Assessment of how Learning Environment Enhances Pupils' Learning Abilities in Green Pastures School, Kibra Constituency

Rachel Mbula Muteti
Lecturer, Africa International University
Email: rachelmuteti@gmail.com

Abstract

The learning environment is critical in enhancing the learning process because it ensures meeting all learners' learning needs and abilities. The learning environment encompasses factors such as; the physical setting, resources and teaching approaches used in the classroom. Only when a teacher is aware of their pupils' strengths, needs, and learning styles can she choose the most appropriate learning materials and approaches. The study sought to ascertain the extent to which learning environments create opportunities for pupils to learn. The study adopted a qualitative case study design. The study location was Green Pastures Junior School, Kibra constituency in 2018, and data was collected using observation and interview guides among all six teachers who serve in the section. Five out of six teachers created a favourable learning environment. These teachers nurtured an excellent interaction with pupils by moving around the class, helping them in their tasks while addressing pupils by name. The teachers also had a wide range of teaching resources in their classrooms. These teachers could create learning opportunities for the most diverse pupils within the Multiple Intelligence continuum in a classroom context. The study concluded that a conducive learning environment facilitates and integrates approaches that meet all learners' needs and interests. Therefore, intentional decisions ought to be made by the teachers in creating a favourable learning environment. The recommendations were that curriculum developers should engage all learners according to their abilities, and develop an integrated curriculum which includes kinaesthetics and other aspects of the Multiple Intelligences Theory. The school administration should provide an encouraging learning environment for all pupils.

Keywords: *Learning environment, pupils' learning abilities, Kibra, Green Pastures school*

1.0 Introduction

An appropriate learning environment meets students' learning needs, abilities, and interests by boosting their concentration, motivation, independence, confidence, multiple skill acquisition, and high-order thinking skills (Walsh & Gardner 2005; Jindal-Snape et al., 2013). Teachers should set out to meet all their learners' needs by creating opportunities that appeal to various learner interests and capabilities.

However, teachers face challenges as they teach diverse learners. Some children are more precocious than others, with higher problem-solving ability than the rest (Berk, 2004). One pupil may read and write a sentence in a nursery class, while some might be struggling to write two-letter words. Gangi (2011) points out that teachers must be creative and innovative to accommodate all these abilities. An effective way of doing this is by differentiated instruction (Slavin, 2009) and especially the use of Multiple Intelligence (MI) based approaches.

Multiple Intelligence (MI) based approaches consider several intelligence aspects that learners use to synthesize new information. These intelligence include visual, auditory, kinaesthetic, mathematical, interpersonal, intrapersonal, naturalistic and musical. Several studies support the use of the MI-based approach in enhancing learning. Freedman (2015) showed that effective integration of MI and differentiation in the classroom increases students' motivation and engagement.

MI's effectiveness works in establishing an ideal learning environment with relevant teaching strategies, activities and resources. This approach communicates to pupils that they are valued (Santor, 2004). The teacher will help each pupil build their abilities and skills and strengthen their competencies and aptitudes during the learning process.

1.1 Statement of the Problem

Armstrong (2000) observes that no two class learners have the same thinking and problem-solving skills. Every learner has their preferred way of learning, depending on their interest and strength. A teacher who creates a favourable learning environment enhances the teaching and learning process and ultimately meets most learners' needs.

Unfortunately, in many schools, teachers disregard the diverse learning styles of their students. Okoth (2014) posited that teachers use the same teaching approaches in all classes without being mindful of their needs and strengths. Such a scenario should never be the case, the teacher's role being to ensure meeting diverse learners' needs.

Uniform teaching methods result in several problems. Some learners take longer to understand the content while teachers have a more challenging time teaching, giving rise to frustrations in both the tutor and the learners. One way to solve this problem is for teachers to create a conducive learning environment that incorporates Multiple Intelligence-based approaches that meet all learners' needs and interests.

Several studies support creation of a conducive environment that enhances learning. Richards (2016) explored the integration of MI theory in early childhood curriculum and advocated for teachers to do the same to enhance pupils' learning environment. Hanafin (2014) did a study that found that when teachers use MI theory, it creates a favourable learning environment that motivates learners to understand the concepts taught in class. These approaches boost their self-esteem and make their learning process more enjoyable. There is ample evidence to support the perception that creating a favourable learning environment meets all learners' learning needs and interests.

