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## Research in Economics of Early Childhood Education Programmes

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#### **Abstract**

Globally, millions of children do not have access to early childhood education programmes. Early childhood education programmes are institutions which provide early care and education to young children. The programmes lay strong foundation for children's development and education. The programmes have many benefits to children, families and economies. The benefits include: Provides adequate school readiness skills, leads to high achievement scores, produces more educated workers, creates more income and increased tax revenues. Investment in high quality early childhood education programmes builds human capital for economic development and breaks the cycle of poverty and inequalities. Countries should use early childhood education programmes as a tool for social and economic development.

**Keywords**: Research, Economics, Benefits, Early Childhood Education, Programmes.

#### INTRODUCTION

Basic Education is a right for every child as enshrined in the United Nations Convention on Rights of the Child. The convention requires governments to provide basic education to all children (Convention on the rights of the child, 1989). Early childhood education is critical because it reduces poverty, promotes equality and lifelong learning. Equally, it is at this level learners' talents are identified, nurtured and developed to full potential. Due the importance placed in early childhood education, countries allocate more resources to the sector (Barnett, 2008). Hence, there is need to analyse early childhood education programmes and benefits to children, families, and economies.

Children's access to early care and education has many advantages to individuals, families and the society. Research has shown that it builds human capital and increases equity which are necessary for a country's social and economic development. It also promotes women's employment and productivity (Devercelli & Beaton-Day, 2020). Well-funded and managed early childhood education programmes yields extraordinary returns (Rolnick & Grunewald, 2003). The returns from investment in quality early childhood education programmes are more than those from investments like industrial parks which may have negative returns (Committee for Economic Development, 2004). Similarly, Heckman and Masterov (2004) state that investment in early childhood education programmes brings greater returns compared to investment in later years of education. This means that one of the strategies that countries can be used to overcome poverty is by ensuring that all children have access to high quality early childhood education programmes.

Globally, millions of children do not have access to early childhood education programmes. It is estimated that 43% of the children in the world do not have access to early childhood education programmes. It has been reported that majority of the children are from poor countries where children live in unsafe environments (Devercelli & Beaton-Day, 2020).

In developed countries like USA, German and United Kingdom, early childhood education programmes are used as a tool for social and economic development and for boosting economic progress. In developing countries, early childhood education is also used as a device for social and economic development and a foundation of national development. In Sub-Saharan Africa; studies have showed that countries lag behind in early childhood education. This is because most of the countries have developed good policies to guide implementation of early childhood education services but not effectively implemented (Devercelli & Neuman, 2012). This implies that there is need for governments to ensure effective implementation of the policies to promote quality early care and education for children.

In Kenya, the constitution states that basic education is a right of every child. Article 53 of the constitution provides for free and compulsory basic education for every child and requires children to be protected from all forms of abuse. The constitution also requires the state to ensure that all children have access to basic education (Republic of Kenya, 2010). Subsequently, Kenya ratified sustainable development goals which need governments to ensure provision of inclusive and quality education. Goal 4, target 4.2 further obliges all governments to ensure that by 2030 all children have access to quality early childhood education (UN, 2015). To achieve the goal and align preprimary education to the constitution of Kenya, a national pre-primary education policy was developed. The policy requires stakeholders to provide quality pre-primary education to all children and to meet trends in early childhood education. It also serves as a guide to service providers (Republic of Kenya, 2017). There was therefore need to establish how effective the policies are implemented to enhance children's access to quality early childhood education.

Effective implementation of policies will ensure that children have a strong and good start. However, studies conducted in Kenya and in many other countries have shown that many children do not have a good due to many factors. The studies have also shown that the quality of environment in early childhood education programmes matters because it influences children's development and education. Equally, studies done in Kenya have revealed that early childhood education has not received the attention it deserves despite the existence of many policy documents which emphasize its significance. The studies also appear to have focused more on the negative effects of the environment in pre-primary schools and not on the benefits of the programmes. Consequently, this study was planned to fill the gap in knowledge regarding the benefits of early childhood education programmes to children, families and society or economy. The guiding questions were: What are early childhood education programmes? What are the benefits of early childhood education programmes to children, families, and economies

### RESEARCH METHODOLOGY

The study used documentary review method to obtain data on early childhood education programmes and the benefits of early childhood education programmes to children, families, and economies. Documentary review is a systematic analysis of existing documents to identify themes,

trends, and patterns (Bailey, 1994). Data was retrieved from the internet using google web search engine. Several documents were retrieved including empirical articles, government policy documents, UNESCO and United Nations documents, and ministerial reports. The documents were analyzed using qualitative data methods and results presented using text.

