Original Research Article

Influence of learners' readiness and physical facilities on transition of learners with visual impairment from integrated pre-primary to primary schools in Narok County, Kenya.

ABSTRACT

Transition of pre-primary learners with visual impairment from integrated pre-primary to primary schools in Narok County has been low. Thus, the study assessed school dynamics influencing transition of learners with visual impairment from integrated pre-primary to primary schools in Narok County, Kenya. The study was based on the Ecological Systems Theory and Transition Theory. The study employed mixed methods approach and in turn used concurrent triangulation research design. The target population consisted of 16 headteachers, 3 Educational Assessment and Resource Centre (EARC) officers and 208 teachers and 160 learners with visual impairment all totalling to 387. The study adopted the Krejcie and Morgan (1970) sample size determination formula where a sample size of 266 respondents was sampled. The study used purposive and stratified sampling method to select the sample. 15 headteachers and three EARC Officers were sampled using purposive sampling. Stratified random sampling method was used to select 135 teachers while 113 learners were selected using simple random sampling. Questionnaires were used to collect data from teachers, interview guides were used to collect data from headteachers and EARC Officers while an observation checklist was used to collect data from the learners. Pilot testing of the instrument was done on 2 headteachers, one EARC officer, 12 teachers and 5 learners with visual impairment from the neighbouring Bomet County. Validity was established through expert judgement. Reliability was established using test re-test technique and reliability index, r = 0.867 was determined using Cronbach Alpha Method. The study established that learners' readiness and physical facilities influence transition of learners with visual impairment from integrated pre-primary to primary schools. The study recommends that Ministry of Education should redesign the teacher training curriculum to encompass components of special needs education to equip them with skills to handle and teach learners in integrated school microsystems. Ministry of Education should also allocate more funds to schools to enable the school management to provide adequate, but suitable physical facilities for

learners with visual impairment.

*Keywords: [*visual impairment, pre-primary, learners' readiness, physical facilities*]*

1. INTRODUCTION

The subject of children's transition is not new. However, the word transition lacks a precise definition. There have been different definitions of transition by various scholars; [1] defined transition as the progression of learners from one level of education to the next. According to [2], the movement from one level to the next is affected by factors such as: performance in exams, affordability and availability of space in the next level institution.

[3], defines transition by comparing quantitative indicators from different countries rates of special needs students thus making it very difficult to clearly conceptualize the transition rates in a country. Dunlop and Fabian [4]define transition as "being the passage from one place, stage, state, style or subject to another over time." Related in a very particular way, transition in pre-school education is explained as the period between the first entry to an educational setting for learning purposes and the final exit [4]. Educational transition refers to the transformation where children go from one stage or phase of education to the next over time. As early as 1852, a renowned philosopher and researcher, Friedrich Frobel designed a detailed system-like structure associating pre-school with primary school education. This became the groundwork for many scholars to discuss the concern of discontinuity in education and how to handle the gap in class level transition. Moreover, since 1960s, many European countries believed that learners' transition from pre-school to primary education was determined by the need to offer and implement a unified curriculum. The curriculum had been introduced to encompass both kindergarten and primary schools across the larger Europe [4].

Scholars have placed focus on determining various variables involved in this process which contribute to the current knowledge and understanding of the topic across the globe. There are potential effects this change can have in the preschoolers' transition into first grade as shown empirically in a variety of domains such as social, cognitive and emotional [5]. Research has also emphasized the important role a smooth transition plays in the children's later academic life in primary school [6]. Learners in preschools who have a smooth transition to first grade can have positive long-term effects in academic performance and personal development of the child as studies have shown [7]. Early childhood transitions are very important since they set the stage for all future transitions.

1.1 Purpose of the Study

The purpose of the study was to assess the influence of learners' readiness and physical facilities on transition of learners with visual impairment from integrated pre-primary to primary schools in Narok County, Kenya.

1.2 Objectives of the Study

The study was guided by the following objectives: -

1. To establish the influence of learners' readiness on transition of learners with visual impairment from integrated pre-primary to primary schools in Narok County, Kenya.