In Kenya, there are limited studies on creating a conducive learning environment concerning MI-based approaches. However, Nassiuma, Kindiki, and Chumba (2017) have advocated for personalized development and self-fulfilment among students to meet

educational goals. They argued that school managers were not meeting students' learning needs using MI-based approaches.

There is a need for a study to assess whether early childhood teachers in Kenya create a conducive learning environment in classrooms. The early childhood development period is a sensitive stage of growth. Suppose teachers engage poor planning of the learning environment. In that case, some pupils will move to the next class with unmet learning needs and possibly with insufficient understanding of basic concepts such as reading and writing.

1.2 Research Question

How does the learning environment create learning opportunities for all pupils across a range of their abilities?

2.0 Theoretical Review

2.1 Multiple Intelligence Theory

Howard Gardner "studied Binet's standardized IQ test that measured intelligence" (Armstrong, 2016), which "measured intelligence through the chronological age and maturation of a person" (Harwood, Miller & Vasta, 2008). Gardner developed a theory that he thought would fit all people. He stressed that the verbal and academic skills are essential in schools to "…assess quantitative reasoning, fluid reasoning, visual-spatial processing, knowledge and working memory" (Harwood et al., 2008, p. 329). Besides, Gardner believed that humans possess at least eight distinct intelligences collectively defined as "the ability to solve problems or fashions products that are of consequence in a particular setting" (Harwood et al., 2008). Although Binet's test was not majorly focusing on education, it helped Gardner develop the Multiple Intelligence (MI) Theory.

The MI theory states that human beings have varied intelligence, which helps them interpret things differently. Gardner perceived that human beings had a greater potential, but were only constrained to a few aspects of their intelligence. He argued that schools mostly focused on assessing the pupils on logic-mathematical and linguistic intelligence only. If a child was accessed in any of these intelligences and failed, he was considered a failure (Armstrong, 2016). Assessment of pupils should focus on all potentials and not only on the two intelligences.

3.0 Empirical Review

3.1 Learning Environment

The learning environment includes the physical structure, the social, emotional and intellectual atmosphere of the learning context. To create a favourable learning environment, one has to demonstrate creativity and innovation when preparing for teaching, selecting appropriate teaching methods, activities and resources.

The learning environment of pre-schoolers should be child-friendly to promote high levels of learning. Essa (2014) notes that the physical environment should not be wet but needs to be dry with varying child-sized equipment, while the learning environment should have pleasing colours, child-sized furniture and appropriate learning materials. On the same note, equipment and materials need to be in an orderly manner. The classrooms should be spacious, as shown in Figure 1. Simultaneously, the classroom must be clean and level to allow learners' and teachers' easy and secure movement. According to the Teachers' Service Commission (TSC), a classroom should have a teacher-pupil ratio of 1:40. Such an environment facilitates the learning process by stimulating the learners' senses, enhancing their motor development and promoting their sense of security (McDevitt & Ormrod, 2004; Woolfolk, 2007).

Figure 1: Favourable classroom for bodily kinaesthetic learners

Sourcehttps://www.pinterest.com/kimberly5703/

4.0 Methodology

The study adopted a qualitative case study design. The target population of the study was all six teachers at Green Pastures Junior School in Kibra Constituency, which is part of Nairobi County in Kenya. Data was collected using observations and interviews scheduled and later analyzed using descriptive analysis.

5.0 Results and Discussion

After analysis of data collected in response to the research question, the following themes emerged:

1. Teacher-pupil interaction
2. Teaching resources
3. Varied activities
4. Different teaching approaches
5. Teachers' considerations for choice of teaching methods

5.1 Teacher-pupil Interaction

The study found that only one of six teachers did not interact well with the pupils, and Table 1 and 2 summarise the teacher-pupil interactions.

Table 1: Teachers interaction with pupils

Category	***Observed behaviour as teacher interacted with pupils***

T1	Squatted to the level of the pupils and touched them as they talked; assisted pupils in letter construction, assigned groups, work to do number construction
T2	Squatted to the level of the pupils and touched them as they talk, assisted pupils in letter construction
T3	Moved around the classroom, assisting pupils in doing addition sums
T4	She moved closer to a crying pupil, called her name, squatted and talked to her in a lower voice as she empathized with her, wiped her tears, gave her some water and requested her to lie down for a short while
T5	Stood in front of the classroom for the entire lesson, pointing at learners with a cane. There was minimum interaction with the pupils
T6	Moved down the aisle hurriedly, oblivious that one pupil had a problem doing a class task. After some time, the teacher noticed this pupil's action and called him to stand next to her table, and the teacher read the assignment loudly to him.

