a pragmatic philosophical approach which allows for a mixed method research design. The study's population comprised of 6 ECDE sub-county Early Years Education program officers, 1201 EYE schools and EYE teachers and 53,276 PP2 class learners in Nandi County. The study stratified Nandi County into six sub-counties and used Yamane formula to arrive at the sample of schools. 300 teachers, one per school was purposively sampled out and 15 teachers were selected through convenience sampling for the interviews. Non-Proportionate purposive sampling was used to pick the drawings from the pupils. A census of 6 EYE program officers was picked as respondents. The research instruments used in this study were questionnaires, interview schedules and direct observational schedule. A mixed approach research design was used whereby quantitative data were analyzed using descriptive and inferential statistics while qualitative data were analyzed using themes. There is a substantial positive relationship between the classroom nature of environments in the acquisition of communication skills ( $\beta_2=0.245$ ,  $p<0.05$ ). This was supported by views of the teachers and program officers who were interviewed, and observations made on children's drawing and the classroom environment. The study concluded that the nature of the classroom environment are not adequately prepared with content knowledge on drawing since drawing is an effective tool in EYE and teachers can utilize it to assist learners acquire their communication skills. Therefore, the study recommends refresher courses and further training, especially on how to organize and manage the EYE classrooms as stated in the EYE curriculum design, to improve the teachers' pedagogy in drawing.

**Keywords:** Acquisition, Classroom, Communication Skill, Drawing, Environment.

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## INTRODUCTION

A conversation is the very heart of schooling and pedagogy. Studies globally and regionally indicate a low reading and Communication achievement by children with 90% of them not attaining the average levels required [1]. The majority of children across Africa struggle to read and hence communicate leading to poor academic performance. Therefore, this study recognizes the most essential skill in Early Years education which is effective communication. Communication is particularly significant for interactions, social relationships and building a sense of

belonging in EYE as reiterated by Jwan [2]. He further notes that the most outstanding accomplishment of the pre-school years' are the learners' development of communication skills.

Annings's et al., [3], in support of children's drawings notes that self-expression is important and useful as reading and writing skills. This is in line with [4] who asserts that language as a communicational medium is not adequate for the expression of everything, therefore drawing, graphic-narrative play and other forms of artistic expression offer important

and distinct forms of meaning-making through communication, which is intricate, multifaceted, symbolic and metaphoric means of communication Harris [5].

The nature of classroom environment for drawing includes; the infrastructure that supports drawing activities as well as the organization of resources that may support classroom experiences. This study sees the possibility of organizing the classroom environment to support drawing activities since young learners' have limited vocabulary to use for self-expression [6].

Global and regional studies including; Nigeria, Rwanda, Malawi and Uganda indicate a low reading and communication achievement by children with 90% of children in 3rd world countries unable to read a basic book making them not reach the average levels required. A study piloted in Kenya, Uwezo [7] discovered that 70% of the standard three pupils were not able to read a standard 2 level narrative both in Kiswahili and English and that learners of class three cannot make coherent sentences of 5 to 6 words and are well-known by their teachers as communicating primarily through cries or facial expressions and have no clear use of signs, pictures or words. It further, highlighted an alarming report that has raised a point of apprehension to the Education stakeholders that, learners' realization in reading and communication affects the subjects activity areas transversely in the Early Years Syllabus.

On Ministry of Education Kenya Vision 2030 on 100% transition of learners to junior secondary, this study has noted with concern the grievous challenges on 100% transition of learners that includes congestion in the classrooms and over stretched environmental resources and increased workload on teachers [8]. Given to these concerns, the researcher feels that learners need to be properly equip and grounded on the communication skill competency to enable them achieve a conversation with the teachers as a feedback on a learning process. This Communication is a core skill and is a competency to be acquired at an EYE level Ministry of Education, Kenya vision 2030, 2012. This study sought to explore the use of drawing as a pedagogical tool in the acquisition of communication skills in Early Years Education in Nandi County, Kenya.

The purpose of this study is to examine the nature of classroom environment for drawing in the acquisition of communication skills in early year's education in Kenya.

The following hypotheses were tested;

**H<sub>01</sub>**: Nature of the classroom environment for drawing has no significant influence on the acquisition of communication skills in Early Years Education.

### Scope of the study

The study was carried out in EYE settings in Nandi County, Kenya. It links the nature of classroom environment as a tool in the acquisition of communication skills in Early Years' Education. The study 'limited' itself to EYE schools in Nandi County region. The study adopted the KICD Competency-Based Curriculum. The study adopted sequential explanatory research design and its respondents were EYE and teachers, Pp2 learners' and ECDE programme officers in Nandi County. The research tools used were questionnaires, interview schedules and observational schedule. The research was carried out from September 2019 to March 2020.