2. To examine the influence of physical facilities on transition of learners with visual impairment from integrated pre-primary to primary schools in Narok County, Kenya

2. RESEARCH METHODOLOGY AND DESIGN

This section provides the methodology that the study followed. It explains the design; location of study; population; sample size, sampling techniques and procedure; data collection instruments; methods of testing the validity and reliability of instruments; the research procedure that was followed; and the data management and analysis techniques that were used in conducting the study.

2.1 Research Methodology

According to [8] the mixed methods research design has philosophical assumptions as well as methods of inquiry. The design is characterized by the fact that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems. This study employed a mixed methodology, where both quantitative and qualitative methods were employed.

2.2 Research Design

This study adopted a descriptive survey design. A descriptive research design attempts to establish the actual state of affairs as it exists at present. It seeks to examine the opinion and views of respondents who are targeted for the study [9]. States that the descriptive survey research requires the collection of standardized quantifiable information from all members of a population or a sample.

2.3 Location of Study

The study was carried out in Narok County which comprises of 6 educational divisions namely: Mao Central, Ololulunga, Mulot, Osupuko, Loita, Transmara East and Transmara West. Singleton (1993) [10] points out that in choosing a study locale, the recommendable study setting should be directly linked to the researcher's interest.

2.4 Target Population

Target population was drawn from the 16 integrated pre-primary and primary schools in Narok County. According to the county education statistics, the 16 schools consists of 208 teachers, 16 head teachers, 160 learners with VI and 3 Education Assessment and Resource Center Officers (EARC Officers) bringing the target population to 387 as shown in Table 1.

Table 1: Target Population of the Study

Categories	Target Population
Headteachers	16
Teachers	208
EARC Officers	3
Learners	160
Total	**387**

Source: Narok County Education Office (2019)

2.5 Sample Size and Sampling Techniques

The determination of the sample size for the study was guided by the Central Limit Theorem of Sample Size Determination, which states that, for any study normally distributed population, the sample size should always be greater than 30 ($N \geq 30$) [11]. This study used a mixed method sampling technique which involved the selection of units or cases for a research study using both probability sampling and purposive sampling strategies.

2.6 Research Instruments

These are tools which were used to collect information about the definite set themes of research objectives. The instruments used included questionnaires, interview guide and observation checklist.

3. RESEARCH FINDINGS AND DISCUSSIONS

3.1 Descriptive Statistical Findings on the Influence of Learners' Readiness on Transition of learners with visual impairment from Integrated pre-primary to primary Schools

The descriptive statistics on the influence of learners' readiness on transition of learners with visual impairment was collected from teachers and represented in table 2 below;

Table 2: Aspects of Readiness of Learners with Visual Impairment for Transition

		Count	Column N %
Aspect of readiness which you often consider when transitioning learners with visual impairment from integrated pre-primary to primary schools	Orientation and mobility	39	30.2%
	Social competence	42	32.6%
	Ability for exploration	17	13.2%
	Communication skills	31	24.0%

Table 2 shows that majority of the respondents 42(32.6%) indicated social competence as a characteristic of readiness of the pre-primary learner to transit to primary level. A significantly high portion of the respondents 17(13.2%) indicated pre-primary learners' ability to explore while fewer 31(24.0%) indicated communication skills characteristics as a measure of the transition readiness among the learners. Mobility and orientation were also a characteristic of readiness at 39(30.2%). Similar views were expressed by the headteachers and EARC Officers. This implies that from the teacher's assessment, a good percentage of the learners with VI are usually not ready for transition on the four fronts that were being tested. This affects the learners' ability to cope in the new environment. These findings corroborate with the findings of a study carried by [12] which established that the characteristics of a learner's readiness for early childhood education empirically illustrates developed skills used in transitioning to pre-primary learners with visual impairment when starting school.

