

## Early Childhood Education in Bahrain: A Way Forward?

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### **Abstract.**

There has been a significant amount of research which reaffirms the importance of children accessing and participating in formal education at a young age. Apart from the cognitive and social benefits, there are long-term economic benefits to a country. Despite such benefits, some countries have not taken the necessary steps to change their policy on compulsory student starting ages; Bahrain is one country which has maintained the compulsory age for children to start their formal education at six years of age. This paper describes the benefits of pre-school ECEC and provides an insight into the current situation of ECEC provision in Bahrain. Embedded within the contextual analysis of ECEC provision in Bahrain is the emphasis placed on parents to enrol (and fund) their children in education before the compulsory age. The result has meant that only 26% of Bahrain's children below the age of six actually receive any formal privately-provided education. Within such provision, this paper describes the barriers the country faces to mandate all children starting their formal education at a much lower age. Some of these barriers include a lack of political will, others relate to the financial impediments. Despite the barriers to shift Government policy, the paper explores some potential solutions that are adopted in other international settings to ensure quality ECEC is universally available (and mandatory) for all children in Bahrain at a much younger age than is currently in place.

**Keywords:** Early Childhood Education, Bahrain, Policy

## **1. Introduction**

### **The Importance of Early Childhood Education**

A growing body of research has been written that recognizes the range of benefits that early childhood education and care (ECEC) provides on various aspects of children's development (Barnett, 1995; Blau, 1999; Mitchell, 2009). These benefits range from improved social, emotional and cognitive development in children, reduction of poverty and better social and economic development for society at large (OECD, 2012).

As well as these benefits, there is now considerable amount of data and research in the form of longitudinal studies which shed insight into how children receiving high quality preschool programs receive short-term and long-term downstream benefits when compared with control groups (Heckman et al, 2009; Schweinhart, 2006). Here, the outcomes show that these benefits are not necessarily linked to intelligence and Intelligence Quota alone, but also to various social, economic and life-functioning benefits such as crime prevention, employability and schooling completed (Schweinhart, 2005).

However, the most compelling case for investing in ECEC lies in the neurobiology of children's development. Research has demonstrated that the human brain reaches half its mature weight by the age of 6 months and 90 percent of its final weight and size by age eight which stresses just how important these crucial years are as the landmark study concluded:

Virtually every aspect of early human development, from the brain's evolving circuitry to the child's capacity for empathy, is affected by the environments and experiences that are encountered in a cumulative fashion, beginning in the prenatal period and extending throughout the early years (Shonkoff & Phillips, 2000, p. 6).

Early learning not only sets the stage for the development of social, emotional, cognitive and motivational skills but also drives later learning and achievement for as the quote by Plato goes "as the tree is bent, so grows the tree". In the scheme of things this leads to the contribution of 'human capital' that reinforces the economic wellbeing of the community at large (Heckman, 2000).

## **2. Early Childhood Education and Care (ECEC) in Bahrain**

### **2.1 Provision and Governance**

Early childhood and preschool education is relatively new in the Kingdom of Bahrain, dating back to only the early 1950's (Al-Misnad, 1985). Since the period in the 1950's, the number of services provided to preschool children has increased from two kindergarten classrooms for boys to more than 186 co-educational facilities (Hadeed, 1994; Ministry of Education, 2011). However, the public education system does not provide a universal free comprehensive early

childhood and preschool program for children less than six years of age. In contrast, the only types of preschool education programs currently available for parents and their children under six are either independent nurseries and kindergartens or those that are embedded as part of private schools.

Furthermore, the responsibilities for early childhood education and care are currently split between two ministries in the Kingdom of Bahrain which leads to fragmented services. Nursery and infant programs for children under three years old are supervised by the Ministry of Social Development (MOSD), whilst preschools and early childhood education facilities for children over three years old are overseen by the Ministry of Education (MoE). Scholarly research suggests that integrated early childhood education and care services, under a common authority, provide more coordinated and goal oriented services (Bennett, 2008). According to the National Institute for Early Education Research, adopting a more integrated approach to the field allows government ministries to organize and align agreed policies and goals and combine resources for early childhood services. The alignment and sometimes streamlining of arrangements helps with government fiscal budgeting and also to avoid duplication of services. Regulatory, funding and staffing arrangements, costs to parents and opening hours can be unified and operated on a larger-scale. Variations in access and quality can be reduced, and links at the services level – across age groups and settings – are more easily created. In integrated systems, a common vision of education and care can be forged with agreed social and pedagogical objectives and goals (NIEER, 2004). In Bahrain, there is a clear need to overhaul the and improve the current approaches and focus greater efforts towards models of international practice and learn from other country's approaches and best practice.