### Limitations of the study

All research suffers from limitations owing to the uniqueness of its characteristics [9]. A limitation is an aspect that may sway the results negatively, but over which the researcher has no control [10]. The current study was influenced by some limitations, which includes the following:

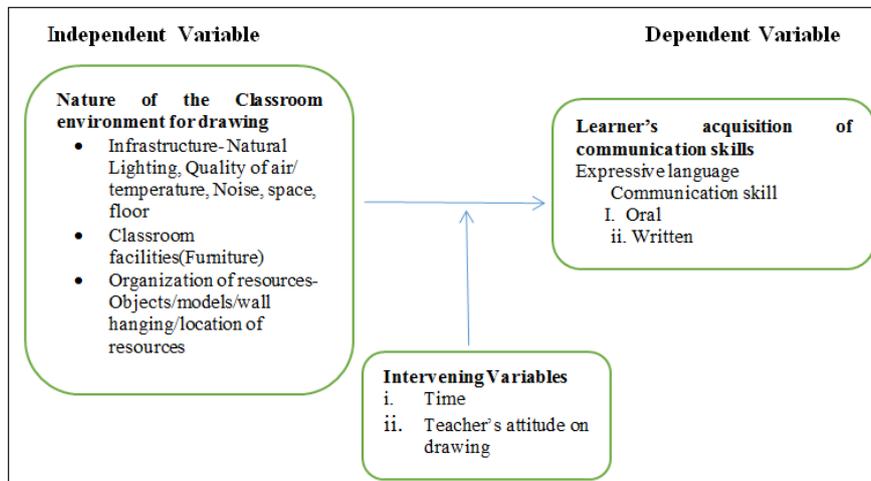
Not all EYE teachers are willing and are co-operative to provide all the information required. Nevertheless, an introductory letter was attached to the questionnaire to guarantee the confidentiality of the information given by the respondents.

This study was guided by Montessori model of environment. Her ideas are relevant to this study and informs the theoretical framework. The Montessori model is characterized by prepared surroundings that everything the child came in contact with would expedite and capitalize on independent learning and exploration. The idea of Montessori environment is relational to children's stature and size, and it has low shelves and tables and chairs of different sizes where children can sit individually or in groups. The classroom is divided into theme areas that includes; the learning corners that allows flow of learning processes. Each child can choose to use a material by taking it from the shelf and placing it back to its place comfortably. This kind of an environment facilitates a lot of movement and activity in a classroom without disrupting the learning activities. Children are able to choose and work on activities at their own pace. The prepared environment is characterized by adequate space, neat, and attractive in appearance, simple and real, where each component exists for a reason in order to help in the in the acquisition of learning and the child's self-expression. This promotes socialization, respect, solidarity and communication among learners' naturally. Dr. Montessori supposed that, every instructor should "follow the child", distinguishing the organic process of each age, and building an auspicious environment to respond to the child's needs.

This study adopted the following conceptual framework to illustrate the role played by classroom

environment as a tool in the acquisition of communication skills in Early Years' Education in

Kenya.



**Fig-1: Conceptual Framework**  
**Source:** Author Tonui Betty 2020

Regardless of numerous research studies showing the efficiency of teacher application of child-centered learning in different educational surroundings, few studies have concentrated on the classroom environment in Pre-Schools as was done [11]. The quality of the learning environment in the classroom setting is critical to effective teaching and learning processes in the classroom.

Literature review from the USA, Britain, and New Zealand emphasizes the importance of structural designing of a classroom. Detailed evidence showing that structural aspects of classrooms, such as lighting influence students' ability to learn effectively. Furthermore, a substantial proportion of the United States of America classrooms promote the adequacy of natural light. Research says students exposed to more natural light (i.e., daylight) in their classrooms perform better than students exposed to less natural light Edwards & Torcelli [12] & Tanner [13]. In a study with more than 2,000 classrooms in California, Washington, and Colorado, students who were exposed to a larger amount of daylight in their classroom had higher math and reading test scores than students who were exposed to less daylight in their classroom (2%-26% higher, depending on school district), even after statistically controlling for student population characteristics such as socioeconomic status and race Hescong Mahone Group [14]. According to the National Center for Education Statistics Alexander & Lewis [15], 16% of schools with permanent buildings and 28% of schools with temporary (i.e., portable) buildings have natural lighting that is unsatisfactory or very unsatisfactory. Although incorporating more daylight into classrooms may be beneficial, it should be done carefully, to avoid visual discomfort and temperature increases [16].

Classroom management and organization are intertwined, Farrant and & Coehlo [17]. While rules

and routines influence student behaviour, class organization affects the physical elements of the classroom, making it a more productive environment for others and especially for drawing activities. Twoli et al., [18] confirm that the Classroom organization includes furniture arrangements, location of materials, displays and fixed elements. An organised classroom is seen to influence the behaviours of Learners and this is supported by [19] that a well-organised classroom enables learners to access drawing materials they need without having to ask the teacher. This, therefore, enables the learners to use and return those materials on their own, that means, an individual learner can focus on materials that interest him/her for individual expression of ideas. This makes learners feel independent, curious and successful in their learning processes, invites exploration unlike in a disorganized classroom or environment, where all materials are crammed in one place. Ng'asike [20] notes that disorganized classroom frustrates learners and their learning experiences and causes them to lose interest in their learning activities. Therefore, teachers have the responsibility of ensuring that their classes are clean, well-organized and ideal for learning and self-expression that further enhances the use of drawing activities in the acquisition of communication skills in Early Years Education. Relevant literature reviewed does not explicitly bring out the relationship between the uses of drawing activities in the acquisition of communication skills in Early Years Education.

Noises in the classroom is a significant issue in the nature of the classroom. Excessive external noise hinders learning [21]. The source of classroom noise can vary, but commonly includes road traffic and constructions among others, U.S. Architectural Transportation Barriers Compliance Board, 2002, Woolner, Hall, Higgins, McCaughey, & Wall [22].

