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Status of teacher adequacy in public Early Childhood Development Education Centres in Nandi County, Kenya

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ABSTRACT

The purpose of this study was to examine the Status of teacher adequacy in public Early Childhood Development Education (ECDE) centres in Nandi County, Kenya. The study adopted descriptive survey design using mixed methodology and pragmatism paradigm. The target population comprised of 1387 pre-school teachers, 1 county Director of ECDE, 6 Sub-County ECDE Directors and 651 primary school head teachers. A sample size of 301 teachers and 208 head teachers was obtained. Stratified and simple random sampling was used to select teachers and headteachers while purposive sampling was used in selecting the county director of ECDE and 6 Sub-County ECDE Directors. Questionnaire and interview schedules were used for collecting data for the study. Validity and reliability of the instruments were determined before data collection. Quantitative data was analyzed using frequencies and percentages while content analysis was used to analyze qualitative information. The study found out that majority of the pre-schools in the study area lacked adequate pre-school teachers, textbooks and play materials. Majority (72.0%) of the employed pre-school teachers had undergone pre-school teacher training courses therefore they had adequate and current pedagogical skills which allowed them to effectively handle pre-school learners. Majority of the pre-schools lacked adequate teaching and learning materials. The study recommended that there is need for employment of more trained pre-school teachers by the county government to improve learning. This is attributed to the fact that there were inadequate trained pre-school teachers employed by the county government yet early childhood education is a devolved function.

1.0 Introduction

Education is critical in equipping the recipients with the skills attitudes and competences required in promoting self and national development (Gross Giacquinta & Bernstein, 2001). Furthermore, education is considered the cornerstone of the development process of a nation. While it increases the productive capacity of its constituent's individuals, education has an incremental effect on the society's aspirations in the economic, social-cultural and political realms. Countries around the globe have put up notable efforts to ensure the right of education for all, but despite these activities more than 100 million children worldwide have no access to primary education (UNESCO, 2010).

Ayot and Briggs (1992), acknowledges education as the cornerstone of improving the socio-economic and welfare of the people and the society at large. Education training as investment assures higher individual earnings than investing in alternative segments of the financial system (Psacharopoulos & Woodhall, 1985; World Bank, 2011). Furthermore, IBED, (2005) and Ojiambo (2009) stated that schooling is considered as the foundation of Human, Cultural, Social, and Monetary capital and is considered as valid in terms of both character and collective excellent, ensuing into explosive increase each in countrywide and international area. In addition, KIPPRA (2009) found that establishment of first-rate training is crucial in producing the chances and advantages of social and monetary advancement.

Care and development of young children is the foundation of social relations and the starting point of human resource development. According to Mullis, Martin, Foy & Arora, (2012), early childhood is the most critical period for cognitive and social development. Children being active learners from birth, and the first years are vital in determining what the person becomes in adulthood, hence early childhood development and education (ECDE) should be recognized as a first step of basic education and a fully integrated sector within national education systems. Provision of ECDE should consequently be universally accessible and free for all children because high quality ECDE provides the foundation for life-long learning and stimulates children's social, emotional, physical, cognitive and linguistic development (Hirst, Jewis, Sojo & Cavagh, 2011).

Early Childhood Development (ECD) has been differently defined depending on contexts. For example, it has universally been defined as the period from birth (or prenatal) to eight years old (UNESCO, 2010; UNICEF, 2011). Early childhood development and education (ECDE) relates to how well a child is tracking in their education over this period. It looks at the physical health and wellbeing; social competence; emotional maturity; language, cognitive and communication skills and general knowledge (International Labour Organization (ILO), 2012).

Although most governments across the globe recognize the importance of ECDE, the provision of quality ECDE has met several challenges, most of which are contextual.

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Infrastructure, trained teachers, and teaching and learning resources have been lacking in adequate measures to satisfactorily aid quality of ECDE learning (EI, 2010). In Canada, Bonnechere Union Public Library (BUPL, 2006) reports that ECDE teacher turnover rates rose owing to low remunerations by the municipal government upon which recruitment of the teachers are bestowed. In Hungary, where ECDE is subsidized by the government, enrolment is generally high in ECDE centres far beyond the infrastructural capacities of such centres (OECD, 2006). Cuyvers, De Weerd, Dupont, Mols, and Nuytten (2011) investigated the importance of infrastructure to the well-being of learners and consequently to positive educational outcome in Antwerp, (Belgium). They found that differences in students' well-being can be linked to the quality of the infrastructure of the schools they attend.