## **2.2 Bahrain in Comparison to International Benchmarks**

When compared to the neighboring Gulf Cooperation Countries (GCC) in terms of early childhood education and care coverage to children aged four and five, Bahrain barely surpasses the GCC average. Currently only 52% of children attend early childhood education programs and kindergartens in comparison to a staggering 85% in the United Arab Emirates (UAE) and 77% in Kuwait. One of the main factors that contributes to the low ECEC coverage in Bahrain is the fact that there is no public free form of early childhood education programs or kindergartens available to parents, as a result most parents have been found to keep their children at home and then only enroll them at the age of 6 into a public primary school (Ministry of Education, 2011).

Moreover, Bahrain falls even further behind when compared to OECD countries' early childhood education coverage to children. Where countries like France, Belgium and the United Kingdom cover almost all of children aged three to five with an enrollment rate of 98 to a 100 percent, compared to only about 60 percent coverage in Bahrain

### **2.3 Access**

As stated previously the public education system in Bahrain does not provide free comprehensive early childhood education programs for children under six years old. Instead early years provision is solely provided by the private sector and is licensed under infant-toddler settings (0-3) and kindergarten-preschool settings (3-6) (Hadeed & Sylva, 1999). Currently the combined provision only caters to approximately 24% of Bahrain's total preschool aged children eligible for care; this low access rate can likely be hindered by parental fees where the majority simply enroll their children at the of six into the public education system to avoid private ECEC fees (Ministry of Education, 2011).

### **2.4 Quality**

A recent study undertaken by the Ministry of Education in 2012 indicated that 72% of kindergartens fail to meet minimum classroom regulations and requirements against the standards set by the Ministry. In addition, 77% of preschool teachers have only reached a qualification of a high school diploma, and that there is no set syllabus or curriculum for preschool and early childhood education programs. To further compound the challenges, early childhood programs and classrooms tend to cover a high student to teacher ratio which is lower than commonly agreed international standards, reaching a ratio of up to twenty five students per teacher. Interviews conducted with kindergarten owners and operators suggest these high student-to-teacher ratios are predominantly based on the motivation to increase profits at the expense of children's learning and care (Ministry of Education, 2011).

One of the main factors that contribute to the poor quality and provision for early childhood education provision within the Kingdom of Bahrain is a result of the lack of manpower to properly monitor, evaluate and oversee the various preschools and early childhood programs. Additionally, the Kindergarten Directorate within the Ministry lacks experienced and qualified professionals in the field of early childhood education, a qualification needed to oversee and manage the basic operations of such a directorate.

As for teacher qualification and compensation in terms of salary, currently the teachers' salaries in place within kindergartens average out to only about twenty percent of Ministry of Education primary teachers' salaries. With teaching already a low status profession in Bahrain, remunerating Kindergarten teachers at only 20% of those of primary school teacher is difficult to comprehend. Kindergarten and early childhood educators' low salaries is one of the main factors for difficulties with recruitment. The current average of salaries is equal to the amount given by the Bahrain government to support unemployment. As a result, the employee would prefer not to work, remain at home and gain remuneration as outlined by a recent survey distributed to local kindergartens (Ipsos Marketing Research, 2008).

With the current situation comprising of ECEC access restrictions, low teacher salaries and qualification levels, high staff-child ratios, poor facilities, absence of a unified curriculum, as well as a lack of regulation in place, it is clear that Bahrain is lagging behind many countries in the field of ECEC. However, despite these identified limitations, there is always a way

forward and a solution. The following section will provide potential solutions and policy recommendation towards universal ECEC development in Bahrain.

### **3. Policy Options Towards Universal ECEC Expansion in Bahrain**

There are a number of contrasting strategies and policy options towards the expansion and development of universal ECEC that have been applied internationally. The following policy options were formulated by reviewing a combination of scholarly articles, interest group recommendations and the policies and legislation of other countries.

#### **3.1 Fully Public Central Supply Model**

Evidence suggests that public provision of early childhood education has been a vital element to the development of ECEC in Europe and developed countries whereas in much of the developing world the private sector plays a more central role (UNESCO, 2007). If the government of Bahrain were to offer free public early childhood education provision then not only will that lower the gap to universal coverage for ECEC but also create a bridge between preschool and primary education.