Classrooms with greater external noise are more likely to have lower student success. For instance, one study compared reading test scores of students in two schools with matched demographic factors (e.g., household income). One school was along the road flight path of a major airfield, whereas the other was in a quiet neighborhood. Students from the school in the flight path performed significantly inferior than those from the unobtrusive school [23]. In an experimental demonstration, 12- to 14-year-old students in Sweden were randomly assigned to read about world cultures in the presence of one of four prerecorded noises (aircraft, road traffic, train, or verbal) or quiet conditions. Students performed significantly worse on a subsequent test of reading comprehension when exposed to aircraft or road traffic noise than without noise. Train noise and verbal noise did not interfere with reading comprehension in this study Dockrell & Shield [24]. Unsatisfactory or very unsatisfactory noises were reported for 14% of U.S. public schools with permanent buildings and 21% of U.S. public schools with temporary buildings [15]. Classroom noise is an even more serious concern for students with hearing loss or attention deficits U.S. Architectural Transportation Barriers Compliance Board 2002.

Another significant factor is the temperature within the classroom. The ideal temperature for learning is by all accounts somewhere in the range of 68° and 74, Earthman [25]. In an analysis on impacts of temperature on learning, male students performed best on a trial of word affiliations when they had taken in those relationship in a 72° room, and performed essentially more unfortunate as temperatures turned out to be more outrageous in either heading [26].

Another huge factor is the Air Quality inside the ECDE study hall. Exploration demonstrates that presentation to inferior quality air is identified with diminished understudy participation and influences instructors' capacities to show well Schneider [27].

A significant factor also considered is the accessibility of learners to utilizing space and resources which includes chairs, tables, and shelves within the classroom. One investigation that adjusted the classroom physical condition (e.g., Noise quality, guest plans, visual incitement, and study hall association) improved scholarly commitment for hard of hearing and almost deaf understudies, despite the fact that it couldn't disconnect which factor(s) had the effect [28]. Numerous investigations have uncovered a noteworthy connection between the nature of physical foundation and understudy accomplishment. These outcomes firmly propose that building and study hall enhancements to suggested standard offices can expand understudy learning and accomplishment. Most of Nandi County ECDE government funded schools have building-quality issues, with limited lighting, clamors,

temperature guideline, or air/floor/material/writing slate quality and foundation.

Classroom Layout is a very significant factor in this study. Furniture game plan in the study hall impacts how agreeable understudies feel and the measure of collaboration with different understudies and with the instructor Burgess and Kaya [29], Cheryan et al., [30], Martin [31]. Various courses of action may accomplish objectives for various substance regions. Clustered arrangements can likewise prompt more troublesome and off-task conduct [32]; accordingly, task requests and learning objectives are pertinent contemplations in choosing ideal guest plans [33].

Objects and wall hangings is another significant factor in classroom organization. Everyday objects/ hangings displayed in a classroom can be detrimental when they distract from learning. In one investigation, kindergartners were arbitrarily appointed to learn initial science exercises in a classroom that had many or no wall displays. Understudies in the study hall with wall displays were more diverted and performed more awful on exercise worksheets than understudies in the exposed classroom [34]. More exploration can assist with understanding ideal measures of tapestries and the substance and nature of inside decorations and how much these findings generalize to children of older ages.

More research has been done in countries such as South Africa and Nigeria and Rwanda on the influence of classroom design on effective learning. This study specifically sought to examine the nature of the ECDE classroom environment for drawing in the acquisition of communication skills in Early Years Education in Kenya which no other study has attempted to do.

### Research Design

The researcher adopted a successive explanatory research design. A successive explanatory research design centers around clarifying the parts of a study in an itemized way whereby, giving subtitles where a modest quantity of data exists for a specific thought at the top of the priority list of the researcher [35].

### Philosophical paradigm

This study embraces a logical perspective in its philosophical worldview to assess the utilization of drawing as an instructive tool in the acquisition of communication skills in early year's education in Kenya. The pragmatist approach was used to guide this study. The pragmatic choice gives room for mixed-methods to deal with the design of the research, both qualitative and quantitative methodologies.

**Research method and study area**

Mixed approach was used in this study. In this study, the majority views were produced quantitatively while the in-depth perspectives on the study was done qualitatively. This research was carried out in Nandi County, Kenya.

The target population included a total of 805 public and 402 private ECDE schools/centers in Nandi County and target six (6) ECDE Sub County program officers, one per Sub County, 1,201 ECDE teachers from both public and private schools, 53, 276 Pp2 class from both public and private schools as shown in Table-1.

**Table-1: Target Population**

Sub county	Schools	ECDE Sub County program officers	ECDE Teachers	Pp2 class
A	218	1	218	9183
B	220	1	220	10531
C	227	1	227	7555
D	167	1	167	111124
E	124	1	124	8965
F	245	1	245	6486
<b>Total</b>	<b>1201</b>	<b>6</b>	<b>1201</b>	<b>53,276</b>

Source: Nandi County Government Department of Education (2019)

**Sampling and sampling techniques**

The study sampled EYE 300 schools and 300 teacher were picked using simple random sampling and sample size of Pp2 class. After collecting drawings of Pp2 class, a Non-Proportional purposive sample size was used to pick the samples.

The study applied non-probability purposive sampling to pick teachers per Sub County to participate in the interviews and EYE learners' drawings to participate in the study. Therefore, 15 teachers ultimately participated in the interviews and 6 EYE learners' drawings included in the study.

**Data generation instruments**

The study adopted a mixed-method approach prompting the utilization of both quantitative and

qualitative methodologies in data generation. The primary data generation instruments incorporated a questionnaire and an interviews schedule for both the teachers and Ministry of Education Programme officers.

**FINDINGS AND DISCUSSIONS**

The study sought to examine the nature of the classroom environment for drawing activities in the acquisition of communication skills in the Early Years Education. The study used the questionnaires that was answered by the EYE teachers'. Interviews were done with teachers of EYE and direct observation of the classroom was done. The research statements were in form of a scale: The teachers were to respond in terms of sufficient and not sufficient. The results are indicated in Table-2.

