THE LITERACY LEARNING ENVIRONMENT AND LITERACY SKILLS DEVELOPMENT OF LOWER PRIMARY CHILDREN: A CASE OF NAKAWA DIVISION, KAMPALA CITY COUNCIL AUTHORITY

BY

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A RESEARCH DISSERTATION SUBMITTED TO KYAMBOGO UNIVERSITY GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTER OF EDUCATION –IN EARLY CHILDHOOD EDUCATION OF KYAMBOGO UNIVERSITY

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DECLARATION

I, Kabasinguzi Dorothy declare that this proposal titled "Literacy learning environment and Literacy skills development in lower primary, a case of Nakawa Division is my original work which has never been submitted to any institution for any award. I am now submitting it to the faculty of education graduate board of Kyambogo University with the approval of my supervisors

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APPROVAL

This research proposal titled "Literacy Learning Environment and Literacy Skills Development in Lower Primary". A Case of Nakawa Division, Kampala City Council Authority. By Dorothy Kabasinguzi developed with our guidance and it is now submitted for examination with our consent as supervisors.

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DEDICATION

This dissertation proposal is dedicated to my husband Mr. James Kabuza Bakubye and my children Timothy, Samuel, Daniel and Bethel.

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The production of this research proposal was successful through the efforts of several people.

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ACRONYMS

CLASS : Classroom Assessment Scoring System

PLE : Primary Leaving Examinations

UNEB : Uganda National Examinations Board

KCCA : Kampala City Council Authority

MOES : Ministry of Education and Sports

NAPE : National Assessment of Progress in Education

UWEZO : Kiswahili word meaning ability

UNESCO : United Nations Educational Scientific Cultural Organisation

UNICEF : United Nations International Children Education Fund

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ABSTRACT

Literacy is fundamental to all areas of learning as it unlocks access to the wider curriculum. Any basic education to be regarded good quality should be able to equip the pupils with literacy development for life and further learning. High levels of literacy skills lead to great awareness and help people acquire new skills. In Kampala City Council, 7 out of 10 children between primary 3 and primary 7 can read a primary 2 level story UWEZO (2012). This study focused on literacy learning environment and literacy skills development of lower primary children. The objectives of the study included: to determine the relationship between the physical literacy learning environment and children's literacy skills development in lower primary, to examine the relationship between the social literacy learning environment and children's literacy skills development in lower primary, and to assess the relationship between the temporal literacy learning environment and children's literacy skills development in lower primary. The study used a correlation research design. Data was collected using observation, interviews and document analysis from a total of 324 participants which included; 24 teachers, 60 parents and 240 children. Data was analyzed using descriptive statistics and Pearson correlation.The study found that there is a statistically significant relationship between the physical literacy learning environment and children's literacy skills in Nakawa Division where $r=.537$, $p<0.05$ level of significance. There was also a statistically significant relationship between the social literacy learning environment and children's literacy skills in lower primary where $r=.471$, $p<0.05$ level of significance. There was a statistically significant relationship between the temporal literacy learning environment and children's literacy skills In lower primary in Nakawa Division where $r=.139$, $p=0.05$ level of significance This study is significant because it provides an insight to all education stake holders about the importance of the literacy learning environment to children's literacy development which can lead to the improvement of literacy performance in schools.

CHAPTER ONE

INTRODUCTION

1.0 Background to the study

1.1 Historical Perspective

Literacy is very important to both adults and younger children across the globe. Indeed, any basic education to be regarded as good quality should be able to equip the pupils with literacy development for life and further and everyone has a right to education according to the Constitution of Uganda, Laws of the Republic of Uganda (2000). Literacy greatly contributes to the improvement in the quality of life of a population, particularly with regard to life expectancy, infant mortality, learning levels and nutritional levels of children.

UNESCO, (2000) shows that although the global literacy rate has increased significantly over the years, literacy development is still low among the young children in most developing countries. The claimed increase in literacy does not take into consideration the rapid world population growth. The statistics also show that the increase is mostly concentrated in developed   countries, yet there is fast growing population in developing nations. This analysis calls for all stakeholders in the sub-Saharan region to get involved if the illiteracy trend is to be reversed.

In Uganda, formal literacy development and assessment started with formal education which was introduced by voluntary organizations before the real beginning of colonization Ssekamwa, (2001). The voluntary group came to Uganda to spread Christianity, but they found societies in Uganda illiterate. The first task was to help Ugandans to read, write and do Arithmetic. However, many Ugandans did not embrace it since it was meant for a few groups.

After independence, the government appointed a commission called the castle commission in 1963. Since education had been accessed by a few Ugandans, the castle commission came up with strong emphasis on quality of education for all. Although the

concept of literacy was not under pinned, the education for all was highly intended for developing a literate society. From then onwards, literacy was emphasized in order to achieve personal and political liberation, and as a tool for development.

The government of Uganda attaches great importance to the improvement of education services and the constitution of Uganda stipulates that education is a fundament right for every citizen. In 1986, a series of commissions to investigate the education situation in the country were put in place. An education commission known as the Education policy Review Commission (EPRC) set a genesis for the Universal Primary Education (UPE) in Uganda. In 1997, UPE was put in place with emphasis on enabling the children to access education. The UPE policy however has been operating with various challenges mostly notably low literacy levels among the UPE graduates.

Since the implementation of UPE, various studies have been carried out to address the low literacy outcomes among primary graduates in Uganda. Notably among them are; National Assessment of Progress in Education (NAPE), UWEZO (a Swahili word meaning 'we can'). These have continuously painted a worrying picture about the children's reading skills. According to NAPE, (2014) Literacy in English was rated at 36.3%, this is the percentage of pupils proved capable of naming objects, and 27.3% of the pupils were able to read and describe activities in a picture. UWEZO,(2012) reported that only one out of every ten children assessed in primary 3 was able to read a primary 2 level story. The best way to turn this unpleasant literacy statistic among school going children is by taking into consideration the literacy learning environment.

Research shows that the literacy classroom environment promotes literacy skills and improves children's academic performance.Snow, Barnes, Chandler, Goodman, &Hemphill, (1991) found that classroom that provided access to challenging and stimulating literacy materials—including basils, workbooks, dictionaries and other reference materials, trade

books that represented a wide range of difficulty levels, and frequent visits to the library—were linked to measures of vocabulary growth.

1.1.2 Theoretical Perspective

The theory that guided the study is the social learning theory by Lev Vygotsky. It states that we learn through our interactions and communications with others. This study also looked at various theories in support of a rich literacy learning environment to enhance learning. According to the cognitive learning theory, children need to explore, manipulate, experiment, question and to search for answers by themselves. Thus, class design should create a sphere which stimulates curiosity for exploration; classes should provide opportunities for the students to interact with each other Akinsanmi, (2008). Learning is much more meaningful if the child is allowed to experiment on his own rather than listening to the teacher's instruction hence the need for places for individual and group studies. The constructivist learning theory states that learning is a process of constructing knowledge rather than acquiring it. The theory proposes that, classrooms can be designed as articulated spaces where children can study by themselves or within a group, because students sometimes need places to be alone for interpersonal intelligence and sometimes for active social interaction for interpersonal intelligence. If we are able to improve the literacy learning environment will it improve the literacy levels? the best way to find out about this it by doing this study.

1.1.3 Conceptual Perspective

This section explains the key concepts that are essential to the study.

UNICEF, (2011) defines a child as a person under the age of the 18. This study also defines a child as a person below 18 years. This has been selected since it is the exact age in the 1995 constitution of Uganda. For operational purposes a child in this research is a person

between 6 and 8 years because the study used data of children in primary one and primary three.

Many educators have differing opinions on how to define literacy. Often, literacy is viewed as the ability to read and write, in essence, the knowledge of letters and sounds and how people express themselves. The National literacy trust however includes reference to speaking and listening in its definition of literacy. According to this study, literacy means the ability identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts (UNESCO).

The term learning environment for example, is often used as a more accurate or preferred alternative to the classroom, which has more limited and traditional connotation- a room with rows of desks and a chalkboard. The literacy learning environment in this study is used to mean how individuals interact with and treat one another as well as the ways in which teachers may organize an educational setting to facilitate learning by grouping desks in specific ways, decorating the walls with learning materials, or utilising audio, visual technologies.

1.1.4 Contextual Perspective

The study was conducted in Nakawa division located east of Kampala and is one of the five urban councils that make up Kampala city. Whilst many studies have been conducted in Uganda about the learning environment Opolot, (2010), there is none that concerns the literacy learning environment and children's literacy skills and this is the gap this study sought to fill.The content of this study was limited to, establishing how the literacy learning environment is influencing children's literacy skills development in lower primary. Specifically, it will determine the relationship between the physical literacy learning environment and children's literacy skills development examine the relationship between the social literacy learning environment and children's literacy development skills and assess the

relationship between the temporal literacy learning environment and children's literacy development skills.

1.2 Statement of the problem

Research conducted by the National Reading Panel (NRP) found that skills in phonemic awareness, phonics, fluency, vocabulary and comprehension are essential to literacy development and can be developed by having a rich literacy learning environment NRP (2001). A good literacy learning environment stimulates students to participate in language and literacy activities as materials in the class act as motivators for reading. Dorrell, (2002). Teachers should design the environment by organizing its spaces, furnishings and materials to maximize the learning opportunities and engagement of each child. Reading books should be at different reading levels or creating ample space where children can work independently or in small groups. Library corners need to be in the central part of the classroom with comfortable furniture that encourages children to read by themselves. When teachers build optimal literacy environments, children's success in literacy development can be expected.

However, according to NAPE, (2014) the literacy learning environment in Nakawa is characterized by inadequate appropriate readers, lack of appropriate displays in some schools, pupils' limited practice and exposure to suitable literacy materials, inconsistent routines for literacy activities since lessons for teaching literacy are used to teach something else and this has affected literacy levels in Kampala City Council .Findings according to NAPE, (2014) show that in Kampala, P.3 pupils have a proficiency level of 71.1%, leaving 28.9% not proficient and this is no exception of the Nakawa Division since it is found in Kampala City Council.

Studies were done on the learning environment for example, a study done by Opolot, (2010) focused on the classroom learning environment and motivation of students in Uganda

but did not focus on the literacy skills development in lower primary. Another study by Kigenyi, (2017) focused on school environment and performance of public primary teachers in Uganda but did not focus on the literacy learning environment and children's literacy skills development in lower primary schools. Another study by Fisher, (2008) investigated on the effect of the physical classroom environment on literacy outcomes but did not focus on the literacy learning environment and literacy skills development. This study was conducted, to give an insight on the need to promote the literacy learning environment in schools so as to improve literacy levels in all regions in the country.

1.3 Purpose of the study

The purpose of the study was to establish how the literacy learning environment is influencing literacy skills development of children in lower primary.

1.3.1 Objectives of the study

The specific objectives that guided the study are as stated below;

a) To determine the relationship between the physical literacy learning environment and children's literacy skills development in lower primary.

b) To examine the relationship between the social literacy learning environment and children's literacy skills development in lower primary.

c) To assess the relationship between the temporal literacy learning environment and children's literacy skills development in lower primary.

1.4 Research Question

Part of this study was guided by the following research question:

1. What are the views of the teachers' parents and children in the physical, social and temporal literacy learning environments in classrooms?

1.5 Research Hypothesis

The research hypothesis that directed the study included;

1. There is no statistically significant relationship between the physical literacy learning environment and children's literacy skills development in private and government aided lower primary classes at the 0.05 level of significance.

2. There is no statistically significant relationship between the social literacy learning environment and children's literacy skills development in lower primary classes at the 0.05 level of significance.

3. There is no statistically significant relationship between the temporal literacy learning environment and children's literacy skills development in lower primary at the 0.05 level of significance.

1.6 Scope of the study

1.6 .1 Geographical Scope

Located east of Kampala, Nakawa division is one of the five urban councils that make up Kampala city.

1.6 .2 Time Scope

The findings of this study will still be valid and not over taken by events until 2025.

1.7 Significance of the study

This study focused on class literacy learning environment and children's literacy skills development in lower primary. The study sought to justify that Literacy learning environment improves lower primary children's literacy skills. This will in turn provide school administrators, teachers and other stakeholders with strategies to enhance classroom literacy environment to improve children's literacy abilities. The findings will be useful to

school administrators, teachers, and policymakers as they work collaboratively to improve the reading achievement levels of children in government aided schools.

In addition, the findings will help school leaders to be better informed meeting the needs of lower primary children as they plan, write and implement their respective school improvement plans. The data will also assist in adding to the body of knowledge of all stakeholders who educate lower primary children.