Table 2: Tabulated summary of teacher-pupil interactions

Description	**Good Interaction**	**Limited interaction**
Teachers	5	1
Total	5	1

5.2 Teaching Resources

This study found that all classrooms had the following teaching resources: wall hangings of alphabets, science pictures, numbers and a calendar as well as assorted stationery such as crayons, coloured pencils and moulding clay for use by the pupils were also available. Additionally, the classrooms had movable furniture, such as tables, desks and chairs, while two rooms had game equipment. However, none of the classrooms had music instruments or equipment used by pupils' to process information through music intelligence. Table 3 shows what factors the teachers considered in their choice of teaching resources and equipment.

Table 3: What teachers consider when choosing teaching resources

Category	***Considerations made***
T1	I usually go through the class register, name by name and reflect on the pupils' abilities, needs and interest.

T2	I consider the lesson I will teach, then I look at the pupils' abilities and the things that they struggle with and thus choose resources that can promote individualized learning
T3	To choose to teach, I go through the syllabus, then prepare a lesson plan and Schemes of Work to see what I need for teaching
T4	After going through the lesson plan, I evaluate how my pupils learn, to know what resources I need
T5	I consider pupils' age and developmental milestones to know the resources I need, quantity and sizes.
T6	I consider the learning preferences to enhance the learning process and ensure meeting all pupils' needs in the classroom.

5.3 Varied Activities

The study found out that teachers were using various activities as they taught in their respective classrooms. A summary of findings tabulated in Table 4.

Table 4: Varied Activities

Category	***Learning Activities***	***Related Intelligence***
T1	Number counting and construction, matching shapes and letters	Linguistic, visual, mathematical, Kinaesthetic
T2	Read along, letter construction	Mathematical, kinaesthetic
T3	Addition problem solving	Mathematical
T4	Writing three-letter words from the board to the book	Linguistic, visual
T5	Singing and dancing	Linguistic, musical
T6	Writing three-letter words from the board to the book	Linguistic, visual

5.4 Different Teaching Approaches

The study found that most teachers were using teaching approaches that catered more to learners' interests and abilities of pupils who were more linguistic, visual, mathematical,

and catered less for students with musical, kinaesthetic and interpersonal intelligence. Table 5 shows a summary of the teaching approaches.

Table 4: Different teaching approaches

Category	***Teaching Approaches***	***Learning Activities***	***Related Intelligence***
T1	Direct instruction, recitation, class participation, teacher-led demonstration, cooperative learning, read-along	Number counting and construction, matching shapes and letters	Linguistic, visual, mathematical, kinaesthetic
T2	Direct instruction, teacher-led demonstration,	Letter recitation and construction	Mathematical, kinaesthetic
T3	Direct instruction, question and answer, class participation	Addition sums	Mathematical
T4	Direct instruction, recitation, teacher-led demonstration, class participation	Writing three-letter words	Linguistic, visual
T5	Direct instruction, recitation, teacher-led demonstration, class participation	Singing and dancing	Linguistic, musical
T6	Direct instruction, recitation, teacher-led demonstration,	Writing three-letter words	Linguistic, visual

4.5 Teachers' Considerations for Choice of Teaching Methods

This study sought to determine what factors the teachers considered when choosing what teaching methods to adopt. Table 6 and Table 7 have a summary of all the responses.

Table 5: Teachers' considerations in their choice of teaching methods

Category	***Responses***	***Learning Activities***	***Related Intelligence***
T1	*"Some children like to touch and manipulate things, so I will have pencils and books for writing and also moulding clay and blocks for construction the letters and numbers and shape matching."*	Number counting and construction, matching shapes and letters	Linguistic, visual, mathematical, kinaesthetic

T2	*"Motor development, lesson to be taught and pupils' abilities."*	Read along, letter construction	Mathematical, kinaesthetic
T3	*"The age, competences of the pupils and lesson to be taught."*	Addition sums	Mathematical
T4	*"The age of the pupils, class level, and how best they understand the lesson."*	Writing three-letter words	Linguistic, visual
T5	*"Pupils' learning abilities and needs."*	Singing and dancing	Linguistic, musical
T6	*"The age of the pupils in the class I am teaching and how best they can learn."*	Writing three-letter words	Linguistic, visual