Table 3: The rate of readiness of learners with visual impairment to transition from integrated pre-primary to primary schools

		Count	Column N %
Rate levels of readiness of learners with visual impairment who transit from integrated pre-primary to primary schools	Ready (3)	77	59.7%
	Not ready (2)	38	29.5%
	Not sure (1)	14	10.9%

Most of the teachers indicated that readiness of learners with visual impairment to transition from integrated pre-primary to primary schools was average with a total count of 77(59.7%) while 38(29.5%) indicated that they were not ready and 14(10.9%) were undecided. This was tabulated as in table 3 below;

From table 3, it is clear that the rate at which the teachers indicated the readiness of learners with VI to transition from integrated pre-primary to primary schools was high with 59.7%. This implies that if the learners are given an enabling environment, transition is achievable.

Table 4: Views of the Teachers on the Influence of Learners' Readiness on Transition from Integrated pre-primary to primary Schools

	SD		D		U		A		SA	
	N	%	N	%	N	%	N	%	N	%

Physical readiness influence transition of learners from integrated pre-primary to primary schools	19	14.0	16	11.6	6	4.7	21	15.5	73	54.3
Manifesting social competence enables learners to transit from integrated pre-primary to primary schools	7	5.4	13	9.3	3	2.3	31	23.3	81	59.7
Learners with ability for exploration do not easily transit from integrated pre-primary to primary schools	36	26.4	11	8.5	5	3.9	21	15.5	62	45.7
Learners with ability for exploration easily transit from integrated pre-primary to primary schools	71	52.7	11	7.8	3	2.3	20	14.7	30	22.5
Learners with developed basic literacy skills find it difficult to transit from integrated pre-primary to primary schools	43	31.8	42	31.0	7	5.4	29	21.7	13	10.1

Table 4 shows that a majority, 73(54.3%), of the teachers strongly agreed that physical readiness influences the transition of learners from integrated pre-primary to primary schools. It is also noted that 21(15.5%) of the teachers agreed. However, only a paltry 6(4.7%) of the teachers were undecided, 16(11.6%) of the teachers disagreed, whereas 19(14.0%) of the teachers strongly disagreed. The results indicate that the physical readiness of the learners influences the rate of transition from integrated pre-primary to integrated primary school. This has implications on the current transition rates of learners from integrated pre-primary to primary schools. This agreed with the findings of Dunlop and Fabian [4]. They indicated that physical readiness is an essential aspect for the transition of learners from one level of education to the next.

The study revealed that 81(59.7%) of the teachers strongly agreed that Manifesting social competence enables learners to transit from integrated pre-primary to primary schools. 31(23.3%) of the teachers agreed. However, 3(2.3%) of the teachers were undecided, 13(9.4%) of the teachers disagreed, whereas 7(5.4%) of the teachers strongly disagreed. This indicates that it is easy for learners who can explore to transition from one level of learning to the next than those who have no power for exploration. This agrees with the findings of UNICEF (2012), which indicated that the physical environment is essential in enhancing the ability of exploration that is very important in strengthening transition from the integrated pre-primary to primary school.

Most of the teachers, 62(45.5%), strongly agreed with the view that learners with the ability for exploration easily transit from integrated pre-primary to primary schools. 21(15.5%) agreed. At the same time, 5(3.9%) of the teachers were undecided, 11(8.5%) of the teachers disagreed, whereas 35(26.4%) of the teachers strongly disagreed. This indicates that learners with the ability for exploration easily transition from one level of learning to the next, including the transition from integrated pre-primary to primary schools.

It was found out that learners with ability for exploration easily transition from integrated pre-primary to primary schools where over half of the 135 total respondents strongly disagreed where 71(52.7%) strongly disagreed, 11(7.8%) of the total respondents disagreed while 3(2.3%) of the respondents were actually undecided 20(14.7%) of the respondents agreed while 30(22.5%) of respondents agreed with this issues.