**Table-2: Nature of the Classroom Environment for drawing**

Classroom Environment		Sufficient	Not Sufficient	Mean	Sd
Lighting(Natural & quality)	F	193	42	1.18	0.38
	%	82.1	17.9		
Space within the classroom	F	165	70	1.30	0.46
	%	70.2	29.8		
Size of the classroom	F	176	59	1.25	0.43
	%	74.9	25.1		
Cleanliness	F	178	57	1.24	0.43
	%	75.7	24.3		
Accessibility of drawing resources	F	75	160	1.68	0.47
	%	31.9	68.1		
Learning Corners	F	141	94	1.40	0.49
	%	60.0	40.0		
Sitting arrangements	F	200	35	1.15	0.36
	%	85.1	14.9		
Organization of the classroom	F	186	49	1.21	0.41
	%	79.1	20.9		
Ventilation (Quality of air)	F	228	7	1.03	0.17
	%	97.0	3.0		
Chalk board Position and Visibility	F	221	14	1.06	0.24
	%	94.0	6.0		
<b>Valid N</b>		<b>235</b>			

This study finding in Table-2 shows that a majority (82.1%) of the EYE teachers noted that lighting was sufficient in the classroom environment but (17.9%) of the EYE teachers noted that lighting was not sufficient. Respondents nonetheless agreed that lighting is sufficient (Mean=1.18, SD=0.38). This implies that lighting was sufficient in the classroom environment. The finding concurs with Research that indicates that, learners' exposed to more natural light (i.e., daylight) in their classrooms perform better than learners' exposed to less natural light [12, 13]. Although incorporating more daylight into classrooms may be beneficial, it should be done carefully, to avoid visual discomfort and temperature increases [16]. The results suggest that, Majority 193(82.1%) of the schools have adequate lighting while others 42(17.9%) have poor lighting depending on the kind of infrastructure of the school.

Secondly, Majority (97%) of the EYE teachers noted that the quality of air through the ventilation in the classroom is sufficient and fresh whereas (13%) said ventilation in the classrooms was not sufficient to the classroom could not get enough fresh air making the classroom stuffy. Respondents agreed that ventilation in the classrooms was sufficient (Mean=1.03, SD=0.17). The findings concur with Striker and Kimmel [36] that suggested that sufficient ventilation in the classroom promotes healthy fresh air, which promotes good health on both the teacher and the learners lessening the incidences of airborne communicable diseases in the classroom.

The majority (74.9%) of the respondents noted that the size of the classroom was sufficient while (25.1%) indicated as not sufficient. Respondents still noted that the size of the classroom was sufficient (Mean=1.25, SD=0.43). This implies that the classrooms had sufficient size. The classroom environment is one of the indicators of the physical environment in EYE settings, to a big extent, room size will determine the kind and amount of resources that can be accommodated in the space as well as the number of learners [37].

Thirdly, (75.7%) of the respondents noted that cleanliness in the classrooms was sufficient though (24.3%) said it is not sufficient and the respondents still believed that cleanliness in the classroom is still sufficient (Mean=1.24, SD=0.43). This implies that cleanliness is fundamental to every class environment. The finding concurs with Okudo and Omotuyole [38] who found out that learning in Early Childhood Education settings requires that learners' interact with their environment as well as learning various activities that includes cleanliness and arrangements space available.

Fourthly, a majority (68.1%) of the respondents, indicated that access to drawing materials

in the classroom is not sufficient and (31.9%) said it is sufficient. The respondents, however, agreed that access to drawing resources are sufficient (Mean=1.68, SD=0.47). This implies that learners have limited access to drawing resources in the classroom. The learners' at this age are active in driving their own learning process therefore, it is imperative to provide adequate space and resources to explore in a direct, hands-on manner [39].

The results also concurs with [40] carried out in Mpika, Zambia, reported that; an attractive classroom with talking walls such as interesting notice boards and charts around the room, visual teaching aids such as pictures, diagrams and world maps should be made accessible to the learners. These resources plays a significant role in assisting the learners to learn effectively and enhance communication skill acquisition. Fifthly, a majority (60%) of the respondents noted that learning corners in the classrooms are sufficient although (40%) said it is insufficient. Respondents agreed that learning corners in the classrooms were sufficient (Mean=1.40, SD=0.49). This implies that learning corners in the classrooms are sufficient.

Sixthly, majority (85.1%) of the respondents noted that sitting arrangements in the classrooms are sufficient while (14.1%) thought sitting arrangement as not sufficient but ultimately the respondents said that sitting arrangement in the classroom was sufficient (Mean=1.15, SD=0.36). The findings concur with Malunga [41] who titled an investigation on the use of sign language by regular teachers demonstrated in relation to the learning environment that, the best possible conditions for drawing and writing were quiet places with good sitting arrangement. The organized seating arrangements organizes the mental structures of the learners while the quietness promotes the learners' concentration on their ideas.

The researcher delved more to find out the nature of classroom environment, organization of the classroom and the use of drawing resources if adequate to support drawing activities. This included the sitting arrangement, accessibility to drawing resources and learning corners. Use of pencils/ crayons and paper among others. The EYE teachers through an open-ended questionnaire had this to say through an excerpt; 'We have sufficient natural lighting coming into the classroom, sometimes during sunny days we need curtains to dim a little bit to avoid too much lighting in the classroom because it creates reflections on the surface' EYET Participant serial no 7.