Equally, De Paola, Ponzo, and Scoppa (2009) examined the effects of class size on students' achievement using data from a project offering special remedial courses in Mathematics and Language skills to freshmen enrolled at an Italian medium sized public University in Italy. It was found that larger classes determine a significant and sizeable negative effect on student performance in Mathematics. The two studies (Cuyvers, et al., 2011; De Paola & Scoppa 2009) however, need to motivate researchers to investigate infrastructural capacities and class sizes with intention to determine quality of education offered among devolved systems across the globe, including Kenya.

The early stages of life of an individual have an important influence in the life of learners. The level of education of a household, its poverty level, and income level determines its demand for more education especially for its siblings. Families with less educated parents and low standards of living lack financial support for their children and consequently such children may not at all enroll in the learning programmes or may drop out of the educational system (Dowling, & O'Malley, 2009). Teachers constitute the core of the education system and their importance in students/pupils performance has been widely confirmed by many studies (Rivkin, Stephen, Ertik & John, 2000). In recent years, an increasing number of studies have expressed concern about current and prospective teacher shortages in many countries. According to Santiago (2002), severe shortages currently exist, and there is a gap between demand and supply of teachers needed to ensure effective teaching in many countries. Teacher deficit is therefore a major concern to educational authorities taking cognizance of the teacher pupil/student ratio and should be addressed continuously by policy makers. Qualified teachers in both the developed and developing world are becoming the hardest segment of the teaching profession to attract and retain and are the most expensive to educate (World Bank, 2006). It against this background that this study sought to deterime the status teacher adequacy in ECDE centres in Kenya.

2.0 Teacher Adequacy

Teacher adequacy can compromise the quality of education (Boyd & Barbarin, 2008). To identify the adequacy of teachers in the learning environment, the student-teacher ratio (STR) need to be determined. STR will tell whether an institution is having adequate teachers or not. The advantage of having low STR is reducing the number of students to be handled by a teacher in the classroom. This ensures the teacher's attention to the students and thus good academic performance. On the other hand, high STR will mean that a teacher will have to handle a large number of the students in the classroom at the same time. Students' academic performance is affected by the transfer of teachers from schools without replacements leading to lack of enough teachers' thus affecting teacher-student ratio (Wanyama, 2013).

UNESCO (2005) found out that teacher adequacy is a significant factor influencing students' academic performance This implies that when teachers are sufficiently supplied in quantity and quality, academic performance will improve and vice versa. Studies conducted elsewhere also confirm that teacher adequacy is critical in academic performance. Tyke and O'Brien (2002) argue that when schools are plagued by shortage of teachers due to increase in students' enrolment academic performance is normally affected and often poor results are reported. Equally, Klaus and Dolton (2008) observes that teacher inadequacy can affect students' academic performance. The study findings are in line with that of Mosha (2014) found out that most secondary school in Tanzania has inadequate teachers thus leading to their poor academic performance. Similarly, in Kenya, the ratio of children to teachers is also an issue because some programs have a 1 to 100 ratio (Soto, & Swadener, 2002).

The effectiveness of teachers and their contribution in producing a high-quality education has been studied by many researchers. In those studies, researchers have focused on teacher-student interaction as an important aspect of a good education and academic achievement (Graue, Rauscher & Sherfinski, 2009). Among such researchers, Hamre et al. (2007) and La Paro et al. (2004) viewed social and academic interaction between teachers and students as a crucial determinant of the academic success. The interaction between teachers and students is generally believed to be affected by characteristics of teachers and students. However, there are some other aspects that affect this interaction like the number of students per teacher in a school.

Number of students per teacher is generally associated with class size and it is mainly believed that smaller classes, provide better teaching and learning environments. This belief has been shared by many countries like the USA, European countries, China, Japan, and many other countries and they made policies to reduce their class sizes (Blatchford & Lai, 2012). The average class size has been decreased in many countries; the decrease between 2000 and 2010 in lower secondary education class size has been quite high for some countries like 33.9% for Portugal, 27% for Spain, 20% for Japan, 17% for Korea, 13.2% for United States. Amongst the OECD countries, the average class size at the lower secondary level is 23. There are countries like Finland, Iceland, the UK with class sizes of 19 and lower and countries like Turkey, Korea and China with class sizes of 28, 34 and even 54 (OECD, 2012).