1.8 Limitation and Delimitation
Limitations

The study was conducted in selected government aided and private schools focusing on lower primary classes in Nakawa Division, which is one of the divisions in Kampala City Council Authority so my findings are not generalized to other places and schools.

Delimitations

This study focused on the literacy learning environment in lower primary classes and other literacy environments like the home environment, school environment and outdoor environment was not considered in this study.

1.9. The Theoretical and conceptual framework

1.9.1 Theoretical frame work

The theory that guided the study is the social learning theory by Lev Vygotsky. It states that we learn through our interactions and communications with others. He suggested that learning takes place through the interactions, students have with their peers, teachers and other experts. He emphasizes that teachers can create a learning environment that maximizes the learner's ability to interact with each other through discussion, collaboration and feedback. In essence, Vygotsky recognizes that learning always occurs and cannot be separated from a social context. Consequently, instructional strategies that promote the

distribution of expert knowledge where students collaboratively work together to conduct research, share their results, and perform or produce a final project, help to create a collaborative community of learners. Knowledge construction occurs within Vygotsky's, (1962) social context that involves student-student and expert-student collaboration on real world problems or tasks that build on each person's language, skills, and experience shaped by each individual's culture Vygotsky, (1978, p. 102).

If the Literacy Learning Environment is conducive then learning becomes easy and literacy skills of children will be developed faster.

1.9.2 Conceptual Framework

Learning Environment

Physical Environment
- Literacy Materials
- Literacy Activities
- Class Arrangement/ Setup

Social Environment
- Teacher
- Peer- Peer Interactions

Temporal Environment
- Timing
- Sequence
- Routine

Early childhood Environments

Literacy Skills

- Phonological Awareness
- Alphabetic Principal
- Vocabulary Development
- Fluency
- Comprehension

Parental Involvement

Source: Primary Data

Figure 1: 1.9.2: The Conceptual framework of Class literacy learning environment and Literacy Skills Development of Children.

The conceptual framework in Fig 1.9.2 shows class literacy environment as an independent variable where teachers plan rich literacy activities, organize appropriate literacy materials, arrange the class in a child friendly environment and promote positive social interaction between children . These are conceived important to enhancing the dependent variable which is literacy skills and the literacy skills used in this study are vocabulary, fluency and comprehension skills. In order to achieve these, intervening variables like parental involvement had to be kept under control.

1.10 Definitions of Key Terms

In this section, I define the key terms as used in my study.

Literacy learning environment:

This is defined as environments that emphasize the importance of speaking, reading and writing in the learning of all students. It involves the selection of materials that will facilitate language and literacy opportunities, reflection and thought regarding class design and intentional instruction and facilitation by teachers.

Physical literacy environment

This is defined as the overall design and layout of a given classroom and its learning centers. Teachers should design the environment by organizing its spaces, furnishings, and materials to maximize the learning opportunities and the engagement of every child

Social literacy environment

The way that a classroom environment influences or supports the interactions that occurs among young children and teachers. A well-designed social environment helps foster positive peer relationships, creates positive interactions between adults and children, and provides opportunities for adults to support children to achieve their social goals.

Temporal literacy environment

The term refers to the timing, sequence, and length of routines and activities that take place throughout the school day. It includes the schedule of activities such as arrival, playtime, meal time, rest time, both small- and large-group activities, and the many transitions that hold them all together. Predictable schedules and routines create a sense of security, help young children to learn about their world, help them to adjust to new situations, and prevent challenging behaviors.

Literacy skills

Literacy skills are all the skills needed for reading and writing. They include such things as awareness of the sounds of language, awareness of print, and the relationship between letters and sounds. Other literacy skills include vocabulary, spelling, and comprehension. Here are some simple definitions of some of the skills contained within the larger concept of literacy. These include, but not limited to.

Phonemic awareness

Phonemic awareness (awareness of sounds) is the ability to hear and play with the individual sounds of language, to create new words using those sounds in different ways.

Vocabulary

Children learning to read typically have two kinds of vocabulary, which is the collection of all the words a person knows and uses in conversation. An active vocabulary includes words a person uses regularly in speech and writing. Words in the active vocabulary are those which a person can define and use in context. The words in a passive vocabulary are those which a person knows, but who is meaning he may have interpreted through context.

Reading comprehension

If a child can read and understand the meaning of something he reads, he's said to have reading comprehension. More than just being able to read the words, reading comprehension includes the ability to draw inferences and identify patterns and clues in a text. For instance, if a child is reading about a person who decides to carry an umbrella, the child can infer that the person is expecting rain, or that rain may factor into the story somehow.

Literacy learning activities

Events that occur daily in homes, classrooms and other locations that provides opportunities for early literacy learning. They should be interest based, happen frequently, and provide opportunities/ for language learning and the acquisition and use of literacy abilities.

Class arrangement/ set up

It entails arranging a practical layout, supplying diverse materials and supplies and encouraging students to have a sense of belonging and ownership.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In order to figure out a connection between the literacy learning environment and children's literacy skills, it was necessary to reconsider literature about the physical, social and temporal learning environments and literacy skills development among children. The literature was presented under the three research objectives. The learning environment is often called the third teacher, which is why it is a valuable aspect to help children develop language and literacy skills. The literacy skills of interest in this study are phonological awareness, alphabetic principle, vocabulary development, fluency and comprehension.

2.1 The literacy learning environment

A study by Dowhower, (1998) found that the environment adds a significant dimension to a student's educational experience by engaging interest, offering information, stimulating the use of skills. The literacy-rich environment emphasizes the importance of speaking, reading, and writing in the learning of all students. This involves the selection of materials that will facilitate language and literacy opportunities reflection and thought regarding classroom design, and intentional instruction and facilitation by teachers and staff Burns, Griffin& Snow, (1999). Because literacy environments can be individualized to meet students' needs, teachers are able to create both independent and directed activities to enhance understanding of the concepts of print and word, linguistic and phonemic awareness, and vocabulary development. All of this occurs in a concrete setting giving students multiple opportunities to gain the skills necessary to participate in the general education curriculum

The Literacy learning environment in the early years is one of the most important instructional teaching tools a teacher can use. The Literacy learning environment is one of the ways teachers create dynamic learning experiences and opportunities to talk. They are

sometimes described as being full of print. Printed labels are posted on doors, windows, bookcases, while books, magazines and other print materials are plentiful.

Roskos, (1994) stated that, creating a literacy rich environment requires more than simply "littering" the places where children play with print. The literacy learning environment must be carefully planned by informed adults. They must also address both social and physical dimensions of the environment

2.2 Relationship between the physical literacy learning environment and children's literacy skills development.

In a physical literacy environment, there are many opportunities for children to see how print is used for many purposes. Print and language become a functional part of daily play and practice.

Ault, Hemmeter, Maxwell, and Schuster, (2001) define the physical literacy learning environment as the room arrangement, materials, equipment, space, display of children's work, elements of design and physical design of the room. Previous findings demonstrated that the physical literacy learning environment and its elements is directly linked to numerous outcomes for students which include social and academic learning and skill development Bredekamp & Copple, (2009), Cunningham &Miller (2009), DeVries, (2012).

According to the working document (2016), in a physical literacy learning environment you will find a selection of materials that engage children's interest in exploration, children's work and products displayed in the classroom, libraries with age appropriate books displayed attractively, writing and text materials available in many different parts of the room, labels on key objects in the classroom as well as alphabet manipulates

According to Aydogan, Farran, Kang and Lipsey, (2006), research showed that physical literacy environments vary widely in amount of reading materials and the

engagement with them. The availability of print resources can serve to promote children's literacy behaviors in addition to instructional use of the materials by the teachers.

However, a study by Akrofi, (2003) stated that in sub-Saharan Africa countries were materials to promote literacy have been supplied, teachers had not yet included these into teaching practice. Teachers were reluctant to lend story books to children for fear of damage and this hinders children's exposure to print hence affecting their literacy levels.

Classroom resources were found to be strongly associated with student learning achievement in Kenya. For example, the odds of a pupil having the ability to read a simple short story were reduced almost 40% if that pupil attended a school that lacked basic classroom resources, such as desks, chairs, textbooks and pencils, and basic instructional materials. Uwezo, (2012).

Many researchers have found that the inclusion of a library center or 'book nook' in the classroom increases children's literacy behaviors. A study by Morrow, (1991) noted that children in classrooms with literature collections read and looked at books 50% more often those children in classrooms without such collections. The Library center should be well defined, but in location for the children to have privacy to explore the books. Not only should books be shelved so that the spines are showing, but also so that the covers are visible to attract the attention of the children. This will allow the children to read independently as well as the assistance of an adult.

Morrow and Weinstein, (1982) urged that, children do not choose to use barren and uninviting' library corners during free time for play. As cited in Vukelich, and Christie, (2002). The physical features of a library centre that will engage children include ample space, book related displays and props and labels thought the centre.

According to Maxwell, (2007) the design of the physical literacy learning environment need to promote effective learning and create opportunities to learn. Children

spend most of their time in the classroom and this environment can directly affect students, therefore the quality of the physical literacy learning environment is very important.

However, according to UNESCO in a report School resources and learning environment in Africa, (2016) globally, Africa is home to more than half of out of school children of primary age (6-11 years) and poor infrastructure and low quality of education have been identified as important barriers for schooling and learning.

According to Curtis and Carter, (2005) literacy learning space need to be flexible with furniture and offer a play area at different angles and levels and designing the space to read and space to do literacy activities actively. The physical literacy environment is thought to influence children's motivation for and engagement in reading. School resources, such as well-equipped libraries, may promote interest in reading and help bridge the gap between more and less advantaged peers Luisa and Patrica, (2012).

It should be noted that in most countries, students still have to share reading books. There is on average 1 reading book for 2 students or more in Sub-Saharan Africa yet textbooks are one of the educational inputs that have the greatest influence of learning achievement. UNESCO report School resources and learning environment in Africa, (2016).

Research has found links between literacy learning materials and student reading outcomes. For example, Cheung, KamTse, Lam and Ka Yee Loh (2009) found that in Hong Kong teachers instructional materials and choice of reading materials were related to students reading achievement.

According to Martin, (2013), a school's emphasis on reading skills and adequate resources contribute positively to boosting student achievement. Appropriate physical literacy facilities like library corners, reading and writing centres will stimulate intellectual activity, improve social relationships and promote student learning and development as well as limiting the negative behaviour among students Arzi, (2003).

There are numerous classroom materials that help build a physical literacy environment. By integrating phone books, menus, and other written materials into student play, children are able to see the connections between the written word and spoken language, as well as to understand how written language is used in real world situations. By creating a literacy-rich environment for students, teachers are giving students the opportunities and skills necessary for growth in literacy development. Through exposure to written language (e.g., storybook reading and daily living routines) many children develop an awareness of print, letter naming, and phonemic awareness.

A physical literacy learning environment puts into consideration the arrangement of furnishings and floor coverings. A well-designed physical environment has different activity areas with clear, physical, and visual boundaries, defined by the furnishings and floor coverings. These furnishings and floor coverings should create spaces that are comfortable and that lend themselves to their intended purpose. For example, a block area might have bookshelves set it off as a block center, and carpeting or foam flooring to muffle the sound when the blocks fall on the floor. Also, the library area should have a soft, comfortable floor covering for young children and adults to sit on while they look at the books.

In relation to literacy classroom materials, the intentional selection and use of materials is central to the development of the literacy-rich environment. Teachers ensure that students have access to a variety of resources by providing many choices. Teaching staff connects   literacy to all elements of classroom life. Teaching staff alternate books in the classroom library to maintain students' interest and expose them to various genres and ideas For example, teachers should include both fiction and nonfiction literature. The key to planning and implementing a language rich environment is to permeate the room with rich child-adult interactions. However, it is recognized that this depends on the physical environment, which then reflects the richness and diversity of the language that teachers and

children use. The function of the physical environment in a free play setting plays a major role in supporting the literacy development of the child's literacy experience.

The physical literacy environment has the power to influence the quality and quantity of the child's oral and written language experiences. The room should be organized to include open space and also specific areas. Justice, (2004) suggested that these specific areas should be clearly identified throughout the room (e.g. library area, writing centre, and dramatic play area). What's more, these boundaries must be evident in children.

All children benefit when the environment is set up in such a way that it encourages literacy and supports practices. Within the physical literacy environment, there should be a variety of materials and props provided Johnson, (2003); Pullen & Justice, (2003). A literacy enriched play environment also exposes children to valuable print experiences and lets them practice narrative skills.