Another EYE teacher had this to say, 'On the contrary, our classroom requires to be lighted because of insufficient windows. This also makes the classroom stuffy therefore making the classroom uncomfortable for learning for the teacher as well as the

learners. This hinders creativity in drawing activities' EYET Participant serial no 2.

"Sitting and learning corners organization proves to be challenging to me because Space is limited in my classroom. This is because I have many learners and the kinds of desks I have are not adjustable and hard to arrange to fit some class activities like drawing. EYET Participant serial no 9.

These findings propose that association of a classroom as a basic factor in drawing and creative exercises as well. This is further observed in appendix VII. These discoveries concurred with Liwakala [40] who found that the sitting arrangement was cardinal that learners' sat on seats so that they could see both the educators and their companions however much as could be expected. This attributed to the way that the learners could see the different signs, lip-read and decipher non-verbal communication as they were in full view on all members in the classroom. It was additionally upheld by Ademokoya [42] in a study entitled classroom communication and placement of learners' in an inclusive class carried out in Nigeria found that to help improve results of learners with hearing disability, it was significant that, their immediate encounters in the classroom were understood. This is further in concurrence with Adams [43] that a decent setting is a significant component in effective EYE learning.

Seventh, the majority (79.1%) of the respondents noted that the organization of the classroom is adequate but (20.9%) agreed that the organization of the classroom was not adequate and still majority believed that arrangement was adequate (Mean=1.21, SD=0.41). The findings concur with [44] who asserts that children need many opportunities to draw, interpret, and revise their drawings; therefore, the teaching and learning environment must offer support, time, space, clarity, well ventilated and opportunity for children to achieve this aim.

Eighth, (70.2%) of the respondents indicated that space within the classroom was sufficient but (29.8%) of the respondents noted that it was not sufficient and even though, respondents still agreed that space with the classroom was sufficient (Mean=1.30, SD=0.46). This implies that the school had sufficient space. The study reveals through direct observation that there was no separate room for drawing activities because the learners used the same classroom and tasks for all activity area content.

The findings further revealed that, the Sub-County ECDE program officers believed that a professional teacher, has quality organizational skills of the classroom space because they work from the content knowledge perspective. The program officer during an interview had this to say:

"The EYE teacher's organizational skills has a strong influence on the classroom education because s/he knows what space is fitting for the preschoolers as per their age and abilities" Program officer serial no d

These results suggest that, a trained teacher has adequate skill for arranging space and resources for drawing activities in EYE. The findings concur with Chepkonga [37] who asserts that the quality of learning space in a classroom setting is critical to effective teaching and learning processes. A body known as the Council of Educational Facility Planners International offers its advisory recommendations on space requirements. This body however argues that certain critical factors such as geography, curriculum, and type of building ought to be taken into account when determining classroom size [45].

Lastly, the majority (94%) of the EYE teachers noted that the chalkboard position and visibility in the classroom are sufficient but only (6%) of the respondents noted as not sufficiently visible. Respondents agreed however that chalkboard position and visibility in the classroom were sufficient (Mean=1.06, SD=0.24). This implies that the chalkboard serves an important role and has been positioned to serve its' purpose as a constant example of neat planned work to be well executed. It is observed that clean work, better writing, figuring and drawing arc displayed the chalkboard. Karsenti [46], supported Davis [47] observation that the blackboard is mostly used in the classroom lessons and it should be planned to be used in explanations, demonstrations, summaries and children's exercises. This makes the chalkboard positioning a critical factor in the learning process.

The researcher was also interested in finding out the chalkboard positioning, visibility and the general organization of the classroom and this is what the Programme officers through an interview had to say in an excerpt;

'The chalkboard is always positioned in front and is visible to learners in class. The problem arises when the learners are too many and some end up straining to see the board. It is a requirement to plan and organize a classroom to face the chalkboard. Programme officer serial no.f

This excerpt suggests that, the chalkboard is strategically positioned in a direction the teacher sees best visible for the learners. The exempt that the teacher organizes the learners sitting positions to face the chalkboard that is always set in front of the class further communicates this. This is in line with the organization of classroom environment and is one of the indicators of the physical environment in EYE settings as supported by Karsenti [46].

In direct observation of the classroom context, drawing is seen as an aid of illustration and activity to keep learners busy. The findings further agreed with Lyster [48], in direct observation of an early year's classroom that, when children draw gathered around a table, they reveal that there is a wide range of communicative practices used to challenge the learners into explorative activities that generates discussions and ideas. This includes; drawing of objects, disagree or collaboratively decide on what to draw and how to draw it. Inform the others about the content of their drawings and the meaning of their symbols, narrate stories, guess the meaning of their peers' symbols, and occasionally copy others' symbols. All these put together enhances communication skill acquisition in EYE. In situations where there is inadequate resources, drawing activities becomes unachievable.