According to Nizamettin & Bekir (2014), small class size has an influence on academic achievement of children and there are many other studies showing the positive impacts of class size on students. Nevertheless, some researchers concluded that this academic achievement cannot solely be the result of the small class size. They suggest that number of students in a classroom has an influence on the classroom process, course activities, students' engagement and consequently students' learning. Most of the ECDE centres in Kenya, are faced with serious teacher shortages since the county governments have employed only a few teachers while others are still under the BOM of the primary schools.

3.0 Methodology

The study adopted descriptive survey design using mixed methodology and pragmatism paradigm. The target population comprised of 1387 pre-school teachers, 1 county Director of ECDE, 6 Sub-County ECDE Directors and 651 primary school head teachers. A sample size of 301 teachers and 208 head teachers was obtained. Stratified and simple random sampling was used to select teachers and head teachers while purposive sampling was used in selecting the county director of ECDE and 6 Sub-County ECDE Directors. Questionnaire and interview schedules were used for collecting data for the study. Validity and reliability of the instruments were determined before data collection. Quantitative data was analyzed using frequencies and percentages while content analysis was used to analyze qualitative information

4.0 Results and Discussion

Teachers were asked to rate their level of agreement on a five-point likert scale items in the questionnaire on teacher adequacy. Results of the analyzed information is presented in Table 1

Table 1 shows that 208(45.8%) teachers strongly disagreed with the statement that devolution and decentralization of education had contributed to manageable pupil- teacher ratio in their schools, 109(24.0%) teachers disagreed with the statement, 61(13.4%) teachers agreed with the statement and 50(11.0%) teachers strongly agreed with the statement. The study findings showed that majority (69.8%) of the teachers in pre-schools in Nandi County reported that devolution and decentralization of education had not contributed to manageable pupil- teacher ratio in their schools. This implies that the pupil to teacher ratio was still high in most pre-schools in the region thus hampering the implementation of ECDE programmes. The is a pointer that despite devolution of ECDE, most of the pre-schools are still faced with the challenge of teacher adequacy. Further, 191(42.1%) teachers disagreed with the statement that there were enough ECDE teachers to teach children in their schools, 89(19.6%) teachers agreed with the statement and 87(19.2%) respondents strongly disagreed with the statement while another 87(19.2%) teachers strongly agreed with the statement. From the responses, it emerged that majority (61.3%) of the pre-school teachers in Nandi County believed that their schools had inadequate teachers.

In addition, 169(37.2%) teachers strongly disagreed with the statement that deployment of teachers to county schools had enabled their schools to reduce the teaching burden that teachers face on daily basis, 136(30.0%) teachers disagreed with the statement, 70(15.4%) teachers strongly agreed with the statement and 64(14.1%) teachers agreed with the statement while 15(3.3%) teachers were undecided on the statement. From the responses, it emerged that majority (67.2%) of the ECDE teachers in Nandi County reported that the county had not deployed adequate teachers in their schools thus there is increased workload among the existing teachers. This therefore shows that more teachers need to be deployed by the county government to reduce on the existing workload.

Similarly, 152(33.5%) teachers were in disagreement with the statement that with the teachers benchmarking in various Counties had facilitated improvement in learners' academic performance in ECDE centers, 89(19.6%) teachers were strongly in agreement with the statement, 86(18.9%) teachers were strongly in disagreement with the statement and 84(18.5%) teachers agreed with the statement while 43(9.5%) teachers were neutral on the statement.

As shown by the responses, it can be argued that most (52.4%) of the pre-school teachers in Nandi County perceived that teachers' benchmarking in various counties did not facilitate improvement in learners' academic performance in ECDE centers. This was attributed to the fact that most ECDE teachers had not been given opportunities of benchmarking in other counties and therefore did not understand the benefits associated with benchmarking. This therefore points out that pre-schools in Nandi County need to embrace the idea of benchmarking in other counties so as to allow them to think outside their classrooms and enable learners to achieve better academically.