We should note that, when literacy materials such as environmental print and props are included in the play environment, the amount of literacy activity children engaged in during play increases significantly. An example of this is where oral, reading and writing behaviors became more purposeful (e.g. in a restaurant setting, a menu, a reservation book, plays money). Such experiences should aim to empower children through building on their past knowledge, to then learn, use, and develop their literary skills.

According to Aldejana and Adenbigbe in Journal Science Educational Technology, (Vol 16), there's a relationship between the physical structure of the classroom, such as room organization, size of space, lighting and table arrangement, and psychological aspects, such as interaction among the students. The way in which the physical aspect is organized can limit or encourage interaction that takes place in the classroom.

Callahan, (2004) states that the physical literacy learning environment plays an important role in the learning process. In addition Nurul, Maimunah and Mohd, (2011), state

that the physical literacy learning environment can affect student's attendance and achievement in schools. In fact, Tanner, (2009), found that the physical literacy learning environment can affect students' affective, behavioral and cognitive abilities.

Thus, it is clear that the physical literacy learning environment should be planned well because it reflects the ideas, values, behavior that are expected in the room and promotes development of children's literacy skills Sanoff, (2000).

2.3 Relationship between the social literacy learning environment and children's literacy skills development.

The term social literacy learning environment refers to the way that a classroom environment influences or supports the interactions that occur among young children, teachers. A well-designed social environment helps foster positive peer relationships, creates positive interactions between adults and children, and provides opportunities for adults to support children to achieve their social goals. To create a classroom environment that supports positive social interactions, teachers need to plan activities that take the following aspects into consideration.

In order for learning to occur, there must be an interaction between the teacher, the child and the environment. A study by Molfese, (2003) found that cognitive development in influenced by transactional relations between the child and different experiential factors in his or her environment.

Vygotsky, (1978) claimed that learning is enhanced by a more knowledgeable other. As part of a social constructivist theory, teachers scaffold or assist children's performance by modeling the types of responses expected to particular questions with the goal that children will eventually respond using such responses themselves.

Bloom, (1997) confirmed that Vygotsky believed that interaction between adults and children creates knowledge. The teacher makes suggestions and models correct ways to use the literacy props in the classroom. From the suggestions made by the teacher, the child will

be able to expand and guide their own learning use of materials in the environment. Leseman and VanTuiji, (2006)

Gregory, (2001) stated that, teachers, support children's understanding of text by rephrasing and explaining the text meaning and sequence of events. Older children sometimes assume responsibility for reading to children, which exposes young children to a function of print, new vocabulary as well as question- answer patterns.

Group size is another factor that influences children's comprehension of text, as shown in a study by Hansen, (2004). Children, who were the quietest in large group discussions, were most often the most vocal in small group dialogue which gave more opportunity for their voices to be heard.

Children should spend time every day in different kinds of groups. Groups of various sizes open up different opportunities for social interaction and learning. Activities suited to large groups include opening group circle time, story time, meal times, and outside time. Small groups allow more time for interaction with individual children and are ideal for teaching new skills and providing feedback. Additionally, small groups offer more opportunities for children to practice their language skills and for teachers to facilitate children's communication development.

It is widely accepted the optimal learning environment allows room for movement, smooth transitions, rearrangement and mobility of furniture, and areas for both large and small group activities Taylor, (2008). Well defined learning spaces have been linked to more exploratory behaviours, social interaction, and cooperation Taylor, (2008).

Groups can either be made up of children with similar skills and abilities that is homogenous groups or mixed abilities. Homogenous groups are ideal for teaching targeted skills or skills that meet the particular needs of a subset of children. Conversely, groups that include children with diverse skills and abilities provide opportunities for all children to learn

positive social skills and communication skills from their peers. In this way, all children contribute to the classroom culture while also receiving the support they need to interact with their peers and teachers in meaningful ways.

Findings in Kenya should that students that had to sit squeezed at their desks or sit on the floor during class were 18% less likely to pass the UWEZO basic literacy tests than their peers in better resourced schools. UWEZO, (2012).Research showed that when adults purposefully talk more with children using longer and more complex words, children develop larger and more robust vocabularies. (Hart & Risley, 1998; Hof f & Naigles, 2002). (Ensor& Hughes 2008; Harris 2005) added that, when adults talk with children in a responsive and sensitive way, they encourage children's social and emotional development. Research showed that when adults explain and ask questions about words and concepts in a story book, children learn more about those words and concepts then when adults only read the story book. (Beck & McKeown, 2001). Likewise, studies showed that when teachers explicitly teach about listening for and hearing the sounds of words using a developmental sequence, children are better at phonemic awareness and decoding then when instruction is general. Torgeson , (2001).

Lawhon, (2000) also argued that teachers foster language growth by talking, reading and playing with children. The teacher's presence serves as a link between the child and the environment. He states that positive nurturing techniques are important for toddlers and preschool children they help the child feel secure while developing vocabulary, listening skills and other growth patterns essential for pre- reading and writing skills.

Research has indicated that when an adult and one child read a children's story together, the child comprehends more of the story than when the child is part of a group listening to a book being read Wasik, (2001). These researchers also found that when an adult reads to a child, it leads to greater vocabulary retention, especially when the adult asks the

child about the story using open-ended questions. Roberts, (2005) added that, reading to children, providing books and writing materials, and talking to children about letters and writing are all experiences that encourage the development of print awareness and the importance of written language.

Research showed that background knowledge is critical when understanding the text. However, supporting children's comprehension is more difficult than first thought (Beck &Keown, 2001). Children tend to ignore the text information and respond to the pictures to explore the meaning. The challenge then for teachers is to follow up on children's initial responses through creating thoughtful open-ended questions to support their construction of meaning. Therefore the effectiveness of the read aloud time and children's literacy development, to some extent depends on the professional knowledge of the teacher.

It is critical for teachers to have professional knowledge concerning phonological awareness as a further emergent language skill. Research has shown that phonology plays a critical role in the acquisition of reading. Given what is known about the importance of phonological awareness (Pullen and Justice, 2003; Bowman, Gambrell, Hansen and Treiman, 2004); it would appear that everyday activities play an important role in acquiring these skills. Through the teachers having some understanding of these concepts, the children are then encouraged to play with and explore the sounds of language and of spoken words through, action rhymes, poetry, songs, and finger plays.

Research has shown that if both props and adults are introduced into dramatic play, then the level of print awareness increases (Pullen & Justice, 2003). A case study by Cruikshank, (2001) demonstrates this key concept that children can actually write sooner than previously thought. She has documented that children who are motivated and who are exposed to rich literacy environments, can develop the ability and mechanics of personal

storytelling. However the challenge for teachers is to find activities to extend the children's imagination and then leave the control with the learner.

Wilcom, (2001) states that, children serve as peer models for each other, providing relevant examples and meaningful feedback. When children interact with their peers, they develop language skills and this lays a foundation for the development of important social skills that enable children to build secure relationships with others.

According to Cano,(2001) research studies showed that the effects of teacher interaction with learners and found that, the degree and frequency of praise, use of classroom time, and the amount of attention given to groups or individuals have a significant positive correlation to a learner's ability to learn.

2.4 Relationship between the temporal literacy learning environment and literacy skills development.

The term temporal learning environment referred to the timing, sequence, and length of routines and activities that take place throughout the school day. It included the schedule of activities such as arrival, playtime, mealtime, rest time, both small- and large-group activities, and the many transitions that hold them all together.

Predictable schedules and routines create a sense of security, help young children to learn about their world, help them to adjust to new situations, and prevent challenging behaviors. Daily routines also help young children to say good-bye to parents and to feel safe and secure within a nurturing network of caregivers. For example, establishing the routine of reading a book together every day in the same cozy corner of the room can help a child to prepare for the difficult separation from her parent.

Providing consistent routines were recommended by various educators (DeBruin & Parecki, 2008; McCromick, Loeb, & Schiefelbusch, 2003) for a routine permits children to blend in with the rest of the class without needing to communicate directly to their peers or

teacher (Tabors, 2008). Consistent routines permit the children to focus on the language being used and on subject content being presented instead of trying to determine what is happening around them (De Atiles & Allexsaht, 2002).

It is the teacher's responsibility to encourage the child to take a collaborative approach and an active role in shared reading. In a recent survey (Huffman, Roser, & Battle, 1993 as cited in Hansen, 2004) found that while teachers planned for read aloud time, the frequency and quality time of reading aloud, varied. Hansen, (2004) drew on Rosemary and Roskos, (2002) to suggest that, even when reading aloud was scheduled for a regular time and quality literature was selected, it was the meaningful conversation following the story which encouraged and promoted literacy development.

Further research, Elkind, (1986) & Miller (1994) cited in Nel, (2000); (Pullen & Justice, 2003) suggested that structured lessons are inappropriate for preschoolers and instead advocated that young children learn best when they can choose their own activities, Hence child-initiated, rather than teacher-directed play provides for an informal opportunity intended for supporting children's literacy learning, through children engaging at their own level in ways that are meaningful to them. This allows for the differing levels of literacy development that children come with, through its open ended nature of such areas as exploring, negotiating, and manipulating without the risk of failure.

Planning should also include a daily reading aloud experience. This presents children opportunities to interact with such texts as fiction, and non-fiction. The most valuable part of the read aloud may be that children are given the opportunity to talk through ideas, emotions, concerns and reactions beyond their immediate experiences. Repeated reading of favorite books and playing with literary language builds familiarity, increasing the likelihood that the children will attempt to read these books alone. Hansen, (2004), draws on Wells (1986) and suggested that such activities provide the foundation for the rhythm and structure of written

language. Moreover the availability of reading electronic storybooks, in which print is made prominent, appears to help children internalize understanding of print concepts and features (DeJong& Bus, 2002 as cited in Pullen & Justice 2003).

Shalaway, (2018) stated that, routines are the backbone of daily classroom life. They facilitate teaching and learning, she noted that, routines don't just make your life easier they save valuable classroom time. When routines and procedures are carefully taught, modeled and established in the classroom, children know what's expected of them and how to do certain things on their own. Having these predictable patterns in place allows teachers to spend time in meaningful instruction.

A learning environment's daily routine should include both teacher-initiated and child-initiated activities. Teacher-initiated activities are those that the teacher plans and leads, such as story time or a small-group learning activity. Generally, a child-initiated activity is one that allows children to follow their interests and explore their passions.

The temporal learning environment also entails effective transitions from one activity to another. Transitions are an essential part of every classroom schedule. Handled well, they provide children with the opportunity to be successful, manage their own materials, and demonstrate their capabilities. When managed poorly, however, they can become a time of chaos, increasing problem behavior and leading to greater stress for the teacher and children alike. Smooth transitions can appear almost effortless, but experienced teachers know they require planning and attention to detail.

Children need to be taught the routines and schedules and what they are expected to do during activities and during transitions. Clear expectations help children know how to participate in all classroom activities in a more meaningful way and decrease the likelihood of challenging behaviors.

A predictable daily schedule of activities was recommended (Kostelni, Soderman, &Whiren, 2007). The authors suggested a predictable schedule helped with transitions from one activity to another and provides a sense of continuity from day to day. Any changes to the daily routine should be communicated to the children as a means of helping them prepare for the change.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter outlined the methodology describing how the study was conducted. It included the study design, area of the study, study population, sampling techniques and procedures, data collection methods, data collection instruments, data analysis, ethical considerations, limitations of the study and chapter conclusion.

3.1 Research design

According to Creswell, (2012) a correlation research design is where investigators use the correlation statistical test to describe and measure the degree of association or relationship between two or more variables. It is used to examine the relationship between two or more variables. In this study, the correlation design was used to measure the relationship between the two variables the literacy learning environment and children's literacy skills development in the Nakawa Division.

3.2 Research methods

A combination of methods were used so as to improve on the accuracy of the results by cross checking each method used in the data collection against another which is triangulation. According to Cohen, (2008) Triangulation is explained as different methods of data collection producing substantially the same results.

The researcher used document review and observation methods to collect quantitative data and structured interviews for qualitative data to increase on the chances of getting thoughtful results.

3.2.1 Document Review

According to a report by World Bank Evaluation Group (2007), document review is a way of collecting data by reviewing existing documents with the intention of collecting independently verifiable data and information. The researcher reviewed records of end of

term literacy marks of primary one and primary three children in order to collect data on literacy performance of children in lower primary.

3.2.2 Observations

The researcher took time and observed the physical, social and temporal literacy learning environment in relation to literacy skills development in primary 1 and primary 3 classes. Kawulich (2005) defined observation as the systematic description of events, behaviours and artifacts in the social setting chosen for study. The researcher compiled a list of items to be observed, including physical, social and temporal aspects.