### EARLY CHILDHOOD EDUCATION

## **Early Childhood**

What is early childhood? It refers to a stage for young children who are eight years and below. Early childhood is also known as the foundation years or formative years. This means that foundation of good character, underachievement, excellent performance or economic development is laid in early childhood. According to Begi (2009) early childhood is important because it lays the foundation for children's development and education.

## **Early Childhood Education**

What is early childhood education? It refers to education for young children up to age of 8 years. The components of early childhood education are:

- (i) Early Childhood Development. What is early childhood development? It refers to care and education of young children up to the age of 3 years. According to UNESCO International Bureau of Education (2013) early childhood development is a term which cuts across several sectors including health, nutrition, technology, education, and social protection. It also refers to the physical, cognitive, linguistic, technological skills and socio-emotional development of young children. Early childhood development is a concept which cuts across multiple sectors. The sectors include health, education, security, and social service (Naudeau et al., 2011). Families are key stakeholders during this stage because they provide early experiences which lay which influence future development and learning.
- (ii) Pre-primary school education. It is education for children between 3-5 years. In Kenya, it includes: Baby (reception) class for 3 year old children, pre-primary I for 4 year old children and Pre-primary II or five year old children.
- (iii) Lower primary school education. It is education for children in grade one to three that is for children aged between 6-8 years.

## Philosophy of Early Childhood Education

What is the philosophy of early childhood education? It refers to beliefs and principles which influences theory and practices in early childhood education. It states the nature of children, significance of early childhood education and the role of environment in shaping children's destiny. Friendrich Froebel, a German philosopher and a father of the modern kindergarten state that every child is unique and has a specific purpose to fulfil in life. He believed that children are like young plants which should be nurtured in a Kindergarten (early Childhood Education Programme) from an early age to develop their full potential. He believed that early childhood education programmes form a bridge between homes and school and children develop in stages(Baader, 2004). John

Dewey American philosopher, defined education as a continuous reconstruction of experiences and the role of schools is to provide education to make children useful to themselves, family and society (Hansen, 2006). Maria Montessori, an Italian philosopher, believed that early years of children are foundation years and crucial years of children's development and education. In addition, she believed that each child is unique and can achieve his/her maximum depending on the learning environment (Meinke, 2006).

## **Early Childhood Education Programmes**

What are early childhood programmes? These are institutions or centres which offer care and education for children who are eight years and below. A programme is a plan of activities that are carried out to achieve specific goals and objectives for example a child development centre. Early childhood education programmes in Kenya as it is in many countries have different names depending on the purpose and philosophies. The characteristics of high quality early childhood education programmes include: Well-managed; qualified and talented staff; use of age appropriate curriculum; stimulating learning environment; availability of adequate materials; availability of opportunities for play; and strong stakeholders engagement ().

According to Wechsler, et al. (2016) the elements of high quality early childhood education programmes include: Early learning standards which meets needs of the whole child; comprehensive assessment which covers all aspects of the child; employment of qualified and well trained caregivers; ongoing support for caregivers; caters for children with special needs; a lot of family engagement; small classes; and well implemented program of activities ().

Early childhood education programmes in many countries have different names depending on the type of sponsorship, philosophy, objectives of the programme, the place where the programme is located, and duration of the programme. The names of programs include: Nursery schools, Day care centres, Kindergartens, Montessori schools, Crèche, Home-based child care centres, Koranic School (Madrassa) for Muslim children, and Mobile ECD centres for children in arid and semi-arid lands. Some of the programmes are formal institutions while others are informal institutions (Begi, 2009).

The programmes may also be categorised as investment in human capital programmes; supplement to care and education programmes; remedial or compensatory service programmes; and substitute for parental care programmes.

- (1)The investment in human capital programmes focus on developing the human capital in young children. The human capital is in form of knowledge, skills, talents and abilities in children. Parents who take children to this type of programmes know that they are investing in human capital in their children and look at education as an investment. Their main objective is to enhance human capital in their children because they know that returns will be better in future inform of better performance in school and later better jobs. They also now that investment in children's education will have better future payoffs.
- (2) Supplement to Care and Education Programmes are programmes which provide support service for families. The programmes provide care and education to children of working parents.

Caregivers perform parents' role of taking care of children while their parents are away. The percentage of mothers of children below 6 years joining the labour force globally and in Kenya is also increasing and hence the need of the programmes. Traditional families which were supported entirely by the fathers' income while mothers stayed at home with children is now not possible. There is also decreased reliance on relatives for childcare. The advantages of the programmes include: It helps parents to go for employment, make them productive, do not worry about their children, and are not to be absent from work.

- (3) Remedial or compensatory service programmes are child development centres which enrol children to remediate or compensate for particular difficulties the children might be having for example deaf and blind. There is increased demand of programmes for children with special needs due to many factors like lack of conducive environment and lack of early screening and intervention programmes for mother and infants.
- (4) Substitute for parental care programmes on the hand are institutions or centres that provide care for children without parents for examples children's homes.