In this model, ownership, management (including hiring of staff and construction of premises), financing, and, to a large extent, facility governance, are all public and managed centrally by the Ministry of the Education following a similar model to the existing public comprehensive education system presently offered. Furthermore, a national competency-based early years curriculum would have to be developed and prescribed due to the lack of private sector involvement and bridged to the already existing national curriculum. Thus, the government would be providing and controlling all inputs.

By integrating early childhood education provision in the public education system and extending public education for younger ages there will be greater consistency in terms of regulation, funding and staffing regimes, curriculum and opening hours. Most importantly, cost free comprehensive early childhood education provision will now be available to parents which will ultimately increase coverage and grant universal access.

On the other hand, this model can prove to be quite costly and not economically efficient since it ceases private sector support. Furthermore, without market competition and parental choice to influence and improve quality it will be difficult to maintain standards unless quality assurance and supervision are enforced. Finally, parental choice and involvement will be limited due to the lack of preschool options available and the central bureaucratic nature of governance (Grun, 2008).

### **3.2 Public-Private Partnership Models**

#### **3.2.1 Needs Based Voucher Programs**

If public early childhood education provision was not available then another model to enhance coverage and ensure universal access is a public-private partnership model supported by needs based voucher programs. In this approach, private and non-profit centers operate early childhood education centers in Bahrain with vouchers provided by the government for low and middle income families based on a sliding scale of support.

By providing vouchers and parent subsidies for ECEC services families will have the choice to opt for the service provider that meets their children's needs best. The logic behind this approach in terms of quality is that of a basic market principle that more information to consumers and competition among providers will eventually bring quality at lower cost to the government (OECD, 2006).

This approach resembles a neoliberal social welfare model in which the creation of markets within the public service sector is seen as a simpler, less expensive and more approachable way to access public services with the government holding a mainly regulatory role and not that of a provider (Giddens, 2003). In addition, public systems can take numerous years to plan, develop and establish early childhood education centers and so it would be a considerable advantage to collaborate with the private sector in the expansion of universal access to ECEC.

#### **3.2.2 Support to Provider Programs**

In this approach, the government funds but contracts operations to private providers of early childhood education programs while ensuring strict regulations and monitoring. The government would provide operating costs to ECEC centers and generally provide wage supplements or staff salaries. It would be the responsibility of the ministry of education to regulate the private providers and services offered while ensuring minimum standards such as staff qualifications and child to teacher ratios are met.

This public-private partnership model has been enforced in many countries e.g. Australia, Canada, Denmark, Finland, Hungary, Ireland, Norway, Sweden, the United Kingdom, and the United States where the state grants operating licenses to providers that uphold quality standards and award them with operational subsidies (OECD, 2006).

One of the major benefits of the public private partnership models is that the government remains directly accountable for providing ECEC services yet at an extensively lower cost than a fully public central supply model, hence playing more of a regulatory and monitoring role (Gallagher & Rooney, 1999). Furthermore, as mentioned previously competition among providers and more information to consumers will eventually lead to enhanced quality provision of ECEC at a lower cost to governments (OECD, 2006).

This model seems to combine the best of both the private and public worlds with the potential to provide quality provision and cost efficiency. Yet, developing and maintaining such an involved partnership and model can be rather difficult to implement for the incentives of both parties can vary greatly. It will require a long term commitment, understanding and mutual respect on both sides of the partnership (Gallagher & Rooney, 1999).

#### **4. Criteria for Decision Making**

Policy options for improving and expanding ECEC in Bahrain have been presented earlier with a brief overview of the main advantages and disadvantages of going ahead with the policy presented. However, how can the government truly decide on what policy to move forward with? This is where criteria for decision making need to be applied. Some of the main criteria to consider include cost, human resources, track record, public acceptance and administrative feasibility as outlined in an article in the Early Education and Development (EE&D) journal (Gallagher & Rooney, 1999).

##### **4.1 Cost**

One of the biggest influences on policy decision making has to be the cost implications for implementing the recommended policy. For example, if the government of Bahrain were to go ahead with the first option of a fully public central supply model this would involve extensive costs which include teacher salaries, infrastructure, resources and much more. These costs can be potentially estimated by calculating the individual costs per child and multiplying it by the potential children ECEC services will be expanded to.

The other options are of a different nature in terms of costing since they are both public-private partnership models. Here, the costs go mainly towards strengthening the already existing system without adding additional personnel costs and also some of the costs will be split between more than one party (government and private sector).