3.2.3 Structured interviews

Patton, (2015), defined structured interviews as asking specific information related to the aims of a study. Leedy and Ormrod, (2001) also defined structured interviews as asking a set of standard questions and noting more. The researcher interviewed parents, teachers and children to get their views on the physical, social and temporal literacy learning environment and literacy skills development.

3.3 Location of the study

The study was conducted in Nakawa Division Kampala City Council.Kampala is a city found in the Central Region. Nakawa Division lies in the eastern part of the city, bordering Kira Town to the east, Wakiso District to the north, Kawempe Municipality to the north-west, Kampala Central Municipality to the west, Makindye Municipality across Murchison Bay to the south-west and Lake Victoria to the south. Neighbourhoods' in the division include Bugoloobi, Bukoto, Butabika, Kiswa, Kiwaatule, Kyambogo, Kyanja, Luzira, Mbuya, Mutungo, Nabisunsa, Nature, Nakawa, and Ntinda. It has 23 parishes, 227 villages, 108 primary schools and 38,850 students (MOES 2013). It is one of the slum areas in Kampala City Council with a high number of children.

3.4 Research instruments

These comprised of the Document review, observation checklist and interview guide. These instruments were helpful in the collection of valid and reliable data which was analyzed and finally presented in the preceding chapter, that is, chapter four.

3. 4.1 Document review

The researcher obtained data by compiling end of term literacy marks of selected children in primary one and primary three classes. In both private and government aided primary schools in Nakawa Division and Kampala district. This was done in order to attain the general performance in literacy skills.

3.4.2 Observation check list

The researcher used an observation checklist and the physical literacy learning environment aspects observed were literacy learning materials, literacy learning activities and classroom arrangement, the social literacy learning environment aspects observed where teacher groupings and peer-peer interactions, while the temporal literacy learning environment aspects observed were timings, sequence of events and routine of literacy activities.

3.4.3 Interview guide

The researcher used an interview guide and participants were asked to rank what they think is the most vital in a conducive literacy environment considering the physical, social and temporal literacy learning environments. They were also asked to give their views on the physical, social and temporal literacy learning environment.

3.5 Target population

The target population of the study included lower primary literacy teachers in private and government aided schools P1 and p3. These were chosen because they are responsible for teaching literacy skills in the given class. Primary 1 and primary 3 were chosen because primary 1 is the entry point of primary education and primary 3 is the end of lower primary.

Pupils in primary one and primary three were considered as the target group so as to access the given literacy skills.

3.6 Sample size and sampling technique

3.6.1 Sample size

The Sample size of the study was determined by recommending studies. According to Sekaran, (2003).Sample sizes larger than 30 and less than 500 are appropriate for most research. The sample size of the study was 324 which was larger than 30 and less than 500 as recommended by research hence suitable to be used in the study.

The table 1 below shows the sample size used for this study;

Table 1:

Sample size and sampling technique

Category	Population	Sample	Technique
Teachers	25	24	Purposive
Parents	70	60	Purposive Sampling
Children	650	240	Random Sampling
Total	745	324	

Source: Krejcie and Morgan, (1970)

3.6.2 Sampling technique

Purposive sampling techniques were used for this study in order to select 12 primary schools for the study. It was purposive sampling because it is a non- probability sampling technique and uses samples that are selected based on the characteristics of a population and the objective of the study. The schools selected were government aided or private school in Nakawa Division Kampala City Council.

The study used purposive sampling method in order to select the classes observed. Schools having more than one stream, random sampling was employed to determine the

stream observed. The researcher also used random sampling to determine the children's marks recorded so as to give all children an equal chance of being included in the sample.

3.7 Validity and reliability

The validity and reliability of the instruments in this study were checked as follows:

3.7.1 Validity

Validity refers relevance of the instruments in measuring what it is supposed to measure. Validity also refers to whether or not the test measures what it claims to measure. It deals with the question of how research findings match reality (Merrian, 1998).The study used face validity to measure the validity of the research instrument. The researcher used8 people with expertise in research methodology to judge the items whether they are appropriate to answer the intended questions. After judgment CVI was calculated. That is;

$$\frac{\text{Items scored as Ok}}{\text{Total number of items}} = \frac{6}{8} = 0.75$$

Amin (2005) says that when validity is above 0.70, then the tool is valid.

3.7.2. Reliability

Reliability refers to the extent to which research findings can be replicated Merrian, (1998). It tests to see whether the results can be the same if the same situation is repeated all over again. To ensure reliability, a pilot study was conducted and a test – retest was done and Cronbach Alpha used to get reliability. The answer was 0.68. Amin, (2005) says when reliability is above 0.5 the tool is reliable.

3.8 Data Collection Procedure

The researcher visited the selected schools and talked to the head teachers and literacy teachers of lower primary for purposes of getting permission and making appointments.

Letters of consent were given to participants and only those who consented were considered for the study.

The researcher went back at the agreed time and interview teachers, parents and children on the literacy learning environment. The end of term one literacy scores was obtained from document review and classroom observations on the physical, social and temporal literacy environment will be conducted. All respondents were thanked for the study.

3.9 Data processing and analysis

For research objectives 1, 2and 3 sought to determine the relationship between the physical, social and temporal literacy learning environment and children's literacy skills, the researcher collected and grouped data using the two variables. The researcher then coded data using scatterplots to see any underlying trend in relationship. Data was analyzed using Pearson correlation test to measure the strength of a linear relationship between paired data. Photos of the learning environment of some classes were used as well as some children's literacy scores.

3.10 Ethical considerations

A letter of permission to collect data was obtained from the Head of Department, ECD Kyambogo University. A letter from Nakawa Division was also obtained from recommended authorities. The letters were used to introduce the researcher to the selected schools and individual participants in the study. The researcher explained to the participants the purpose of the study since consent letters were given before and participants were assured that all information would be handled with maximum confidentiality.

CHAPTER FOUR

PRESENTATION AND DISCUSSIONS OF FINDINGS

4.0 Introduction

This chapter details the findings, analysis and interpretation of data. This study sought to establish how the literacy learning environment is affecting children's literacy skills in lower primary in Nakawa Division, Kampala City Council; determine the relationship between the physical literacy learning environment and children's literacy skills development, examine the relationship between the social literacy learning environment and children's literacy skills and to assess the relationship between the temporal learning environment and children's literacy skills in lower primary. The findings are presented starting with demographic information.

4.1 Demographic information

Demographic information presents participants as per categories and gender. The participants as per categories are shown in table 2.

4.1.1 Categories of participants

Table 2:

Categories of participants

S/N	Participants	f	%
1	Teachers	24	7.4%
2	Parents	60	18.6%
3	Children	240	74%
	Total	324	100%

Source: primary data

Table 2 shows that in the study the most participants 240 (74%) were learners while the least 24 (7.4%) were teachers.

4.1.2 Category of participants by gender

To capture the information about the participants, their gender was established as shown in figure 2
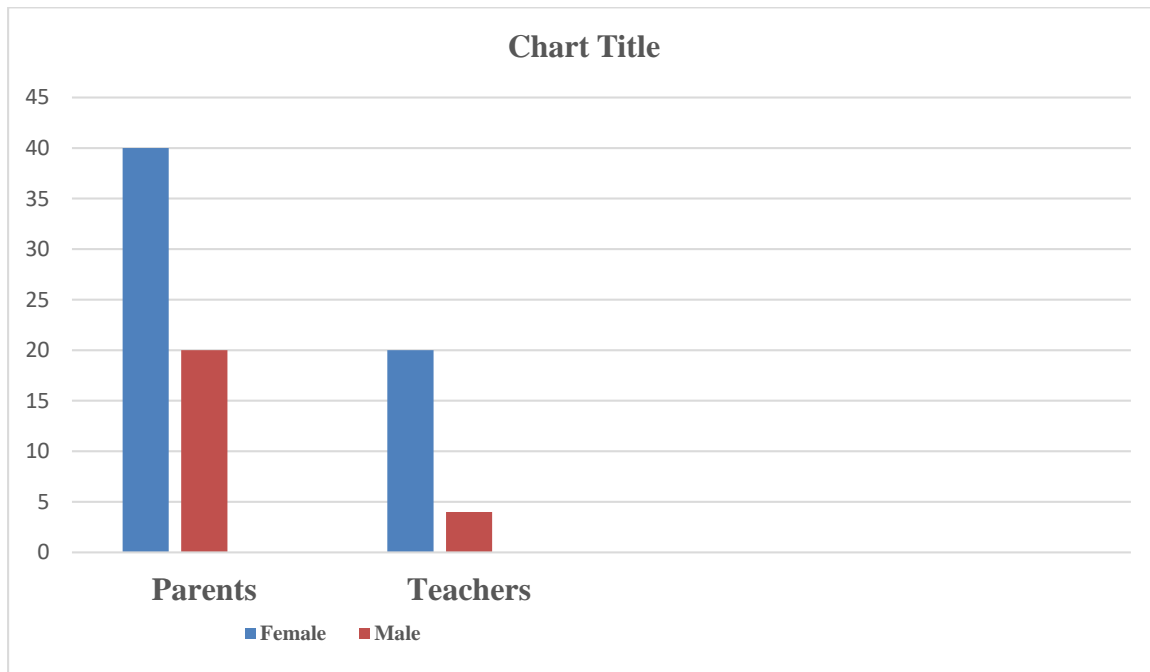
Figure 2: Gender of parents and teachers

Source: Primary data 2019

Figure 2 shows that there were more female parents (40) than male parents (20) who participated in this study. This is because the female parents are the ones who mainly dropped off or picked up children at school. The figure also shows that there were more female teachers (20) who participated in this study than male teachers (4). This is mainly due to the fact that lower primary teachers are female.

The study findings, analysis and interpretation of data are presented using descriptions, scatter plots, correlations and views from the participants as related to the study objectives.

4.2 Objective 1: To determine the relationship between the physical literacy Learning environment and children's literacy skills in lower primary.

In order to determine if there is a relationship between the physical literacy learning environment and children's literacy skills development in lower primary in Nakawa Division, The following hypothesis was tested.

Ho 1: There is no statistical relationship between the physical literacy learning environment and children's literacy skills development at 0.05 level of significance. This hypothesis was set to test whether a significant relationship existed between the physical literacy environment and children's literacy skills development.

Through classroom observation, mean scores of the physical literacy environment were obtained in relation to children's literacy skills and they are shown below.

Table 3 below shows the mean scores of children's literacy marks in relation to scores in the physical literacy learning environment.

Table 3:

Mean scores of children's literacy marks in relation to scores in the physical literacy learning environment.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
scores	240	2.00	99.00	60.6917	27.87518
phy	240	7.00	28.00	14.0292	6.14973
Valid N (listwise)	240				

Table 3 above shows that the mean of the physical literacy environment is (14.0292) this indicates that the physical literacy environment in lower primary schools in Nakawa Division Kampala City Council is left wanting.

The study also sought to get views from teachers, parents and children through interviews on the relationship between the physical literacy learning environment and children's literacy skills.

4.2.1: Views of teachers, parents and children on the physical literacy learning environment.

Teachers were asked what constitutes a good physical literacy environment and the responses are shown in table 4 below:

Table 4:

Teachers views on the physical literacy learning environment and children's literacy skills

Item	No of responses	Percentage
Teaching/Learning Materials: (Staged readers, phonic word cards, reading books, literacy charts)	12	50%
Teaching/ Learning Activities: (Book reading, drawing/writing, storytelling, songs/ rhymes)	5	20.9%
Classroom Arrangement: Different learning centers, labeled literacy materials, display of children's work.	7	29.1%
Total	24	100%

Source: primary data 2019

According to the table 4 above, 12 teachers(50%) were of the view that the literacy teaching and learning materials were the most vital in the physical literacy environment. 7 (29.1%) were of the view that the classroom arrangement was important while 5 (20.9%) considered the teaching and learning activities as important.

Through interviews one teacher said that " *when the teacher is provided with appropriate and adequate literacy materials, like phonic cards and reading books, children can easily learn to read and write since learning to read begins with learning the sounds.*"

Another teacher noted that the physical literacy environment promotes vocabulary development if designed well. She said, *"In my class I have the reading area, writing area*

and play area these areas help children develop their vocabulary as they interact with their friends."

Another teacher was of the view that the physical literacy environment can enhance literacy skills like comprehension. He stated that, "*when a class is reach in print with things like reading books it is easy for a teacher to continuously read stories to children and ask those questions in relation to the story."*

A teacher also revealed that the physical literacy environment contributes greatly to vocabulary development and fluency of children when she stated that, "*when word charts or words are displayed in a classroom, children in their free time can read independently or with their friends".* In addition to that a teacher said, *"When children arrive in the morning, some of them start reading the words and sentences on the charts displayed even without the guidance of a teacher."*

However, some of the teachers revealed that much as the physical literacy environment is vital in literacy skills development it is left wanting in some schools. One teacher said, *I would love to see children in my class reading books individually but we have very few readings compared to the number of children."*

The views of parents on the physical literacy environment were also established through interviews as reflected below.