Further, the standard classroom sizes are still far from the reality as has been stipulated to accommodate the space of resources as well as the number of learners, Republic of Kenya, 2017. The Kenya Early Years Education Service Standard Guidelines 2006 prescribe minimum space requirements per child in early education centers and recommends a standard classroom size of 8 metres by 6 metres that should hold a maximum of 25 children. It also recommends the provision of a chair and table for the teacher as well as a cupboard in every classroom. This is of course in addition to children-size tables and chairs which must also be suitable and appropriate for use by learners with special needs. With an indoor space or environment, there are two important considerations. The first one is its fixed features. These features include the shape and size of the room, position of the door and windows, and any built-in space for storage such as shelves. The second consideration is the movable or semi-fixed features in the room. These features include the arrangement of learning materials and furniture, room texture and color [37]. Education authorities prescribe minimum space requirements per child in early education centers. The Early Years

Education teachers' (EYET) responses to in-depth interviews further revealed that, there is a relationship between the nature of classrooms used by learners and the acquisition of communication skills. This implies that a teacher can create a safe classroom environment where learners feel comfortable to open up and express their ideas. Learners are able to enjoy their learning experiences hence exploration of activities and communication of ideas are enhanced. Social interaction is also an important aspect enhancing communication skill development. Learners share ideas and tell stories of their drawings. As observed, 59(25.1%) schools within Nandi County have infrastructural challenges such as in adequate space within the classroom, poor lighting and ventilation and use of desks and benches without tables. To overcome the challenges mention, the study suggests to advice the school management on infrastructure challenges to use the Kenya standard guidelines of designing EYE schools. This will cater for the the adequacy in ventilation and lighting, the quality of floors as well as the recommended classroom spacing needed. Further, the study suggest to challenge learners into Critical Creative thinking for individual self expression and Practice active narration based on their drawing. Teachers can provoke the learners into reflective learning opportunities because this will promote class discussions thus enhancing communication skill acquisition. This is in line with [49, 50] that better outcomes in EYE classroom lie more on the ability of qualified teachers to create a high-quality pedagogic environment that made the difference in teaching/learning processes. The next section is regression analysis for the nature of classroom environment for drawing activities.

**Regression Analysis for Nature of the Classroom Environment for drawing**

The study examined nature of classroom environment for drawing in the acquisition of learner's communication skills in Early Years' Education. Table-3 presents the results of regression analysis.

**Table-3: Regression Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.513	.264	.262	.44877

**a. Predictors: (Constant), Nature of the Classroom Environment for drawing**

**b. Dependent Variable: Acquisition of Communication Skills in Early Years Education**

Model summary gives the coefficient of determination (R<sup>2</sup>) which shows extent of the variance in the dependent variable that is predictable from the independent factor and correlation coefficient (R) shows the level of relationship between the dependent and independent factors. The results presented in Table-4 present the fitness of model utilized on the regression model in explaining the phenomena of the study.

Nature of classroom condition for drawing exercises was found to be a palatable variable

impacting the acquisition of communication skills in Early Years Education in Kenya. This is upheld by coefficient of determination otherwise called the R square of 26.4%. This implies that the nature of classroom environment for drawing exercises explain 26.4% of the variations in the dependent. The results further infer that the model applied to interface the relationship of the variables was good. Adjusted R<sup>2</sup> is a modified variant of R<sup>2</sup> that has been adjusted for the quantity of predictors in the model by less than chance. The adjusted R<sup>2</sup> of which was somewhat lower than the

R<sup>2</sup> value was an exact pointer of the connection between the independent and the dependent variable since it is sensitive to the addition of irrelevant variables. The adjusted R<sup>2</sup> indicates that 26.2% of the adjustments in acquisition of communication skills in Early Years Education in Kenya are clarified by the model.

### Assessing the Fit of the Regression Model

The study examined whether the multiple regression model was a good fit for the data. Analysis of Variance (ANOVA) was conducted in order to find out if Acquisition of Communication Skills in Early Years Education can be predicted without relying on nature of classroom environment. The results of Analysis of Variance (ANOVA) are shown in Table-4.

**Table-4: Results of ANOVA**

	Sum of Squares	Df	Mean Square	F	Sig
Regression	16.799	1	16.799	83.412	.000a
Residual	46.925	233	.201		
Total	63.724	234			

**a. Predictors: (Constant), Teacher's pedagogical content knowledge on drawing**

**b. Dependent Variable: Acquisition of Communication Skills in Early Years Education**

The findings of the study indicate that the connection between nature of the classroom environment and use in the acquisition of student's communication skills in Early Years' Education was measurably noteworthy ( $F=83.412$ ;  $p< 0.05$ ). This infers that the regression model was a good fit for the data. Thus nature of the classroom environment impacts

acquisition of Communication Skills in Early Years Education.

### Regression Coefficients

Relapse of coefficients brings about Table-5 shows that nature of classroom environment impacts positively and significantly the acquisition of communication skills in Early Years Education ( $\beta=0.417$ ,  $p=0.000$ ).

**Table-5: Regression Analysis Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.624	.193		3.233	.000
	Nature of classroom environment	.417	.046	.513	9.133	.000

The optimal model was;

$$Y = 0.624 + .417X_1$$

Where:

Y represents Acquisition of Communication Skills in Early Years Education, dependent variable

X<sub>1</sub> represents Nature of classroom environment

From the regression model registered in Table-4, the research hypothesis were tested using a significance level of 0.05. The research aimed to test the hypothesis with an aim of failing to reject or rejecting the relationship between the independent and dependent variable.

**H<sub>01</sub>:** The nature of the classroom environment has no significant impact on the acquisition of communication skills in Early Years Education. The regression results in Table-6 show that there is a significant connection between the Nature of the classroom condition in the acquisition of communication skills in Early Years Education with a  $\beta$  coefficient of 0.417 and  $p= 0.000$ . The study rejected the hypothesis. These results are in line with Law 2016 who examined what instructors think about drawing related experience (DRE) and how confident they are in their knowledge. 73 middle school physical education

teachers filled a 3-section cognitive DRE test and a self-efficacy questionnaire that required responses to statements about how certain they were in breezing passing a DRE instructional assessment. Results showed that educators were extremely certain about their insight into DRE.