In addition, 164(36.1%) teachers agreed with the statement that parents have employed extra teachers in their pre-schools for efficiency in curriculum implementation, 141(31.1%) teachers strongly agreed with the statement, 76(16.7%) teachers disagreed and 47(10.4%) teachers were neutral on the statement while 26(5.7%) teachers were strongly in disagreement with the statement. The study finding shows that majority (67.2%) of the pre-school teachers in the study area acknowledged that parents had employed extra teachers in their pre-schools for efficiency in curriculum implementation in the centres. This points out that parents come in handy to assist pre-schools in getting extra teachers since the county government has only managed to employ one teacher per centre where three pre-school teachers are needed. This therefore points out that the extra two teachers are employed by the parents.

Table 1. Teachers' responses on adequacy of pre-school teachers

Statement	SD		D		N		A		SA	
	F	%	F	%	F	%	F	%	F	%
Devolution and decentralization of education has contributed to manageable pupil- teacher ratio in my school	208	45.8	109	24.0	26	5.7	61	13.4	50	11.0
There are enough ECDE teachers to teach children	87	19.2	191	42.1	0	0.0	89	19.6	87	19.2
Deployment of teachers to county schools has enabled my school to reduce the teaching burden	169	37.2	136	30.0	15	3.3	64	14.1	70	15.4
Teachers benchmarking in various Counties has facilitated improvement in learners' academic performance in ECDE centers	86	18.9	152	33.5	43	9.5	84	18.5	89	19.6
Parents have employed extra teachers in our pre-schools for efficiency in curriculum implementation	26	5.7	76	16.7	47	10.4	164	36.1	141	31.1
All teachers in our pre-schools have undergone pre-school teacher training	60	13.2	29	6.4	38	8.4	199	43.8	128	28.2
Majority of the pre-school teachers have been employed by the county government	132	29.1	140	30.8	68	15.0	67	14.8	47	10.4
Teachers in our school have adequate teaching experience and thus able to handle pre-school learners according to their needs	92	20.3	41	9.0	48	10.6	151	33.3	122	26.9

This shows that the adequacy of teachers as employed by the parents enables pre-schools to effectively handle the pre-school curriculum. This therefore shows that since the pre-schools is a devolved function, the county governments need to employ adequate pre-school teachers so as to enhance quality education for the learners throughout the education system.

Further, 199(43.8%) teachers agreed with the statement that all teachers in pre-schools had undergone pre-school teacher training, 128(28.2%) teachers strongly agreed with the statement, 128(28.2%) teachers strongly agreed with the statement, 60(13.2%) teachers were strongly in disagreement with the statement and 38(8.4%) teachers were neutral on the statement while 29(6.4%) teachers disagreed with the statement. As shown by the responses, it can be reported that majority (72.0%) of the pre-school teachers believed that all teachers in pre-schools in the study area had undergone pre-school teacher training courses. However, some teachers had just completed form four and are employed by parents to teach in pre-schools. In this study, teachers who have undergone training are employed mostly through the county government thus motivating those who have not undergone any form of training to join pre-school teacher training colleges.

Moreover, 140(30.8%) teachers were in disagreement with the statement that majority of the pre-school teachers have been employed by the county government, 132(29.1%) teachers strongly agreed with the statement, 68(15.0%) teachers were neutral and 67(14.8%) teachers were in agreement with the statement while 47(10.4%) teachers strongly agreed with the statement. From the responses, it emerged that most (59.9%) of the pre-school teachers were of the view that majority of the pre-school teachers were not employees of the county government. This is despite the fact that early childhood education programme is a devolved function. However, it was noted that the county government employs only one teacher per school leaving out two or more teachers to be employed by the parents. This shows that majority of the pre-school teachers are employed by the parents.

Similarly, 151(33.3%) teachers agreed with the statement that teachers in their schools had adequate teaching experience and thus able to handle pre-school learners according to their needs, 122(26.9%) teachers strongly agreed with the statement, 92(20.35) teachers were strongly in disagreement with the statement and 48(10.6%) teachers were undecided on the statement while 41(9.0%) teachers were in disagreement with the statement. From the responses, it emerged that majority (60.9%) of the pre-school teachers in the study area believed that teachers had adequate teaching experience and thus able to handle pre-school learners according to their needs.

5.0 Conclusion and Recommendations

Based on the findings, it can be concluded that pre-schools in Nandi County lacked adequately-trained teachers thus hindering the implementation of ECDE programs. The pupil to teacher ratio was still high in most pre-schools in the region thus affecting curriculum implementation. This therefore compromised the quality of education being offered at ECDE centres in the region. Therefore, there is need for the county government to employ more ECDE teachers in Nandi County.

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