Parents were asked what constitutes a good physical literacy environment and the responses are shown in table 5.

Table 5:

Parents views on the physical literacy learning environment and children's Literacy skills.

Item	No of responses	Percentage
Teaching/Learning Materials: (Staged readers, phonic word cards, reading books, literacy charts)	35	58.3%
Teaching/ Learning Activities: (Book reading, drawing/writing, storytelling, songs/ rhymes)	10	16.7%
Classroom arrangement: Different learning centers, labeled literacy materials, display of children's work.	15	25%
Total	60	100%

Source: primary data 2019

Table 5 above shows the views of the parents on what they considered the most vital in the physical literacy learning environment in the development of children's literacy skills development.

The table shows that 35(58.3%) of the parents agreed that a good physical literacy environment should have appropriate teaching, learning materials, 15 (25%) were of the view that the classroom arrangement was critical while 10 (16.7%) suggested that the teaching learning activities were very crucial in literacy development.

Various parents were interviewed on the physical literacy environment and children's literacy skills developed and some of their views are reflected below.

One of the parents interviewed said, "*when the physical literacy environment is attractive to children with things like story books, picture and word cards or phonic cards, children's desire to read is intrigued and children's vocabulary is enriched.*"

Another parent gave an observation and said, *"My child was having challenges in reading in his former school, he never came home with any word cards or books, but when I*

changed him to this school, he sometimes comes home with readers, or word cards to read at home his vocabulary and reading skills have greatly proved and am pleased.

The above voice clearly indicates that when a child is exposed to a conducive literacy environment it enhances their literacy skills.

One parent stated that, *"learners spend most of their time in the classroom, therefore the quality of the classroom learning environment is very important. If the classroom is attractive and well set up child will always be enthusiastic to come to school and learn."*

One parent noted that, *"when the physical literacy environment is well provided for and children have ready access to writing tools like crayons, paper, markers even paint and paint brushes with which they can express themselves, they are motivated to express themselves verbally and communicate to others and this improves their vocabulary."*

However, one parent revealed that the physical literacy learning environment in some schools and classes is left wanting. She said, *"When you enter some classes you find bare walls with no picture or word charts, not even a sign of reading books and our children's work is not displayed if this type of classroom environment is not addressed, then our children may find challenges in having the desire to read."*

Children were asked what constitutes a good physical literacy environment and the responses are shown in table 6 below;

Table 6:

Children's views on the physical literacy learning environment and Literacy skills development.

Item	No of responses	Percentage
Teaching/Learning Materials: (Staged readers, phonic word cards, reading books, literacy charts)	15	25%
Teaching/ Learning Activities: (Book reading, drawing/writing, storytelling, songs/ rhymes)	20	33.3%
Classroom arrangement: Different learning centers, labeled lit materials, display of children's work.	25	41.7%
Total	60	100%

Source: primary data 2019

Table 6 above shows that 25 (41%) of the children considered the classroom arrangement as very critical for a conducive physical literacy environment 20 (33.3%) were of the view that learning activities were very vital while 15 (25%) considered learning materials as crucial.

One of the interviewed learners said, *" The teachers sometimes puts our work up on the walls for our parents to see and this makes me very happy even our class looks very good and other children are also excited."* The voice of the child above shows that the physical literacy environment is very vital in promoting children's literacy skills.

Another child revealed that a conducive literacy learning environment promotes the development of vocabulary skills and comprehension skills when she said that, *"Our class has a lot of charts with words, sounds and sentences when I come early to school my friends and I start reading the charts and I have learnt many new words."*

One child stated that, *when student teachers come, they come with good things like charts and reading cards they even set up reading trees for us in class and during our free*

time we can go to the corners and read the words on the tree." This clearly shows that the physical literacy environment helps promote literacy skills.

One child stated that, because of a good physical literacy environment with things like phonic cards, reading books and literacy charts in class, he was able to learn how to read and he enjoys his class. The above are the views of the teachers, parents and children on the physical literacy environment.

The scatter plot interactive graph was used to determine the direction of scores between the physical literacy Learning environment and children's literacy skills.
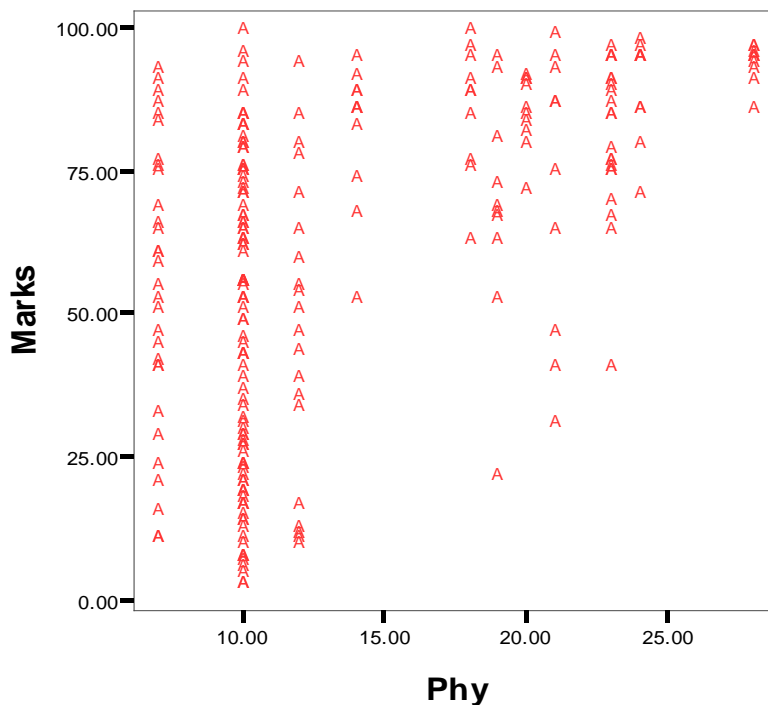
Source: Primary data 2019

Figure 3: Scatter plot showing the direction of scores between the physical literacy learning environment and children's literacy skills in lower primary classes.

The scatter plot in figure 2 above shows that there is a positive relationship between the physical literacy learning environment and children's literacy skills development since the scores are rising from left to right. This shows that as the scores of the physical literacy

learning environment increase, the learners' scores in literacy also increase. So one can say if the physical literacy learning environment is improved, the higher the literacy scores of learners.

In order to determine the strength of the relationship between the physical literacy environment and children's literacy skills, a correlation table was used.

The table 7 below shows the relationship between the physical literacy learning environment and children's literacy skills development.

Table 7:

Shows the relationship between the physical literacy learning environment and children's literacy skills

Correlations

		scores		phy
scores	Pearson Correlation	1		.537(**)
	Sig. (2-tailed)			.000
	N	240		240
phy	Pearson Correlation	.537(**)		1
	Sig. (2-tailed)	.000		
	N	240		240

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

Table 7 above shows that r=.537, p< 0.05 level of significance. This means that there is a statistically significant relationship between the physical literacy learning environment and literacy skills development of children in lower primary. The correlation is positive, meaning as the physical literacy environment improves, the higher the literacy scores of learners. Since the P value is less than the level of significance we can say there is a statistically significant relationship between the physical literacy learning environment and children's literacy skills and it did not happen by chance.

After ascertaining the relationship between the physical literacy learning environment and children's literacy skills there is need to determine the effect of the physical literacy environment on children's literacy skills

The strength of the effect of the physical literacy learning environment on literacy skills development is got by squaring r, thus

$(r2\times100)$

r= $0.537\times 0.537\times100$ r = 0.28.8%.

This shows that the effect of the physical literacy learning environment to children's literacy skills is 28.8% the remaining 71.2% is other factors.

The null hypothesis which proposed that there was no statistically significant relationship between the physical literacy learning environment and children's literacy skills development in lower primary was therefore rejected. It was therefore concluded that a statistically significant relationship exists between the physical literacy learning environment and children's literacy skills development in lower primary in Nakawa Division. However, there was need to get the views of the participants in the physical literacy environment and children's literacy skills.

4.3 Objective 2: To examine the relationship between the social literacy Learning environment and children's literacy skills in lower primary.

In establishing if a statistically significant relationship existed between the social literacy learning environment and children's literacy skills development in Nakawa Division, the following hypothesis was tested.

Ho 2: There is no statistically significant relationship between the social literacy learning environment and children's literacy skills development at the .05 level of significance. This hypothesis were set to test whether a significant relationship existed between the social literacy

Through classroom observation, scores of the social literacy environment were obtained in relation to children's literacy skills and the mean score is depicted below.

Table 8 below shows the mean scores of children's literacy marks and the mean score of the social literacy learning environment.

Table 8:

Mean score of children's literacy skills and mean score of the social literacy learning environment.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
scores	240	2.00	99.00	60.6917	27.87518
soc	240	2.00	12.00	5.3625	2.90106
Valid N (listwise)	240				

Table 8 above shows that the mean of the social literacy learning environment is (5.3625) this indicates that the social literacy learning environment in lower primary schools in Nakawa Division Kampala City Council is left wanting.

Views of teachers, parents and children on the social literacy learning environment and children's literacy skills were obtained through interviews as shown below.

4.3.1 Views of teachers, parents and children on the social literacy learning environment and children's literacy skills development

Teachers were asked what constitutes a good social literacy environment and the responses are shown in table 9 below.

Table 9: Teachers views to the social literacy learning environment and children's

literacy skills

Item	No of responses	Percentage
Teachers groups Small groups, large groups, whole class	10	41.7%
Peer to Peer interactions Pair work, group work, individual work whole classwork	14	58.3
Total	24	100%

Source: primary data 2019

The table 9 above shows the views of the teachers on what they considered the most vital in the social literacy learning environment in the development of children's literacy skills development.

According to the table above, 14 teachers (58.3%) were of the view that peer to peer interactions by use of pair work, Group work and individual work given according to the ability of learners where the most vital in the social literacy environment to develop literacy skills. 10 (41.7%) were of the view that the use of small, large and whole class groups in literacy skills development was vital.

Through interviews one of the teachers noted that, "*when the social literacy environment is well designed it promotes positive peer relationships among children. Children interact with each other as they explore the different learning centers this builds their vocabulary skills and they become more fluent in expressing themselves*".

In relation to the above view, another teacher stated that "*a conducive social literacy environment can help establish the challenges or gaps that children have in literacy*". When children are given tasks to work in small groups or pairs like reading a passage and giving feedback, the teacher can easily identify children that are having in vocabulary and

comprehension as they express themselves, which may not be possible if children are always taught as a whole class.

Another teacher was of the view that "*a conducive literacy learning environment offers opportunities for learners to learn through play and interact with peers and this can develop their vocabulary skills*".

Another teacher was of the view that, "*aligning desks in rows makes students lose focus and creates a higher number of disruptions in class while organizing a class in small groups helps the teacher easily manage a class*".

In relation to the above, one teacher noted that "*group work helps to maximize learner participation in discussions. Children are able to learn from their peers how to pronounce, spell and write new words and even use them in sentences*". This statement shows that the social literacy environment can help in the development of literacy skills like vocabulary, phonemic awareness and comprehension.

Views on the social literacy environment and children's literacy skills of parents were established through interviews as revealed below.

Table 10:

Parents views on the social literacy learning environment and children's literacy skills

Item	No of responses	Percentage
Teachers groups Small groups, large groups, whole class	20	33.3%
Peer to Peer interactions Pair work, group work, individual work whole class work	40	66.7%
Total	60	100%

Source: primary data 2019

Table 10 above shows the views of the parents on what they considered the most vital in the social literacy learning environment in the development of children's literacy skills development.

The table shows that 40(66.7%) of the parents agreed that a good social literacy environment should promote peer to peer interactions by use of the pair, group and individual work 20 (33.3%) teachers were of the view that the use of small large and whole class groupings were very crucial in literacy skills development of children in lower primary.

Various parents were interviewed on the social literacy environment and children's literacy skills developed and some of their views are reflected below.

"*A conducive social literacy learning environment should ensure that there is a positive interaction between teachers and children and amongst peers. Children should be able to interact and learn from each other and the teacher should be in a position to interact with children individually or in groups,*" said one parent.