## SUMMARY, CONCLUSION AND RECOMMENDATIONS

The study findings on the Nature of classroom setting for drawing activities in the acquisition of communication skills in Early Years Education revealed that; a decent classroom setting empowers teachers to decipher knowledge and aptitudes to learner's without struggling. This is on the grounds that a helpful domain is center for drawing exercises just as the acquisition of communication skills. The study noticed that, there is a significant positive correlation between the idea of classroom condition and the acquisition of communication skills ( $\beta=0.245$ ,  $p<0.05$ ). Educators should make the EYE classroom setting more -centered and more child amicable as proposed by UNICEF's current initiative for ECDE classroom environment which recommends that work areas and seats ought to be detached so that the seating arrangement can be varied to permit more

communication among learner's and between the learner's and their teacher's.

## CONCLUSION

It was additionally observed that, the classroom environment influences the acquisition of communication skills in Early Years Education. The study noted that with adequate space in the classroom setting it gives room for learner's to express their ideas. This study concludes that, there is sufficient space inside the classroom in which learner's could engage in drawing activities thus express their ideas. PP2 learners' are dynamic by nature. They utilize the physical environment in a hands-on manner. A favorable learning environment turns out to be an important aspect in the acquisition of communication skills in EYE.

It was further seen that, the content of learner's drawings has a positive significant impact in the acquisition of Communication skills in Early Years Education. Content of learner's drawings reveals their inventiveness and creativity of thoughts through their memories and communicating them through drawing therefore requires an environment supportive of drawing tasks.

## RECOMMENDATIONS

1. Based on the study finding, the study recommends quality classroom environments that supports learning in EYE. The findings established the wanting status of the classroom floors, windows and broken walls. Emphasis should be made on the influence of drawing on the patterns of classroom organization. This is because, resorting to drawing as a tool and learners sharing and expressing their ideas allows for an active 'participation' in the acquisition of communication skills. This leads to meaning-making process whereby teachers would understand the learner's communication and plan for relevant activities based on a shared process of communication. Therefore, the quality assurance officers should be keen on the quality of classrooms and emphasize the recommended standard facilities for EYE.
2. The study also established that learner's drawings consist of things within their school and home environments. This study therefore, recommends that teachers' should facilitate more exposure to learners by engaging resource persons for storytelling, role playing and taking the learners to places of significance to actively build on their knowledge and experience. The study established that learners generate ideas based on their cognitive development acquired in the learning process as has been reiterated by Piaget's statement that, children draw what they know.

## REFERENCES

1. Sokolić, J., Giryas, R., Sapiro, G., & Rodrigues, M. R. (2017, July). Generalization error of deep neural networks: Role of classification margin and data structure. In 2017 International Conference on Sampling Theory and Applications (SampTA) (pp. 147-151). IEEE.
2. Jwan, J. O., & Kisaka, S. T. (2017). Democracy, ethics and social justice: Implications for secondary school leadership in Kenya. *South African Journal of Education*, 37(3).
3. Vu, A., Ramanandan, A., Chen, A., Farrell, J. A., & Barth, M. (2012). Real-time computer vision/DGPS-aided inertial navigation system for lane-level vehicle navigation. *IEEE Transactions on Intelligent Transportation Systems*, 13(2), 899-913.
4. Piller, I. (2017). *Intercultural communication: A critical introduction*. Edinburgh University Press.
5. Harris, K. (2017). *Teachers and classes: A Marxist analysis (Vol. 28)*. Routledge.
6. Gichina, M. B. (2010). Prevalence of herpes simplex virus in children Presenting with suspected meningitis and or Encephalitis at kenyatta National Hospital (Doctoral dissertation, University Of Nairobi).
7. Uwezo. (2016). *Are our children learning (2016)? Uwezo Kenya sixth learning assessment report*, December 2016.
8. Gichuki, J. K., & Moyi, E. D. (2013). *Monetary Conditions Index for Kenya*.
9. Pianta, R. C., DeCoster, J., Cabell, S., Burchinal, M., Hamre, B. K., Downer, J., ... & Howes, C. (2014). Dose-response relations between preschool teachers' exposure to components of professional development and increases in quality of their interactions with children. *Early Childhood Research Quarterly*, 29(4), 499-508.
10. Mugenda, O. M., & Mugenda, A. (2003). *G.(1999). Research Methods in Education*.
11. Burke, M., Hsiang, S. M., & Miguel, E. (2015). Global non-linear effect of temperature on economic production. *Nature*, 527(7577), 235-239.
12. Edwards, R., & Usher, R. (2002). *Postmodernism and education: Different voices, different worlds*. Routledge.
13. Tanner, P., Baumann, P., Enea, R., Onaca, O., Palivan, C., & Meier, W. (2011). Polymeric vesicles: from drug carriers to nanoreactors and artificial organelles. *Accounts of chemical research*, 44(10), 1039-1049.
14. Heschong, L. (1999). *Daylighting in Schools: An Investigation into the Relationship Between Daylighting and Human Performance*. Submitted by the Heschong Mahone Group to Pacific Gas and Electric, on behalf of the California Board for Energy Efficiency Third Party Program.
15. Alexander, D., & Lewis, L. (2014). *Condition of America's Public School Facilities: 2012-13*. First