In the previous section concepts, philosophy, and components of early childhood education programmes have been analysed. In the next section, benefits of children's access to early childhood education programmes to individuals, families and society or economies have been discussed.

# BENEFITS OF CHILDREN'S ACCESS TO HIGH QUALITY EARLY CHILDHOOD EDUCATION PROGRAMMES

The benefits have been categorized as related to children, families and economies. The review of relevant literature shows how children's access to high quality early childhood education programmes benefit children, families and economies. The next sub-section focuses on the benefits to children.

## **Benefits to Children**

The studies conducted in developed countries have shown that children access to high quality early childhood education programmes have many benefits. According to Heckman (2007) the benefits include: Better skills; better job opportunities after graduating; high salaries due to better qualifications; job security; and more employment opportunities. The benefits also include: Adequate school readiness skills; reduced repetition; less dropout rates; and high achievement in school. Similarly, Friedman (2004) reports that children's access to high quality early childhood education programmes have both short-term and long term benefits to children. The benefits include: decrease in need of special education, and reduction in grade repetition.

Barnett (2008) states that high quality early childhood education programmes have many benefits. The effects include: high achievement scores, low grade repetition, reduced delinquencies, and reduced crime. He adds that while all children benefit from high quality early childhood education programmes, economically disadvantaged children benefit the most. He also continues that children benefit less from poor quality programmes and have more negative effects

on children's development and education. Quality early childhood education programmes also help children to achieve their maximum potential (Naudeau, 2011). The programmes also give children a head start in their education and life (MacEwan, 2013).

On the contrary children's access to poor quality early childhood education programmes have many negative effects on children. For example in Uganda, the rapid growing population in urban areas has led to most urban preschools lack sanitation facilities which have negative effects on children (Adams, 2009). Equally in Kenya, a study conducted by Mwoma, Begi and Murungi (2018) found that poor infrastructure, lack of space for play and congested classrooms were some of the challenges in preschools in the informal settlements.

Studies done in other countries have also shown that exposure of children to poor quality programmes have many negative effects on children. For example a study done in Kenya by Ngirerea (2018) had found that nearly two-thirds of the early childhood education programmes did not have physical facilities. Teacher-pupil ratio was also very high and there were many centres without physical facilities where children were learning under trees. Similar findings were reported by Takesure et al. (2013) who found that in Zimbabwe early childhood development centres at satellite schools faced serious challenges like inadequate instructional resources, understaffing, and irresponsiveness of the community. Likewise, Begi and Buna (2020) found that distance from home to school; harsh climatic conditions and rough terrain were hindering children's access to early childhood education. According to the Consultative Group on Early Childhood Care and Development (2013) exposure of children to negative conditions and experiences during early childhood impact negatively on children's development and education.

As demonstrated by the various studies, children's access to quality early childhood education programmes have many benefits to children. Studies have also shown that exposure of children to poor quality early childhood education programmes have many negative effects on children's development and education. The next section focuses on benefits to families.

#### **Benefits to Families**

According to MacEwan(2013) the benefits of children's access to quality early childhood education programmes include: More parents are able to join work force since they have a palace where to keep their children, less absent of parent from work due to child care, less stress on parents, more job satisfaction, and parents are more productive due to less interruption from children. Similarly, Devercelli and Beaton-Day (2020) state that the benefits to families due to children's access to high quality early childhood education programmes include: More women are empowerment; there is increased family income; more family investments due to improved income; reduction in early marriages; and increased school attendance for girls.

Hamm, et al. (2019) report that quality early childhood education programmes have both positive and negative effects on families. The positive effects include: Improved well-being of families because of reduced stress related to child care, and children access high quality early learning experiences which prepare them for school.

On the contrary, research has also shown that exposure of children to poor environment in

early childhood programmes has many negative effects on children. For instance, a study done in India by Chary, Narender, and Rao (2003) had revealed that majority of preschools did not have adequate sanitation facilities. This made parents to incur expenses of unhealthy living conditions such as getting infected with contaminated water. As a result, learners dropped out of school while some face severe fatalities. Lack of quality facilities in preschools also makes parents to be worried about the safety and security of their children which affects their productivity.

The provision of high quality early childhood education programmes makes important contributions to social and economic development of a nation which is addressed in the following section.

### **Benefits to Economies**

In USA, Barnett (2008) investigated the cost/benefit of investing in high quality early childhood education. Results had revealed that for every dollar invested in early childhood education programmes, there was over \$7 in benefits to the participants and the society due to increased earnings. The benefits to children included grade retention and the need for special education were reduced, while achievement in school improved. Similarly, According to Devercelli and Beaton-Day (2021) children's access to high quality early childhood education programmes benefits economies in various ways. The benefits include: increased economic growth; increased productivity; increased tax revenues due to more paying jobs; reduced burdens on government systems due to reduced crime, social support and special education.