##### **4.2 Human Resources**

Another criterion to be considered in decision making involve the human resources or personnel needs of the various policy options. A fully public central supply model would require additional trained ECEC teachers to cater to the universal application of ECEC services, which would ultimately lead to the need for more revenue for salaries and training costs. On the other hand the other policy options would require trained staff and personnel to oversee the public-private partnerships vouchers models of and support to providers.

### **4.3 Track Record**

Exploring the track record and various experiences in the application of the policy options in different countries and areas is also a very important decision making criterion to consider. Of course a contextual analysis would be needed and no two country's application of the same policy would yield the same results. For example, some countries or states who implement a fully public central supply model of ECEC provision include France, Kuwait and the state of Oklahoma. New Zealand and the Head Start Program in the U.S.A implement a support to providers program, whereas Singapore and Hong Kong have taken a needs based program approach to supplying ECEC provision.

### **4.4 Administrative Feasibility**

A policy option may seem excellent on paper however when it comes to implementation what is its administrative feasibility? For instance, when considering public-private partnership models, how will the government determine which ECEC centers are eligible for subsidies? Who will determine the range of support offered to families on a needs-based voucher program? Whose responsibility will it be to monitor and regulate the ECEC centers, under which ministry will it fall? Many questions such as these would arise when considering administrative feasibility, and they are usually rated by experienced individuals who have attempted implementing versions of these strategies or options. It is important to note that venturing into a completely new policy option, with no previous administrative structure, can lead to an administrative nightmare for policy makers, decision makers and parties involved.

## **5. Ensuring Quality Early Childhood Education Provision**

### **5.1 Minimum Standards**

To guarantee the health and safety of children and to ensure the conditions of learning and care, minimum standards for ECEC need to be developed. Defining minimum standards for early childhood education centers is a positive step to ensure that the physical environment, staff qualification levels and curriculum, as well as other areas, are at least meeting standards seen as acceptable. Through regulating and ensuring minimum standards are in place and frequently updated, all children (and their families) in Bahrain will benefit from a minimum quality of education and care (Belskey, 2011).



### **5.2 Ratios of Adults to Children**

Research suggests that staff-child ratios play a critical role in ensuring quality for enhanced child development. In fact, it is often the most consistent indicator of high quality learning as it increases the potential for meaningful interactions between children (Pianta, Barnett, Burchinal, & Thornburg, 2009). Currently the Ministry of Education's minimum standards for staff ratios to children are 25:1, which is a very high ratio for early childhood education centers. To achieve quality ECEC provision, staff ratios in early childhood education centers need to be reduced to a ratio of ten children per trained staff (10:1) in line with international benchmarks such as New Zealand and the United States.

### **5.3 Teacher Qualifications**

ECEC teacher qualifications and salaries also need to be reviewed by the Ministry of Education in Bahrain in order to ensure quality. Research shows that qualified teachers are better able to captivate and engage children, increase their opportunities for learning, monitor their progress and provide children with more stimulating and positive interactions (OECD, 2012). The Bahrain Teacher's College (BTC), established in 2008 as a college of the University of Bahrain which offers various teacher education programmes needs to be approached to explore new qualifications. An aspired future envisions the BTC designer and offering a Bachelor of Education in Early Childhood Education B. Ed (ECE), and also a Post Graduate Diploma in Education in Early Childhood Education PGDE (ECE), to not only ensure the qualification level of future ECEC teachers but also offer in service training for current teachers.

### **5.4 Teacher Salaries**

When exploring teacher salaries, minimum wages for ECEC teachers need to be considered to equal that of current public school primary teachers. By setting a minimum salary for ECEC staff, teacher's motivation will certainly be increased, of which the strategy is to attract more highly motivated, professional and proficient staff to the sector. Furthermore, a research study by scholars (Pianta et al, 2009), articulated that qualified pre-primary teachers who were given higher salaries (which were equivalent to that of their primary education colleagues' salaries), resulted in higher student performance (Pianta, Barnett, Burchinal, & Thornburg, 2009). This research shows the correlation between and advantages of establishing and implementing minimum salaries for ECEC teachers, both for the teachers and students.

### **5.5 Teacher Salaries**

As mentioned previously, there is currently no unified or set curriculum for early childhood education centers in Bahrain. The development of a coherent standards-based curriculum will ensure consistency among early childhood education centers, whilst establishing common goals and objectives for educators.

The development of coherent standards based and appropriate curriculum for early childhood education centers in Bahrain can be a complicated process due to the fact that curricula are often influenced by many factor including societal values, culture, content standards, research, language and community expectations. However, in spite of all of these factors a well-developed and implemented ECEC curricula needs to provide developmentally appropriate support and cognitive challenges which can be linked to positive child outcomes (Frede, 1998).