Another parent revealed that, *"when a classroom has a good social literacy learning environment, children are able to work in small groups in the different areas this helps children learn from each other and gives an opportunity for most children to participate in class this develops their fluency in speaking and vocabulary skills"*

Another parent was of the view that a conducive social literacy environment should promote the reading culture in children. "*Children should be in a position to access reading materials easily, they can read books individually or in small groups in order to develop their literacy skills.*"

Another parent stated that "*a good social literacy environment should ensure that children work together in pairs, or groups this can be done by assigning them tasks in groups like acting out skits, conducting debates are taking turns in reading a given passage this can develop children's self-esteem it can also develop children's literacy skills like fluency, vocabulary and comprehension.*"

In order to capture the views of children on the social literacy learning environment, interviews were conducted.

The following data was captured about children's views on the social literacy learning environment and children's literacy skills. This is as presented in table 11 below;

Table 11:

Views of children on the social literacy learning environment and children's literacy skills

Item	No of responses	Percentage
Teachers groups Small groups, large groups, whole class	15	25%
Peer to Peer interactions Pair work, group work, individual work whole class work	45	75%
Total	60	100%

Source: primary data 2019

Table 11 above shows that 45 (75%) of the children considered pair work, group work and individual work as very critical for a conducive social literacy environment 15 (25%) were of the view that teacher groups were very vital in a conducive social literacy learning environment.

Through interviews one child stated that, *"our teachers sometimes read to us stories or tell us stories in class they are very interesting and this has helped me learn new words that I can also use while I am talking to my friends."* This voice clearly indicates that a good social literacy environment where teachers can freely interact with children can help develop children's literacy skills.

Another child was of the view that working in small groups was of great benefit as quoted "*At times, student teachers give us work to do in small groups and they keep on checking to see which groups are working together we learn new words from our friends, even who to pronounce words correctly."* This indicates that the social literacy environment should be carefully planned with appropriate activities to enhance children's literacy skills."

It was established that the social literacy environment is of great importance in the development of literacy skills. Through an interview one child stated that, "*When we are given sound cards to read, we help each other to read the sounds that we do not know we even read word cards together and I sometimes learn to read new words.* "However, one child revealed that, "*We have very few reading books in our class so we are rarely given group work. The teacher usually gives us work as a whole class. They write the passage or story on the chalkboard and we all read together but some children do not read.*"

The above voice indicates that there is need to carefully plan the learning environment to ensure participation of all children in class. The above are the views of the different categories of participants in the study of the social literacy learning environment and children's literacy skills development.

The scatter plot graph was used to determine the direction of scores between the social literacy learning environment and children's literacy skills in lower primary classes.
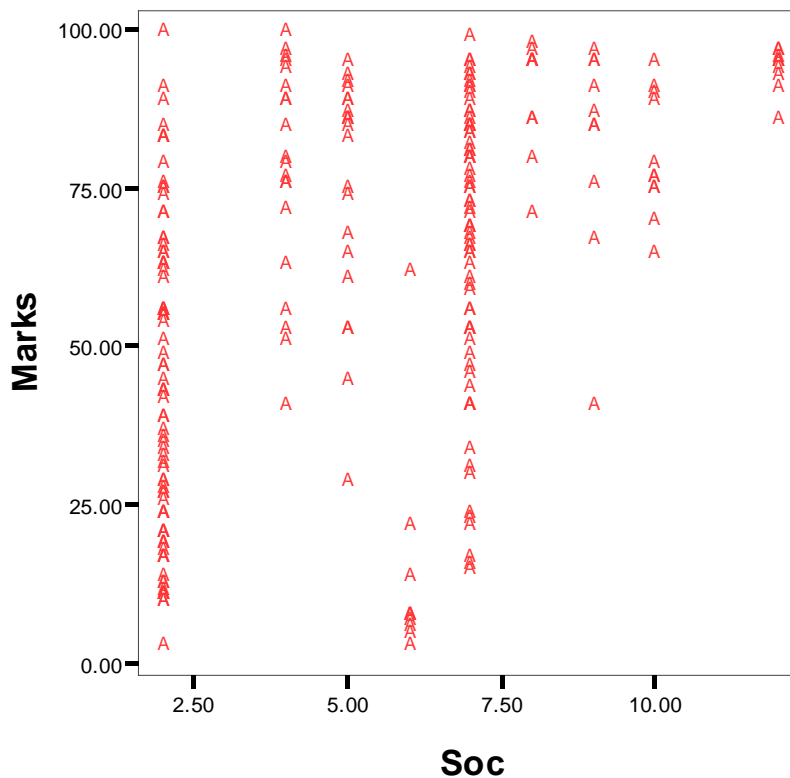
Figure 4: Scatter plot showing the direction of scores between the social literacy learning environment and children's literacy skills in lower primary schools.
Source: Research Findings 2019

The scatter plot shows that there is a positive relation between the social literacy learning environment and children's literacy skills since the scores are rising from left to right. This shows that as scores in the social literacy learning environment increase, the literacy marks of the learners also increase. Hence the need to determine the strength of the relationship between the social literacy learning environment and children's literacy skills. In order to determine the strength of the relationship between the social literacy environment and children's literacy skills, a correlation table was used.

Table 12:
Relationship between the social literacy learning environment and children's literacy skills.

Correlations

		scores	soc
scores	Pearson Correlation	1	.471(**)
	Sig. (2-tailed)		.000
	N	240	240
soc	Pearson Correlation	.471(**)	1
	Sig. (2-tailed)	.000	
	N	240	240

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

The table 12above shows that r= .471, p< 0.05 level of significance. This means that there's a statistically significant relationship between the social literacy learning environment and children's literacy skills. The correlation is positive, meaning that the better the social literacy learning environment, the higher the literacy scores of learners. Since the p value is less than the level of significance we can say that there is a statistically significant relationship between the social literacy learning environment and children's literacy skills development in lower primary and it did not happen by chance.

Since table 12 shows that there is a relationship (r=.471) between the social literacy learning environment and children's literacy skills development, we have to work out the effect of the social literacy learning environment to children's literacy development in lower primary schools.

The strength of the effect of the social literacy learning environment on literacy skills development is got by squaring r, thus:

$r 2 \times 100$

$r 2 = 0.471 \times 0.471 \times 100$

$r 2 = 0.221$

$r 2 = 22\%$

The effect of the social literacy learning environment for literacy skills development is 22%, the remaining 78% is other factors.

The null hypothesis which proposed that there was no statistically significant relationship between the social literacy learning environment and children's literacy skills development in lower primary was therefore rejected. It was therefore concluded that a statistically significant relationship exists between the social literacy learning environment and children's literacy skills development in lower primary in Nakawa Division.

4.4 Objective 3: To assess the relationship between the temporal literacy learning environment and children's literacy skills development

In order to determine if there is a relationship between the temporal literacy learning environment and children's literacy skills development in lower primary in Nakawa Division, The following hypothesis was tested.

Ho 3: There is no statistical relationship between the temporal literacy learning environment and children's literacy skills development at 0 .05 level of significance. This hypothesis was set to test whether a significant relationship existed between the temporal literacy environment and children's literacy skills development.

Through classroom observation, scores of the temporal literacy environment were obtained in relation to children's literacy skills and the mean score is depicted below.

Table 13: below shows the mean scores of children's literacy and mean scores in the temporal literacy learning environment.

Table 13:

Mean score of temporal literacy learning environment and mean score of children in literacy.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
scores	240	2.00	99.00	60.6917	27.87518
tem	240	4.00	14.00	7.9917	1.82725
Valid N (listwise)	240				

Table 13 above shows that the mean of the temporal literacy learning environment is (7.9917) this indicates that the temporal literacy learning environment in lower primary schools in Nakawa Division Kampala City Council is left wanting.

4.4.1 Views of the teachers, parents and children on the temporal literacy learning environment.

Interviews were used to establish the views of teachers on the temporal literacy learning environment and children's literacy skills. The following data was captured and presented in table 14below;

Table 14:

Teachers views on the temporal literacy learning environment and children's literacy skills development

Item	No of responses	Percentage
Sequence of events Evidence of a timetable, evidence of daily visual routine	10	41.7%
Daily Routine of literacy activities Free play, Circle time, Activity time, Playtime	14	58.3%
Total	24	100%

Source: primary data 2019

Table 14 above shows that 58.3% of the teachers were of the view that daily routine of activities like circle time, play time, activity time and free play were very vital in the temporal environment while 41.7% were of the view that sequence of events by use of timetables and daily visual routines were very vital when planning the temporal literacy learning environment.

One teacher revealed that, "*with a conducive temporal environment like time tables and daily routines the teacher is organized and it helps reduce time wastage the teacher is able to ensure that the target for a given activity are met.*"

Another teacher was of the view that "*routines and schedules should be shared with the children at the beginning of each day because learners will know exactly what to do during the day and this helps in class management*".

Through interviews one teacher stated that, "*when routines are carefully discussed in class and are followed children get to know what is expected of them*".

Through interviews, parents' views of what they considered as the most vital for a conducive temporal literacy environment are depicted below.

The following data was captured and presented in the table 15 below;

Table 15:

Parents views on the temporal literacy learning environment and children's literacy skills

Item	No of responses	Percentage
Sequence of events Evidence of a timetable, evidence of daily visual routine	25	41.7%
Daily Routine of literacy activities Free play, Circle time, Activity time, Playtime	35	58.3%
Total	60	100%

Source: primary data 2019

Table 15 above shows that 58.3% of the parents were of the view that daily routine of activities like circle time, play time, activity time and free play were very vital in the temporal environment while 41.7% were of the view that sequence of events by use of timetables and daily visual routines were very vital when planning the temporal literacy learning environment.

"*Timetables and routines are very vital I am able to know what subjects or activities my child will be engaged in during the day and at the end of the day I can follow up on what was done at school.*" As quoted by a parent

Another parent noted that, "*my child has specific days they borrow books from the school library and when to return them. I have seen my child's interest in reading increase greatly.*"

Another parent said that, "*routines and time tables are very vital they enable the child to be organized, however, changes in routines should be communicated beforehand to children to help them prepare for the change.*"

Through the use of interviews the views of children were got on what they considered as the most vital for a conducive temporal literacy environment

The following data was captured and presented as follows;

Table 16:

Children's views on the temporal literacy learning environment and children's literacy skills.

Item	No of responses	Percentage
Sequence of events Evidence of a timetable, evidence of daily visual routine	15	25%
Daily Routine of literacy activities Free play, Circle time, Activity time, Playtime	45	75%
Total	60	100%

Source: primary data 2019

Table 16 above shows that 45(75%) of the children considered daily routine literacy activities as very crucial for a conducive temporal literacy learning environment while 15(25%) considered the sequencing of events by use of time tables and daily visual routines as vital for a conducive temporal literacy learning environment.

One child was of the view that *"timetables are very vital when he said, in our class diaries we are given the days when we do different activities like borrowing books from the library and when to return them so I know how long I should stay with my reading book"*.

Another child said that, "*our timetable shows what we are going to learn and for how long we are going to have that subject and we even know when it is play time because that time is shaded with a different colour"*.

Through interview one child said, "*When we are playing with toys, we know how to take turns because the teacher has a timer when we should change to a different activity so we do not fight or quarrel for toys because we know we shall get a turn to play with them"*. To determine the direction of the scores between the temporal literacy environment and literacy skills development skills of children in lower primary, a scatter plot graph was used.
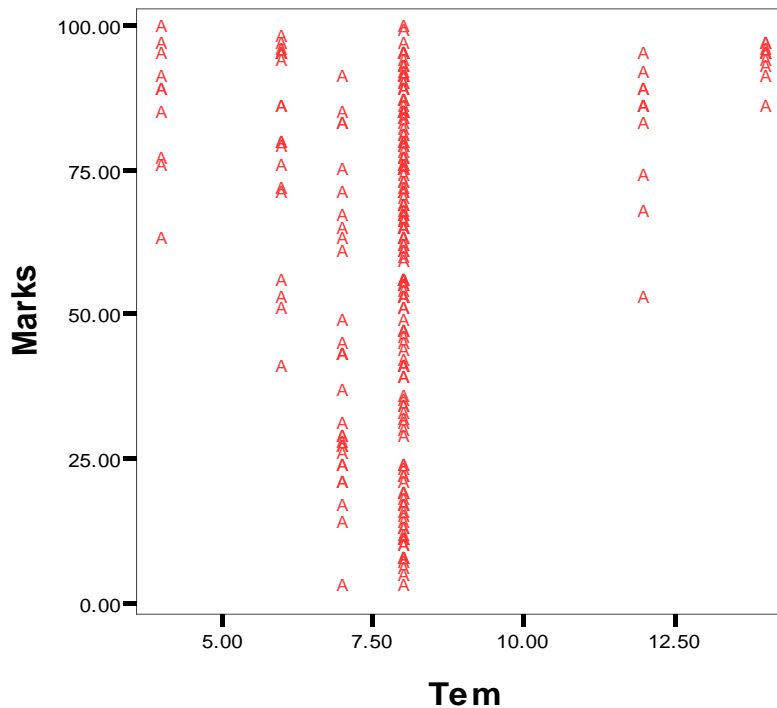
Figure 5: Scatter plot showing the direction of scores between the temporal literacy learning environment and children's literacy skills'

Source: Research Findings 2019.