The study also found out that 13(10.1%) of the teachers strongly agreed with the view that learners with developed basic literacy skills find it difficult to transition from integrated pre-primary to primary schools. 29(21.7%) of the teachers agreed. At the same time, 7(5.4%) of the teachers were undecided, 42(31.0%) of the teachers disagreed whereas 43(31.8%) of the teachers strongly disagreed. When learners develop the basic literacy skill this is a very huge advantage towards the transition from integrated pre-primary to primary

schools where 69(45.9%) agreed while 7(5.1%) strongly agreed and this is a huge benefit to the learner. Some of the respondent noted that transition of learners is not only influenced by the development of basic literacy skills where 14(10.4%) and 13(9.6%) disagreed and totally disagreed. This shows that it should be considered as one of the main dynamics to be considered during the transition process.

3.2 Descriptive Statistical Findings on the Influence of Physical Facilities on Transition from Integrated pre-primary to primary Schools

The descriptive statistics on the influence of physical facilities on transition of learners with visual impairment was collected from teachers and represented in table 5 below;

Table 5: Availability of Physical Facilities in primary Schools

Items	Number of Teachers	
	F	
Modified desks	30	25.0
Modified chairs	27	22.5
Classrooms	49	40.5
Resource centers	43	35.5
Play materials	60	50.0
Pavements/Ramps	37	30.5

Table 5 shows that only a quarter, 30(25.0) of the teachers indicated that modified desks are available, 27(22.5) indicated that modified chairs are available, 49(40.5) indicated that classrooms are available, 43(35.5) indicated that resource centres are available in primary schools. However, half, 60(50.0) of the teachers indicated that play materials for learners with visual impairment are available whereas only 37(30.5) indicated that pavements/ramps have been designed to accommodate learners with visual impairment. The results indicated that most of the integrated schools lacked the necessary physical facilities to enhance learning and hence transition of the learners. These findings are in agreement with the assertions of Ramadurai (2013) [13] who noted that to promote education for the visually impaired in India, there have been more inventive ways such as the introduction of mobile schools for the blind commonly referred to as Braille without border.

Table2: Views of teachers on the influence of physical facilities on transition of learners with VI from integrated pre-primary to primary Schools

	SD		D		U		A		SA	
Test Item	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**

Many primary schools have not adapted their physical facilities like modified desks and chairs to enhance the learning of children with visual impairment from integrated pre-primary to primary schools	30	22.5	7	5.4	3	2.3	13	9.3	82	60.5
In many pre-primary schools, classrooms have a small number of learners to enhance transition of learners with visual impairment from integrated pre-primary to primary schools	21	15.5	16	11.6	5	3.9	15	10.9	78	58.1
In pre-primary schools, playing fields and play materials that have been adapted for learners with visual impairment as a way of enhancing outdoor activities from integrated pre-primary to primary schools	72	53.5	15	10.9	6	4.7	11	7.8	31	23.3
Physical environment e.g. ramps and pavements and resource centres are instrumental in transition from integrated pre-primary to primary schools	4	3.1	6	3.9	3	2.3	31	23.3	91	67.4
Play materials have not been adapted for learners with visual impairment to enhance outdoor activities in integrated pre-primary and primary schools	5	3.7	23	17.0	30	22.2	58	43.0	19	14.1
The ramps in the integrated schools are instrumental in enhancing transition of learners with VI from integrated pre-primary to primary schools	10	7.4	24	17.8	30	22.2	63	46.7	7	5.2

Table 6 shows that 82(60.5%) of the teachers strongly agreed with the opinion that many primary schools have not adapted their physical facilities such as modified desks and chairs to enhance the learning of children with a visual impairment from integrated pre-primary to primary schools. In comparison, 13(9.3%) of the teachers agreed. However, only a paltry 3(2.3%) of the teachers were undecided, 7(5.4%) of teachers disagreed, while 30(22.5%) of the teachers strongly disagreed. Most of the respondents agreed with the statement indicating that both integrated pre-primary and primary schools lacked the necessary physical facilities to support the transition of the learners with visual impairment. The results reveal that there were few schools with the required physical facilities and hence the low rate of transition was a reflection of this lack of physical facilities. The study revealed that 78(58.1%) of the teachers strongly agreed that, in many integrated pre-primary schools, classrooms have a large number of learners to influence the transition of learners with a visual impairment from integrated pre-primary to primary schools. 15(10.9%) of the teachers agreed. However, 5(3.9%) of the teachers were undecided, 16(11.6%) of the teachers disagreed, whereas 21(15.5%) of the teachers strongly disagreed. The response shows that teachers in primary schools could not pay attention to the needs of the learners with VI as the classes were significant compared to the small types at the pre-primary level. This agrees with the findings of [14], who indicated that schools that do not have appropriate physical facilities are not prepared for visually impaired children.