When designing an ECEC curriculum, it is important to look beyond curriculum dichotomies or rather between a purely academic cognitive based or comprehensive holistic curriculum. Research shows that high ECEC centers are related to curricula where cognitive and social development go hand in hand and are equally important (Siraj-Blatchford, 2010).

### **5.6 Physical Environment**

In terms of the physical environment of early childhood education centers, research implies that the design, layout and size of ECEC environments all play a key role in a child's learning, imagination, creativity and interests (Dearing, McCartney, & Taylor, 2009). Minimum standards for ECE center's classroom environment, facilities, playgrounds and safety regulations need to be reviewed to ensure minimum standards for ECEC environments such as a minimum of 2.5 sqm per child of space inside classrooms, and 6 sqm per child for outdoors and indoor play areas (OECD, 2012).

## **6. Barriers to Accessing Quality ECEC in Bahrain**

### **6.1 Structural Inefficiencies**

Due to the current fragmented system of the administration of ECEC services in Bahrain between several ministries and the private sector there is a lack of data and indicators for monitoring and evaluation, this proves to be a barrier to strategic planning for ECEC development. The improvement and development of ECEC provision depends on up-to-date data on relevant indicators, for without this data it would be challenging for the government to plan for and deliver ECEC relevant services and achieve universal coverage (UNESCO, 2007).

Another structural obstacle to accessing quality ECE in Bahrain is that of access and the current low coverage of only 24% of children attending early childhood education programs. This is due to the fact that there are no financial assistance programs or subsidies made for families who cannot afford private provision (which is the only option currently available) thus the majority of families choose instead to enroll their children in free comprehensive public schools at the entry age of six years old, consequently missing out on crucial years for care and development.

## **6.2 Financial Constraints**

The educational budget in Bahrain has steadily decreased due to lower oil prices which exacerbate existing structural weaknesses in Bahrain's public finances (EDB , 2014). This limits the financial resources available to implement new reforms. Because of the lack of available finances and resources the majority of preschools and early childhood education centers in Bahrain are operating with outdated curricula, inadequate training materials and unqualified staff.

In regards to teacher education, it is important to note that only 23% of preschool teachers have acquired university degrees with the remaining 73% holding high school diplomas. The lack of available funding to encourage and provide the incentives for teachers to take part in training has led to lower quality of ECEC provision (Ministry of Education, 2011).

In addition, as mentioned previously, in terms of teacher salaries currently preschool teachers' salaries average out to only about twenty percent of Ministry of Education primary teachers' salaries (which is already a low paying profession in Bahrain). The government of Bahrain is financially unable to raise teacher salaries at the present time, which probably explains the low teacher morale perceived in Bahrain (Ipsos Marketing Research, 2008).

## **6.3 Lack of Political**

The government of Bahrain currently views ECEC as the private responsibility of parents and not that of the public or state government. This can be witnessed in the fact that currently there is no public, free and comprehensive form of preschool provision. Furthermore, low public expenditure on ECEC and the absence of formal legislation shows a lack of political will and action towards effective policies and strategies for the development of early childhood provision in Bahrain.

## **7. Conclusion**

In conclusion, this report has given an overview of the current provision for ECEC in Bahrain

and has briefly outlined some of the major policy options and considerations that seem to be available for the expansion and development of universal ECEC.

The way forward and deciding on what option or perhaps combination of options would depend on many factors such as the costs, administration feasibility, human resource needs and overall public acceptance of that policy alternative. Such a decision would encompass our personal values, our perspective on the importance of ECEC and of the practicality of restructuring the current provision for ECEC services.