It was found that there is a positive relationship between the temporal literacy learning environment and children's literacy skills in lower primary since scores are rising from left to right. The scatter plot shows that as the temporal environment improves the literacy scores of learners also increase. Since the scatter plot graph reveals that there is a relationship between the temporal literacy learning environment and children's literacy skills development in lower primary there is needed to find out the strength of the relationship between the temporal literacy learning environment and children's literacy skills development in lower primary and this was established by the use of Pearson correlation coefficients

.

Table 17 below shows the relationship between the temporal literacy learning environment and children's literacy skills development.

Table 17:

Relationship between the temporal literacy learning environment and children's literacy skills

Correlations

		scores	tem
scores	Pearson Correlation	1	.139(*)
	Sig. (2-tailed)		.032
	N	240	240
tem	Pearson Correlation	.139(*)	1
	Sig. (2-tailed)	.032	
	N	240	240

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

The table 17 above shows that r= .139, p< 0.05 level of significance. This means there is a statistically significant relationship between the literacy learning environment and children's literacy skills development. The correlation is positive, meaning that as the temporal environment improves the literacy marks of learners also improve. Since the p value is less than the level of significance, we can say, there is a statistically significant relationship between the temporal literacy learning environment and the literacy skills development of learners and it did not happen by chance.

The study findings showed that there is a weak positive relationship between the temporal literacy learning environment and children's literacy skills development, ((r=0.139). Since there is a statistically significant relationship between the temporal literacy learning environments for children's literacy skills, there is need to calculate the effect of the temporal literacy learning environment to children's literacy skills development.

The effect of the temporal literacy learning environment on children's literacy skills development is got by squaring r, thus:

$r^2 \times 100$

$r^2 = 0.139 \times 0.139 \times 100$

$r = 0.019$

The null hypothesis which proposed that there was no statistically significant relationship between the temporal literacy learning environment and children's literacy skills development in lower primary was therefore rejected. It was therefore concluded that a statistically significant relationship exists between the temporal literacy learning environment and children's literacy skills development in lower primary in Nakawa Division.

Research findings proved that there is a statistically significant relationship between the literacy learning environment and children's literacy skills in lower primary in Nakawa Division Kampala City Council. The physical environment contributed 28%, the social environment contributed 22% and the temporal environment contributed 19%.The total percentage of the literacy learning environment for the development of literacy skills in lower primary was 69% while 31% is for other factors.

CHAPTER FIVE

DISSCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussion of the study findings and conclusions drawn from them. The chapter also presents recommendations that different stakeholders can adopt to improve the literacy learning environment. It also has suggestions for further research.

5.1 Discussion

The following includes a discussion of the study findings based on the study objectives as presented below,

5.1.1 Relationship between the physical literacy learning environment and children's literacy skills development in lower primary classes

This objective was set to determine the relationship between the physical literacy learning environment and children's literacy skills. The results in regard included but not limited to: Learning materials comprised of: staged readers, phonic word cards, reading books, literacy charts, among others; Learning activities included: Book reading, drawing/writing, storytelling, songs/ rhymes and a like; Classroom arrangement consisted of different learning centers, labeled literacy materials and display of children's work.

The findings reveal that there is a relationship between physical literacy learning environment and children's literacy skills development at (r=.537). These results agree with some scholars like Maria Montessori who noted that the physical environment has an indirect influence on learning and unless it is well done there can be no effect and permanent results in learning.

Study findings indicated that 50% 0f teachers and 58% of parents agreed that the availability of good literacy materials in the physical literacy environment can help develop children's literacy skills. Gersten and Geva, (2003) also pointed out that using literacy learning materials is one way of teaching content to children who are learning English.The results also confirm and agree with Aydogan, Farran, Kang and Lipsey, (2006), who stated that physical literacy environments vary widely in amount of reading materials and the engagement with them. The availability of print resources can serve to promote children's literacy behaviors in addition to instructional use of the materials by the teachers.

Research findings showed that 20.9% of teachers, 16.7% of parents and 33.3% 0f children were of the view that appropriate literacy learning activities like book reading, storytelling and singing songs and rhymes would promote vocabulary development, phonemic awareness and fluency would help develop children's literacy skills. These findings are supported by Wellhousen and Crowther, (2004).According to Pica (as cited in Wellhousen and Crowther, 2004) music is one method of motivating students to communicate and share with their peers about their culture. Pica also noted that songs, rhymes and storytelling is linked to increased student attention span and listening skills.

Study findings indicated that 41.7% of the children, 29.1% of teachers and 25% of parents considered classroom arrangement as very vital for the development of children's literacy skills. This study finding is in line with Patton, (2001) who found that larger part (94%) of the K-3 instructors utilize a semicircle or cluster to arrange the work areas in their classrooms. The educators reacted that arrangement of work areas in the cluster has a few focal points, i.e., empowering cooperative learning, creating a feeling of class community and best utilization of the space. Effective desk arrangement provides chances to students to be actively involved in learning process and makes the chance to work supportively with their partners.

Wilczenski, (2001), also agrees with the above finding when he states that, changes in classroom environmental arrangement, such as rearranging furniture, implementing activity schedules, and altering ways of providing instructions around routines, have been found to increase the probability of appropriate behaviors and effectively decrease the probability of challenging behaviors.

The role of the physical learning environment to the development of literacy skills was confirmed when learners scores showed that the better the physical literacy learning environment, the higher the literacy scores of the learners. (Copple & Bredekamp, 2009; DeVries, 2012; Miller & Cunningham, 2009), support the research findings they argue that the physical literacy learning environment and its elements are directly linked to numerous outcomes for students which include social and academic learning and skill development.

In conclusion to this hypothesis, there was a statistically significant relationship between the physical literacy learning environment and literacy skills development.

5.2 Relationship between the social literacy learning environment and children's literacy skills development

Based on the findings, social literacy learning environment and children's literacy skills development included: peer to peer interactions, including but not limited: Pair work, group work, individual work, whole class work, among others; Teaching groups comprised of: small groups, large groups and whole class

The findings of this study showed statistically that the social literacy learning environment had a significant influence on children's literacy development at a correlation coefficient (r =. 468; p<0.05). These results agree with the social constructivist theories of learning that assumes that children learn from hearing others thoughts and ideas, and from articulating their own emerging understandings. This interaction may encompass the sharing

of ideas and approaches during whole- class lessons, or working together in small- group activities Vygotsky, (1978).

Much as this is recommended, the study findings reveal that most teachers do not provide small group activities during literacy lessons they mainly use the whole class method and most classrooms are set up for whole class literacy activities.

The study found out that 58.3% of teachers, 66.7% of parents and 75% of the children agreed that use of pair work, group work, individual work according to ability of children was critical in literacy skills development of children. Good,(1992) also agreed with the study findings. He stated that, when learners are encouraged to interact and exchange ideas with each other, they have opportunities to justify, evaluate and refine their own position and to gain exposure to other possibilities.

Research findings also found that 41.7% of teachers, 33.3% of parents and 25% children confirmed that use of groups during literacy lessons would help promote literacy skills development in lower primary. Research also showed that groups of various sizes open up different opportunities for social interaction and learning. Small groups allowed more time for interaction with individual children and were ideal for teaching new skills and providing feedback. Additionally, small groups offered more opportunities for children to practice their language skills and for teachers to facilitate children's communication development. The importance of the social literacy learning environment for literacy skills development was proved when children who were taught in small groups performed better in literacy than those who were taught as a whole class.

5.3 Relationship between the temporal literacy learning environment and children's literacy skills development

The findings of this study found statistically that there is a significant relationship between the temporal literacy learning environment and children's literacy skills r= .139, p< 0.05 level of significance.

The study found that 58.3% of teachers and parents and 75% of the children agreed that having consistence class routines promotes the development of literacy skills The results are supported by DeAtiles, (2002), who noted that, consistent routines permit the children to focus on the language being used and on subject content being presented instead of trying to determine what is happening around them.

Research findings showed that 41.7% of teachers and parents and 25% of children affirmed that sequencing of events during the day in literacy activities would enhance literacy skills. The results confirm and agree with Kostelni, (2009), who proved that a predictable schedule helps with transitions from one activity to another and provides a sense of continuity from day to day. Children need to be taught the routines and schedules and what they are expected to do during activities and during transitions. Clear expectations help children know how to participate in all classroom activities in a more meaningful way and decrease the likelihood of challenging behaviors.

In relation to hypothesis, there is a statistically significant relationship between the temporal literacy learning environment and children's literacy skills development in lower primary classes.

5.4 Conclusions

The study made the following conclusions;

There is a statistically significant relationship between the physical literacy learning environment and children's literacy skills in lower primary classes in lower primary classes in the Nakawa Division, Kampala District

It was also concluded that there is a statistically significant relationship between the social literacy learning environment and children's literacy skills in lower primary classes in the Nakawa Division, Kampala District. This was discovered during classroom observations.

It was further concluded that there is a statistically significant relationship between the temporal literacy learning environment and children's literacy skills in lower primary classes in lower primary classes in the Nakawa Division, Kampala District

5.5 Recommendations

Based on the findings in this research there are a number of recommendations for teachers and other stakeholders in education. Since the study found out that the physical literacy learning environment influences literacy skills development in lower primary classes in Nakawa Division, it is recommended that trainings and refresher courses on how to develop and use literacy learning materials as well as how to plan appropriate literacy activities according to children's abilities be provided to teachers so as to improve literacy performance.

It is also recommended that workshops on how to set up literacy centers in classes be provided to teachers in Nakawa Division as well as school learning visits be planned so that teachers can share views and have an experience of how other literacy classes are setup in relation to their classes.

Teachers and education planners should put into account some of the following recommendations as given below when setting up the physical literacy learning environment;

Teachers should make sure that all children are visible to adults and that adults are visible to children, to ensure proper supervision.

(See fig 6 in Appendices).

Teachers should design areas with spaces for children to work and play independently or in small groups, and to gather as a community.

Teachers should provide enough materials within the centres so that children can be engaged and not arguing over limited resources.

Provide a reading area that is attractive in the class to encourage children to read independently and to develop a reading culture in children.

(See figure 7 in Appendices).

Teachers should display children's work so that they can take pride in it and can feel a sense of ownership of the room. Doing this also offers opportunities for language development: When children talk about their work or comment on other children's work, teachers can use these opportunities to build their language skills.

(See figure 8 in Appendices).

In relation to the social literacy learning environment, the researcher recommends that refresher courses, workshops and trainings be given to teachers to sensitize them on the importance of the peer to peer interactions by use of pair work, group work during literacy lessons.

The study also recommends that teachers in Nakawa Division are made aware of the use of teaching in small groups and how to set up literacy classes by use of grouping through trainings and school visits. This will create a change in the mindset of teachers from teaching literacy and providing literacy activities as a whole class to the use of small groups. This will enable teachers to easily assess the ability of learners and make the necessary interventions to

those who need scaffolding hence improving literacy levels in schools. (**See Figure 9 in Appendices).**

The study also recommends that teachers and education planners need to be made aware of the importance of having daily routines and schedules in class through workshops so as to promote consistence hence raising learners' performance in literacy.

5.6 Areas recommended for further research

Further studies should be conducted to find out other factors that contribute to literacy skills development other than the Literacy learning environment since statistics showed that it only contributes 69% to children's literacy development in lower primary.

This study was conducted in one municipality of Kampala City Council and the findings generalized to other parts of the country. There is a need for another study to be carried out in other districts to establish the relationship between the Literacy Learning environment and children's literacy skills in lower primary classes.

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APPENDIX A: DOCUMENT REVIEW OF END OF TERM LITERACY EXAMS

Dear participant,

All information regarding the children's performance in literacy is used for research purposes and you will not be held accountable for providing them. The researcher intended to get literacy results of any ten children in your class and these were randomly chosen.

APPENDIX B: OBSERVATION CHECKLIST

Dear Participant,

This observation checklist is meant to collect information on the physical, social and temporal literacy learning environment in your classroom. All information collected is used for research purposes.

Observation Check List on physical learning literacy Environment

The scores will be from 4 to 1. 4 standing for the most vital learning tick where appropriate.