This credits the fact that play helps learners who are differently able to interact with others, develop their other skills, enhance their abilities and give them the confidence to move on to the next grade. Besides, having appropriate play materials at all levels of learning enhances the transition of learners from one level of education to the next. The majority, 91(67.4%), of the teachers strongly agreed that the physical environment, e.g., ramps and pavements, is instrumental in the transition process from integrated pre-primary to primary schools. 31(23.3%) of the teachers agreed. In the same breath, 3(2.3%) of the teachers were undecided,

6(3.9%) of the teachers disagreed, whereas 4(3.1%) of the teachers strongly disagreed. This is in agreement with the findings of Rivkin et al. (2005), who indicated that physical facilities and play activities have a direct influence on the transition of the learners from integrated pre-primary to primary schools. This was highly supported by the participants with 58(43.0%) and 19(14.1%) who strongly agreed an indication that they play a great role during the transition process.

When the learners socialize during play, it influences transition from integrated pre-primary to primary schools. 59(43.7%) agreed,14(10.4%) strongly agreed, 29(21.5%) were undecided,26(19.3%) disagreed while 7(5.2%) of respondents strongly disagreed. This confirms that play is necessary for young learners during the transition process.

To verify the relationship between physical facilities and transition from integrated pre-primary to primary schools, data were further collected on class size and the transition of learners with VI to grade one in primary schools. The results are shown in Table 7:

Table 7: Results of the physical facilities and the transition of learners with VI to grade one in primary Schools from integrated pre-primary schools

Physical facilities	Transition of Learners with VI to Grade One
Size of the classes	43
Toilets/Latrines	61
Playgrounds	82
Ramps	38
Colored pavements	40

The results in Table 7 show that the rate of transition of learners with VI from pre-primary to primary schools which had large class sizes was very low with a transition rate of 43. This implies that the size of the class in an integrated school with learners with VI influences the transition of these learners to grade one. This might be attributed to the level of teacher/learner attention which is important in the performance of the learners and hence influence transition. This implies that class size has an influence on the transition rate of the learners. The result further indicates that toilets/ latrines and the playground might not to a great extent influence transition rates given that their influence was given as 61 and 82. Ramps and colored pavements at 38 and 40 indicates that low transition rates are as a result of inadequacy of the resources. This should be dynamics which should be considered in order to enhance the transition of learners with VI. This implies that though physical facilities were important in schools, their influence on transition is negligible and that is why the findings show that most respondents still felt that there were higher numbers of learners with VI transitioning to grade one.

4. CONCLUSION

From the study, it shows that majority of the respondents felt that the levels of readiness of learners with VI remain very low among the pre-primary learners transitioning from integrated pre-primary to integrated primary schools. This was seen through poor orientation, low social competence, inability for exploration and above all poor communicative competencies which are necessary for adjustment in new school settings after undergoing transition.

The study also established that majority of the respondents agreed that physical facilities are very important in enhancing the transition of learners from integrated pre-primary to integrated primary schools. Schools that have adapted effective physical facilities are in a position to enhance smooth transition of learners with VI from integrated pre-primary to primary schools. This could be as a result of teachers having enough time to deal with other development issues of the child that are required for effective transition. These include, but not

limited to, lack of modified desks, modified chairs, conducive classrooms, resource centers, play materials and disability-friendly pavements as far as visual impairment is concerned.

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