Table 6: Tabulated summary of the considerations

Description	**Considering pupils abilities**	**Not considering pupils abilities**
Teachers	5	1
Total	5	1

5.5 Summary of the Findings

To create a favourable learning environment at Green Pastures School, the researcher examined several items: classroom organization concerning learning abilities, teachers-pupil interaction, teaching resources, classroom adjustment, and consideration of teaching resources and equipment. The study found out that a poor class organization interfered with the pupils' learning process. The classes were small, and they restricted the teachers' and pupils' free movement and thus affected the learning environment. The teachers-pupil interaction rated very good, since the teacher pupil ration was 1:25. Five out of six teachers interacted well with the pupils. On the same note, though the teachers made considerable adjustments in the classroom while teaching, the teaching resources were not adequate to meet all learners' learning process. Though the teachers indicated that they do prior preparations and do significant considerations in choosing the resources and equipment, more emphasis was on pupils who have heightened visual, numbers, and language skills over the rest of the capabilities.

6.0 Conclusion

The study concluded that a conducive learning environment facilitates and integrates approaches that meet all learners' needs and interests. Thus, intentional decisions had to be made by the teachers in creating a favourable learning environment.

7.0 Recommendations

The curriculum developers should engage all learners according to their abilities and create a favourable learning environment for all learners; the curriculum designers must

develop an integrated curriculum that promotes all learners' needs. The school administration should provide a favourable learning environment for all pupils.

8.0 References

Armstrong, T. (2000). *In the Classroom 2nd Ed.* Virginia: Association of Supervision and Curriculum Development.

Armstrong, T. (2016). Multiple Intelligences by Dr Thomas Armstrong. http://www.institute4learning.com/multiple_intelligences.php. Accessed August 9, 2016.

Berk, L. E. (2004). *Awakening children's minds: How parents and teachers can make a difference*. Oxford University Press, USA.

Essa, E. (2014). *Introduction to Early Childhood Education*. 7e ed. Belmont, CA: Wadsworth Cengage Learning.

Freedman, L. (2015). *Strategy: A history*. Oxford University Press.

Gangi, S. (2011). *Menomonie, WI Gangi, Suzanna Differentiating Instruction Using Multiple Intelligences in the Elementary School Classroom: A Literature Review Graduate Degree/Major: MS Education* (Doctoral dissertation, University of Wisconsin-Stout).

Hanafin, J. (2014). Multiple intelligences theory, action research, and teacher professional development: The Irish MI project. *Australian Journal of Teacher Education*, *39*(4), 126-141.

Harwood, R., Miller, S. A., & Vasta, R. (2008). *Child psychology: Development in a changing society*. Wiley Global Education.

Jindal-Snape, D., Davies, D., Collier, C., Howe, A., Digby, R., & Hay, P. (2013). The impact of creative learning environments on learners: A systematic literature review. *Improving schools*, *16*(1), 21-31.

Mcdevitt, T. M., & Ormrod, J. E. (2004). Cognitive Development 2: Cognitive Process. *Child Development Education and Working with Children and Adolescents 2nd ed. Pearson*, 91-8.

Nassiuma, D. M., & Kindiki, J. N. (2017). Alternative off school Business Models that Enhance Multiple Intelligences in Kenyan Schools.

Okoth, G.O. (2014). "Multiple Intelligence among Secondary School Learners in Kenya." Thesis, University of Nairobi. http://erepository.uonbi.ac.ke:8080/xmlui/handle/11295/77701.

Richards, D. R. (2016). The integration of the multiple intelligence theory into the early childhood curriculum. *American Journal of Educational Research*, *4*(15), 1096-1099.

Santor, L. (2004). How Can you Create a Learning Environment that Respects Diversity? NYSAEYC Report. New York.

Slavin, R. E. (2009). *Educational Psychology: Theory and Practice*. 9th ed. Upper Saddle River, NJ: Pearson Education Inc.

Walsh, G., & Gardner, J. (2005). Assessing the Quality of Early Years Learning Environments. *Early childhood research & practice*, *7*(1), n1.

Woolfolk, A. (2007). *Educational Psychology*. 10th ed. Annual Editions. Educ. Psychol: Pearson : Boston.