- Look. NCES 2014-022. National Center for Education Statistics.
16. Benya, J. R. (2001). Lighting for Schools.
  17. Farrant, K. W. L., & Coehlo, K. (2003). Education and Exploration. POTTERY IN AUSTRALIA, 42(2), 58-59.
  18. Tivoli, B., & Banniza, S. (2007). Comparison of the epidemiology of ascochyta blights on grain legumes. In *Ascochyta blights of grain legumes* (pp. 59-76). Springer, Dordrecht.
  19. Gichina, M. B. (2010). Prevalence of herpes simplex virus in children Presenting with suspected meningitis and or Encephalitis at kenyatta National Hospital (Doctoral dissertation, University Of Nairobi).
  20. Ng'asike, J. T. (2012). Training of Science Teachers for Early Childhood and Primary Grades in Kenya. *New Zealand Journal of Teachers' Work*, 9(1).
  21. Klätte, M., Bergström, K., & Lachmann, T. (2013). Does noise affect learning? A short review on noise effects on cognitive performance in children. *Frontiers in psychology*, 4, 578.
  22. Woolner, P., Hall, E., Higgins, S., McCaughey, C., & Wall, K. (2007). A sound foundation? What we know about the impact of environments on learning and the implications for Building Schools for the Future. *Oxford review of education*, 33(1), 47-70.
  23. Evans, G. W., & Maxwell, L. (1997). Chronic noise exposure and reading deficits: The mediating effects of language acquisition. *Environment and Behavior*, 29(5), 638-656.
  24. Dockrell, J. E., & Shield, B. M. (2006). Acoustical barriers in classrooms: The impact of noise on performance in the classroom. *British Educational Research Journal*, 32(3), 509-525.
  25. Earthman, G. I. (2004). Prioritization of 31 criteria for school building adequacy.
  26. Allen, M. A., & Fischer, G. J. (1978). Ambient temperature effects on paired associate learning\*. *Ergonomics*, 21(2), 95-101.
  27. Schneider, M. (2002). Do School Facilities Affect Academic Outcomes?.
  28. Guardino, C., & Antia, S. D. (2012). Modifying the classroom environment to increase engagement and decrease disruption with students who are deaf or hard of hearing. *Journal of Deaf Studies and Deaf Education*, 17(4), 518-533.
  29. Burgess, B., & Kaya, N. (2007). Gender differences in student attitude for seating layout in college classrooms. *College Student Journal*, 41(4), 940-947.
  30. Cheryan, S., Ziegler, S. A., Plaut, V. C., & Meltzoff, A. N. (2014). Designing classrooms to maximize student achievement. *Policy Insights from the Behavioral and Brain Sciences*, 1(1), 4-12.
  31. Martin, D. (2002). Pentecostalism: The world their parish.
  32. Hastings, N., & Schwieso, J. (1995). Tasks and tables: The effects of seating arrangements on task engagement in primary classrooms. *Educational Research*, 37(3), 279-291.
  33. Wannarka, R., & Ruhl, K. (2008). Seating arrangements that promote positive academic and behavioural outcomes: A review of empirical research. *Support for learning*, 23(2), 89-93.
  34. Fisher, D. L. (1978). Functional literacy and the schools. National Institute of Education.
  35. Creswell, J. D., & Lindsay, E. K. (2014). How does mindfulness training affect health? A mindfulness stress buffering account. *Current Directions in Psychological Science*, 23(6), 401-407.
  36. Striker, S., & Kimmel, E. (2001). *The First Anti-Coloring Book: Creative Activities for Ages 6 and Up*. Macmillan.
  37. Chepkonga, M. C. (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.
  38. Okudo, A. R., & Omotuyole, C. (2014). Enhanced Learning Environment and Its Implications on the Pre-School Children's Language Performance. *European Scientific Journal*, 10(7).
  39. Ajayi, I., & Osalusi, F. (2013). Mass Failure of Students in West African Senior School Certificate Examinations (WASSCE) in Nigeria: The Teachers' Perspective. *International Journal of Case Studies*, 2(4), 01-05.
  40. Liwakala, P. C. (2003). Inclusive Schooling in Enabling Education Network (EENET)(2003) Researching our experience: a collection of writing by teachers in Mpika Zambia.
  41. Malunga, C. W. (2007). Improving the effectiveness of strategic planning in local NGOs in Malawi (Doctoral dissertation, University of South Africa).
  42. Ademokoya, J. A. (2008). Classroom communication and placement of the deaf child in an inclusive class. *Journal of Human Ecology*, 23(3), 203-209.
  43. Adams, E. (2006). Drawing attractions: a comprehensive store of ideas, reports, explanations and strategies for using drawing as a means of engaging people with heritage and can be used by educators in a wide range of environments and cultural settings. Campaign for Drawing.
  44. Brooks, N. (2003). Vulnerability, risk and adaptation: A conceptual framework. Tyndall Centre for climate change research working paper, 38(38), 1-16.
  45. Lippman, P. C. (2010). Evidence-based design of elementary and secondary schools: A responsive

- approach to creating learning environments. John Wiley & Sons.
46. Karsenti, T. (2016). The interactive whiteboard: Uses, benefits, and challenges. A survey of 11,683 students and 1,131 teachers. *Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie*, 42(5).
47. Davis, B. G. (2009). *Tools for teaching*. John Wiley & Sons.
48. Lyster, R. (2017). *Content-based language teaching*. Routledge.
49. Nair, H., Nokes, D. J., Gessner, B. D., Dherani, M., Madhi, S. A., Singleton, R. J., ... & Campbell, H. (2010). Global burden of acute lower respiratory infections due to respiratory syncytial virus in young children: a systematic review and meta-analysis. *The Lancet*, 375(9725), 1545-1555.
50. Eliot, T. S. (2006). *The Annotated Waste Land with Eliot's Contemporary Prose*. Yale University Press.