## References

- Al-Misnad, S. (1985). *The Development of Modern Education in the Gulf*. London: Ithaca Press.
- Barnett, W. (1995). Long-term effects of early childhood programs on cognitive and school outcomes. *The Future of Children*, V, 25-50.
- Behrman, R. (1995). Long-Term Outcomes of Early Childhood Programs . *The Future of Children* .
- Belgrave, C. (1960). *Personal Column*. London: Hutchinson.
- Belsky, J. (2011). *Child Care and Its Impact on Young Children*. Retrieved February 10, 2013, from Encyclopedia on Early Childhood Development : [http://www.child-encyclopedia.com/pages/PDF/BelskyANGxp3-Child\\_care.pdf](http://www.child-encyclopedia.com/pages/PDF/BelskyANGxp3-Child_care.pdf)
- Bennett, J. (2008). *Early Childhood Education and Care Systems in the OECD Countries: the Issue of Tradition and Governance*. Retrieved February 10, 2013, from Encyclopedia on Early Childhood Development : [www.child-encyclopedia.com/pages/PDF/](http://www.child-encyclopedia.com/pages/PDF/)
- Blau, D. (1999). The Effects of Childcare Characteristics on Child Development. *Journal of Human Resources*, 34, 786-822.
- Bruce, T., Meggitt, C., & Grenier, J. (2010). *Child Care & Education*. London: Hodder Education.
- Dearing, E., McCartney, K., & Taylor, B. (2009). Does higher quality early child care promote low-income children's math and reading achievement in middle childhood? *Child Development*, 80(5), 1329-1349.
- Directorate of Planning. (2014). *Annual Education Statistics Report* . Bahrain: Ministry of Education.
- EDB . (2014). *Bahrain Economic Quarterly*. Manama: Bahrain Economic Development Board.
- Fernandez, R., & Rodrik, D. (1991). Resistance to Reform: Status Quo Bias in the Presence of Individual- Specific Uncertainty. *The American Economic Review*, 1146-1155.

- Frede, E. C. (1998). Preschool program quality in programs for children in poverty. In Barnett, & Boocock, *Early Care and Education for Children in Poverty: Promises, Programs, and Long-term Outcomes* (pp. 77-98). Buffalo: NY: SUNY Press.
- Gallagher, J., & Rooney, R. (1999). Policy Options for Early Childhood: A Model for Decision Making. *Early Education and Development*, 69-82.
- Giddens, A. (2003). *The Progressive Manifesto*. Cambridge: Polity Press.
- Grun, R. (2008). *Financing Early Childhood Development: A Look at International Evidence and its Lessons*. World Bank .
- Hadeed, & Sylva. (1999). Center Care and Education in Bahrain: Does It Benefit Children's Development? *Early Child Development and Care*, 67-87.
- Hadeed, J. (1994). Preschool Teacher Training in Bahrain: An Overview. *The International Journal of Early Childhood Education*, 26(2), 21-26.
- Heckman, J. (2000). *The real question is how to use the available funds wisely. The best evidence supports the policy prescription: Invest in the Very Young*. Chicago: Ounce of Prevention Fund and the University of Chicago Harris School of Public Policy Studies.
- Heckman, J., Moon, S., Pinto, R., Savelyev, P., & Yavitz, A. (2009). The Rate of Return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94, 114-128.
- Ipsos Marketing Research. (2008). *Kindergarten Evaluation Survey*. Manama.
- Ministry of Education. (2011). Directorate of Kindergarten. Kingdom of Bahrain.
- Ministry of Education. (2011). *Early Childhood Education in Bahrain*. Isa Town: Ministry of Education.
- Mitchell, A. (2009, May/June). Four good reasons why ECE is not just important, but essential. *Advocacy Exchange*.
- NIEER. (2004). *Child Outcome Standards in Pre-K Programs: What Are Standards; What Is Needed To Make Them Work?* New Jersey : NIEER.
- OECD. (2006). *Starting Strong II: Early Childhood Education and Care* . Paris : OECD Publishing.
- OECD. (2012). *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care*. OECD Publishing .
- Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The Effects of Preschool Education: What We Know, How Public Policy Is or Is Not Aligned With the Evidence Base and What We Need to Know. *Psychological Science in the Public Interest*, 10(2), 49-88.
- Schweinhart, L. (2006). Retrieved March 7, 2013, from Encyclopedia on Early Childhood development: [www.child-encyclopedia.com/pages/PDF/SchweinhartANGxp.pdf](http://www.child-encyclopedia.com/pages/PDF/SchweinhartANGxp.pdf)
- Schweinhart, L. J. (2005). *The High/Scope Perry Preschool Study Through Age 40*. Michigan: High/Scop Educational Research Foundation .

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Shonkoff, J. P., & Phillips, D. A. (2000). *From Neurons to Neighborhoods : The Science of Early Childhood Development* . Washington DC: National Academies Press.

Siraj-Blatchford, I. (2010). A focus on pedagogy: Case studies of effective practice. In K. Sylva, E. Melhuish, P. Sammons, I. Siraj-Blatchford, & B. Taggart, *Early childhood matters: Evidence from the Effective Pre-school and Primary Education Project* (pp. 149-165). London: Routledge.

UNESCO. (2007). *Strong Foundations: Early Childhood Care and Education* . Paris : UNESCO Publishing .