Heckman (2000) investigated the economic returns from money spent in retraining workers. He found that older workers were having challenges in learning skills because they were old and had fewer years to benefit from the training. He also found that money spent on younger learners yield higher returns compared to money spent on older learners. This is because returns from investment in early childhood education programmes were more than investment in programmes for the economically disadvantaged groups later in life. Likewise, MacEwan(2013) state that governments who spend more on early childhood education, returns to the country per dollar spent were higher, tax payments were higher, there was reduced reliance on social support programmes, and less engagement in crimes.

The studies reviewed show that children's access to high quality early childhood education programmes have many benefits to children, families and economies. In these programmes, technology also should be integrated. Especially digital technology has a vital role in childhood education programmes. As Muraina and Emek stated digital technology-based skills are becoming increasingly important for economic progress in all its manifestations (2023). Some studies have also shown that exposure of children to poor quality early childhood education programmes have several negative effects. How to address the negative effects has been discussed under recommendations for the key stakeholders.

#### CONCLUSION

Literature review indicates that early childhood education programmes are important because they lay the foundation for children's development and education. There are various early childhood education programmes which offer early care and education to young children. Access to quality early childhood education programmes builds human capital and increase equity which are essential for a country's economic development. The programmes have many short and long term benefits to children, families and economies. The benefits include: adequate school readiness skills, high achievement scores, more parents join work force, increased family income, low crimes, high graduation rates, more educated workers, more motivated workers, and increased tax revenues. Developed countries invest in high quality early childhood education programmes to enhance economic development and to break the cycle of poverty and inequalities.

The recommendations to address the negative effects of lack children's exposure to poor quality early childhood education programmes has been outlined in the next section.

#### RECOMMENDATIONS FOR KEY STAKEHOLDERS

The key stakeholders include governments, parents, managers of early childhood programmes, and donors. The recommendations for the different stakeholders are as follows:

#### **Governments**

The results indicated that globally 43% of children do not have access to early childhood education programmes. Majority of the children are from poor countries. It was also noted that some governments have developed early childhood education policies which are not effectively implemented. To ensure that all children have access to quality early childhood education governments should:

- (i) Develop and effectively implement policies to ensure all children have access to quality early childhood education programmes.
- (ii) Ensure early childhood education programmes are designed to cater for the whole child to produce positive effects on children's development and education. They should also have small classes and adequate space.
- (iii)Ensure adequate supervision of early childhood education programmes to ensure proper care and education of children.
- (iv) Support continuous training of caregivers to equip them with relevant competencies.
- (v) Support programmes for the most vulnerable families and children because they are the ones who benefit most.
- (vi)Allocate adequate funds to early childhood education programmes to make child care and education affordable to poor families.
- (vii) Ensure that all children are in safe and stimulating environments to develop talents.
- (viii) Support universal early childhood education to ensure that no child is left behind and to lay a strong foundation for social and economic development.

#### **Parents**

Parents should:

- (i) Support the management of early childhood programmes to provide adequate facilities and equipment.
- (ii) Collaborate with other stakeholders to help them to improve the environment in early care and education centres.

## **Managers of Early Childhood Programmes**

To improve the quality of services in early childhood programmes the managers should:

- (i) Collaborate with other stakeholders to help them to improve the environment in the centres.
- (ii) Ensure that early childhood education programmes cater for the whole child to produce positive effects on children's development and education.
- (iii)Ensure adequate supervision of early childhood education programmes to ensure proper care and education of children.
- (iv) Support continuous training of caregivers to equip them with appropriate competencies.
- (v) Ensure the environment in early childhood programmes is safe and stimulating.

#### **Donors**

The results indicated that there are many children who do not access early childhood programmes. There are also many early childhood programmes without adequate and appropriate facilities due to lack of adequate funds. This affects children's health, physical development and learning. To improve the situation donors should:

- (i) Provide funds to support the establishment of more early childhood education programmes to ensure all children have access to early care and education.
- (ii) Support early childhood education programmes to cater for the whole child in order to produce positive effects on children's development and education.
- (iii)Provide resources to support supervision of early childhood education programmes to ensure proper care and education of children.
- (iv) Support continuous training of caregivers to equip them with relevant knowledge and skills on child care and education.
- (v) Promote programmes for the most vulnerable families and ensure low cost.
- (vi)Provide funds to make early care and education affordable to families.

Year 2023, Volume-7, Issue-3| www.ispecjournal.org

- (vii) Provide funds to make environment in early childhood programmes safe and stimulating.
- (viii) Support universal early childhood education to ensure all children are early child programmes lay a strong foundation for economic development and to boost economic progress.

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