Learning Materials:

Staged Readers	4	
Phonic Word Cards	3	
Reading Books	2	
Alphabet Posters	1	

Literacy Activities:

Book Reading	4	
Drawing& Writing	3	
Story Telling	2	
Songs/ Rhymes	1	

Classroom Setup:

Library Centre/ Corner	4	
Reading Centre	3	
Writing Centre	2	
Play Centre	1	

Observation Checklist on Social Literacy Learning Environment

Teachers Groupings:

Small Groups	3	
Large Groups	2	
Whole Class	1	

Peer to Peer Interactions

Pair Work	4	
Group Work	3	
Individual Work	2	
Whole Class Work	1	

Observation Checklist on Temporal Literacy Environment

Timing: Length of Literacy Hour

60 Minutes	4	
45 Minutes	3	
30 Minutes	2	
15 Minutes	1	

Sequence of Events:

Evidence of timetable	1	
Evidence of daily visual routine	2	

Routine of Literacy Activities:

Free Choice Activities	4	
Circle Time	3	
Activity Time	2	
Play Time	1	

APPENDIX C: INTERVIEW GUIDE

Dear participant, all information regarding the children's performance in literacy is used for research purposes and you will not be held accountable for providing them. The researcher intends to get literacy results of any ten children in your class they will randomly be chosen. Your participation in this interview is highly appreciated. Thank you.

1. Name of Institution……………………

2. What is your Gender?

   a) Male   ☐   b) Female   ☐

3. Under what category of participants do you fall?

a) Teacher ☐   b) Parent ☐   c) Student ☐

4. Which of these do you consider as the most vital for conducive physical literacy learning environment? (Mark the most vital as 1, next 2 then 3)

Item	Percentage (%)
Teaching/Learning Materials (Staged readers, phonic word cards, reading books, literacy charts)	
Teaching/ Learning Activities (Book reading, drawing/writing, storytelling, songs/ rhymes)	
Classroom arrangement: Different learning centers, labeled literacy materials, display of children's work.	

Which of these do you consider as the most vital in the social literacy learning environment

(Mark the most vital as 1, next 2)

Item	Percentage (%)
Teachers groups Small groups, large groups, whole class	
Peer to Peer interactions Pair work, group work, individual work whole class work	

Which of these do you consider as the most vital in the temporal literacy learning

environment? (Mark 1 as most vital and next 2)

Item	No of responses	Percentage (%)
Sequence of events Evidence of a timetable, evidence of daily visual routine		
Daily Routine of literacy activities Free play, Circle time, Activity time, Playtime		

5. Give your views on the following in relation to your class or your child's class.

a) The physical literacy learning environment

b) The social literacy learning environment

c) The temporal literacy learning environment

APPENDIX D:

CHILDREN LITERACY SCORES AND LITERACY LEARNING

ENVIRONMENTSCORES

Literacy scores of children out of 100%	Physical environment scores out of 30	Social environment scores out of 16	Temporal environment scores out of 23
65	10.00	2.00	8.00
18.00	10.00	2.00	8.00
9.00	10.00	2.00	8.00
12.00	10.00	2.00	8.00
10.00	10.00	2.00	8.00
17.00	10.00	2.00	8.00
18.00	10.00	2.00	8.00
16.00	10.00	2.00	8.00
70.00	10.00	2.00	8.00
18.00	10.00	2.00	8.00
32.00	7.00	2.00	8.00
41.00	7.00	2.00	8.00
23.00	7.00	2.00	8.00
88.00	7.00	2.00	8.00

10.00	7.00	2.00	8.00
46.00	7.00	2.00	8.00
54.00	7.00	2.00	8.00
10.00	7.00	2.00	8.00
20.00	7.00	2.00	8.00
50.00	7.00	2.00	8.00
82.00	10.00	2.00	8.00
99.00	10.00	2.00	8.00
66.00	10.00	2.00	8.00
73.00	10.00	2.00	8.00
33.00	10.00	2.00	8.00
55.00	10.00	2.00	8.00
34.00	10.00	2.00	8.00
55.00	10.00	2.00	8.00
61.00	10.00	2.00	8.00
31.00	10.00	2.00	8.00
54.00	12.00	2.00	8.00
53.00	12.00	2.00	8.00

46.00	12.00	2.00	8.00
38.00	12.00	2.00	8.00
16.00	12.00	2.00	8.00
35.00	12.00	2.00	8.00
9.00	12.00	2.00	8.00
10.00	12.00	2.00	8.00
12.00	12.00	2.00	8.00
11.00	12.00	2.00	8.00
64.00	10.00	2.00	7.00
70.00	10.00	2.00	7.00
48.00	10.00	2.00	7.00
82.00	10.00	2.00	7.00
28.00	10.00	2.00	7.00
62.00	10.00	2.00	7.00
26.00	10.00	2.00	7.00
84.00	10.00	2.00	7.00
66.00	10.00	2.00	7.00
42.00	10.00	2.00	7.00

27.00	10.00	2.00	7.00
25.00	10.00	2.00	7.00
16.00	10.00	2.00	7.00
13.00	10.00	2.00	7.00
30.00	10.00	2.00	7.00
23.00	10.00	2.00	7.00
23.00	10.00	2.00	7.00
20.00	10.00	2.00	7.00
60.00	10.00	2.00	7.00
42.00	10.00	2.00	7.00
26.00	10.00	2.00	7.00
74.00	10.00	2.00	7.00
36.00	10.00	2.00	7.00
44.00	10.00	2.00	7.00
90.00	10.00	2.00	7.00
28.00	10.00	2.00	7.00
82.00	10.00	2.00	7.00
42.00	10.00	2.00	7.00

2.00	10.00	2.00	7.00
20.00	10.00	2.00	7.00
13.00	10.00	6.00	8.00
2.00	10.00	6.00	8.00
7.00	10.00	6.00	8.00
5.00	10.00	6.00	8.00
4.00	10.00	6.00	8.00
6.00	10.00	6.00	8.00
7.00	10.00	6.00	8.00
21.00	10.00	6.00	8.00
7.00	10.00	6.00	8.00
61.00	10.00	6.00	8.00
67.00	14.00	5.00	12.00
52.00	14.00	5.00	12.00
85.00	14.00	5.00	12.00
73.00	14.00	5.00	12.00
88.00	14.00	5.00	12.00
91.00	14.00	5.00	12.00

82.00	14.00	5.00	12.00
85.00	14.00	5.00	12.00
88.00	14.00	5.00	12.00
94.00	14.00	5.00	12.00
85.00	14.00	5.00	12.00
72.00	10.00	7.00	8.00
80.00	10.00	7.00	8.00
65.00	10.00	7.00	8.00
88.00	10.00	7.00	8.00
55.00	10.00	7.00	8.00
79.00	10.00	7.00	8.00
68.00	10.00	7.00	8.00
52.00	10.00	7.00	8.00
48.00	10.00	7.00	8.00
45.00	10.00	7.00	8.00
75.00	23.00	9.00	8.00
84.00	23.00	9.00	8.00
90.00	23.00	9.00	8.00

84.00	23.00	9.00	8.00
40.00	23.00	9.00	8.00
96.00	23.00	9.00	8.00
66.00	23.00	9.00	8.00
86.00	23.00	9.00	8.00
94.00	23.00	9.00	8.00
94.00	23.00	9.00	8.00
80.00	19.00	7.00	8.00
92.00	19.00	7.00	8.00
72.00	19.00	7.00	8.00
94.00	19.00	7.00	8.00
52.00	19.00	7.00	8.00
66.00	19.00	7.00	8.00
67.00	19.00	7.00	8.00
62.00	19.00	7.00	8.00
21.00	19.00	7.00	8.00
68.00	19.00	7.00	8.00
93.00	12.00	7.00	8.00

79.00	12.00	7.00	8.00
77.00	12.00	7.00	8.00
84.00	12.00	7.00	8.00
70.00	12.00	7.00	8.00
64.00	12.00	7.00	8.00
59.00	12.00	7.00	8.00
33.00	12.00	7.00	8.00
43.00	12.00	7.00	8.00
50.00	12.00	7.00	8.00
84.00	10.00	7.00	8.00
22.00	10.00	7.00	8.00
14.00	10.00	7.00	8.00
52.00	10.00	7.00	8.00
74.00	10.00	7.00	8.00
84.00	10.00	7.00	8.00
16.00	10.00	7.00	8.00
23.00	10.00	7.00	8.00
55.00	10.00	7.00	8.00

29.00	10.00	7.00	8.00
64.00	7.00	5.00	8.00
28.00	7.00	5.00	8.00
84.00	7.00	5.00	8.00
52.00	7.00	5.00	8.00
92.00	7.00	5.00	8.00
74.00	7.00	5.00	8.00
86.00	7.00	5.00	8.00
44.00	7.00	5.00	8.00
60.00	7.00	5.00	8.00
90.00	7.00	5.00	8.00
15.00	7.00	7.00	8.00
68.00	7.00	7.00	8.00
75.00	7.00	7.00	8.00
40.00	7.00	7.00	8.00
65.00	7.00	7.00	8.00
58.00	7.00	7.00	8.00
60.00	7.00	7.00	8.00

83.00	7.00	7.00	8.00
76.00	7.00	7.00	8.00
40.00	7.00	7.00	8.00
94.00	28.00	12.00	14.00
92.00	28.00	12.00	14.00
90.00	28.00	12.00	14.00
85.00	28.00	12.00	14.00
94.00	28.00	12.00	14.00
93.00	28.00	12.00	14.00
96.00	28.00	12.00	14.00
96.00	28.00	12.00	14.00
94.00	28.00	12.00	14.00
95.00	28.00	12.00	14.00
97.00	24.00	8.00	6.00
94.00	24.00	8.00	6.00
85.00	24.00	8.00	6.00
94.00	24.00	8.00	6.00
94.00	24.00	8.00	6.00

70.00	24.00	8.00	6.00
94.00	24.00	8.00	6.00
85.00	24.00	8.00	6.00
79.00	24.00	8.00	6.00
96.00	24.00	8.00	6.00
94.00	21.00	7.00	8.00
92.00	21.00	7.00	8.00
74.00	21.00	7.00	8.00
98.00	21.00	7.00	8.00
86.00	21.00	7.00	8.00
30.00	21.00	7.00	8.00
40.00	21.00	7.00	8.00
46.00	21.00	7.00	8.00
64.00	21.00	7.00	8.00
86.00	21.00	7.00	8.00
90.00	20.00	7.00	8.00
81.00	20.00	7.00	8.00
79.00	20.00	7.00	8.00

71.00	20.00	7.00	8.00
85.00	20.00	7.00	8.00
84.00	20.00	7.00	8.00
90.00	20.00	7.00	8.00
89.00	20.00	7.00	8.00
83.00	20.00	7.00	8.00
91.00	20.00	7.00	8.00
90.00	23.00	10.00	8.00
88.00	23.00	10.00	8.00
76.00	23.00	10.00	8.00
74.00	23.00	10.00	8.00
64.00	23.00	10.00	8.00
89.00	23.00	10.00	8.00
94.00	23.00	10.00	8.00
69.00	23.00	10.00	8.00
74.00	23.00	10.00	8.00
78.00	23.00	10.00	8.00
76.00	23.00	10.00	8.00

88.00	18.00	4.00	4.00
84.00	18.00	4.00	4.00
96.00	18.00	4.00	4.00
90.00	18.00	4.00	4.00
94.00	18.00	4.00	4.00
75.00	18.00	4.00	4.00
62.00	18.00	4.00	4.00
88.00	18.00	4.00	4.00
99.00	18.00	4.00	4.00
76.00	18.00	4.00	4.00
62.00	10.00	2.00	8.00
62.00	10.00	2.00	8.00
75.00	10.00	2.00	8.00
55.00	10.00	2.00	8.00
64.00	10.00	2.00	8.00
74.00	10.00	2.00	8.00
78.00	10.00	2.00	8.00
54.00	10.00	2.00	8.00

38.00	10.00	2.00	8.00
55.00	10.00	2.00	8.00
50.00	10.00	4.00	6.00
71.00	10.00	4.00	6.00
40.00	10.00	4.00	6.00
95.00	10.00	4.00	6.00
79.00	10.00	4.00	6.00
78.00	10.00	4.00	6.00
55.00	10.00	4.00	6.00
75.00	10.00	4.00	6.00

APPENDIX E: GALLERY

Figure 6: Proposed literacy setup and arrangement of a Classroom

Figure 7: Proposed setup of reading area in a literacy class

Figure 8: Proposed display of children's work

Figure 9: Proposed setup of a literacy class for groupings in class