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# Approaching The Problem of Equity, Quality, and Access of Early Childhood Care and Education: A Descriptive Analysis of Growth and Development in the Arab States

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APPROACHING THE PROBLEM OF EQUITY, QUALITY AND ACCESS OF  
EARLY CHILDHOOD CARE AND EDUCATION: A DESCRIPTIVE ANALYSIS OF  
GROWTH AND DEVELOPMENT IN THE ARAB STATES

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Submitted in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education  
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**COLLEGE OF EDUCATION AND HUMAN SERVICES**  
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## Abstract

### **Approaching the Problem of Equity, Quality and Access of Early Childhood Care and Education: A Descriptive Analysis of Growth and Development in the Arab States**

Improving Early Childhood Care and Education (ECCE) is growing as an international priority, expressed through multiple research, policy initiatives, social intervention and advocacy. ECCE programs of high quality have the potential to improve the health and nutrition of young children, to prepare them for elementary education, to guarantee that their rights are respected and to reduce inequality. The purpose of this study was to examine the factors that play a role in the slow provision of early childhood care and education programs in the Arab States, compared to other regions in the world. From a political and economic standpoint, this study focused on explicating the relationships among governmental policy variables, economic conditions and the provision of quality ECCE. Socially and culturally, this study investigated the relationships between social and equity variables and levels of teacher readiness, as significant predictors of quality ECCE programs in the Arab States.

The data used in this study was obtained from the 2007 and 2008 statistical annexes from UNESCO's Education for All Global Monitoring Reports. A selected set of core health and education indicators were examined and analyzed in conjunction with the research questions that guided this study. These indicators can be categorized into six areas: (a) enrollment; (b) expenditures; (c) teaching staff; (d) efficiency and quality; (e) equity and access; and (f) child well-being.

The significant findings suggest the following: (a) lack of legislations for compulsory pre-primary education in all Arab countries resulted in overall low participation in pre-

primary education; (b) great disparity is evident between Arab countries in terms of their ECCE policies and legislations, governance and funding allocations; (c) privatization of ECCE, high fees, and inadequate governmental funding to ECCE programs limited access of many vulnerable and disadvantaged children to pre-primary education; (d) the healthier the children, the better chances they are enrolled in pre-primary education; (e) with more funding on staffing and professional development, children have better chances of attending smaller classes, and thus receive quality ECCE services; (f) overall, pre-primary education enrollment still remains low in the Arab Region compared to other countries in the world.

## ACKNOWLEDGEMENTS

In the name of God the Graceful and Most Merciful, I commence my dissertation. I thank God for bestowing knowledge upon me and for giving me this great opportunity of pursuing my doctoral degree. Without the support of those who believed in me, this long journey would have never been a success. I promise to utilize this education in the betterment of humanity and the quality of our lives.

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## DEDICATION

This dissertation is dedicated to my **mom** and **dad**, my husband **Majed**, and my children, **Enas**, **Feras**, and **Aseel**.

**Mom and Dad**, without you, I wouldn't be the person I am now. You always made me feel special with your endless love and care. Mom, your advices and caring personality always pushed me to be a great mother and guardian. Dad, I grew up always seeing you as a man of wisdom. Your hardworking personality inspired me to always aim high. You both have truly set the bar high for parents everywhere. I hope that one day my children will admire me as much as I do the two of you!

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## Chapter I

### Introduction

Improving early childhood care and education (ECCE) is now an international priority, expressed through multiple research studies, policy initiatives, social intervention and advocacy (Nsamenang, 2006; Woodhead, 2006). Enhancing the quality of young children's lives and initial education were the focal points of both the 1990 World Conference on Education for All (EFA)<sup>1</sup> and the 2000 World Education Forum at Dakar<sup>2</sup>. Commitments made by the international community highlighted the national and controversial perspectives of quality, equity and access in education where the first goal calls on countries to expand and improve early childhood care and education, especially for the most vulnerable and disadvantaged children. Consequently, the 2002 UN General Assembly Special Session on Children<sup>3</sup> reaffirmed the importance of ECCE in reaching basic education goals, where care and education cannot be separated and good-quality provision for young children necessarily addresses both. The adopted Plan of Action committed member states to consign to the "Development and implementation of national early childhood development policies and programs to ensure the enhancement of children's physical, social, emotional, spiritual and cognitive development." Accordingly, in 2003 a UNESCO report on gender and education for all, stated that children entering primary schools in many regions are still very differently

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<sup>1</sup> In Jomtien, Thailand (March 1990), delegates from 155 countries, as well as representatives from some 150 governmental and non-governmental organizations, adopted a *World Declaration on Education for All*, which reaffirmed the notion of education as a fundamental human right and urged countries to intensify efforts to address the basic learning needs of all.

<sup>2</sup> The 2000 World Education Forum in Dakar was convened to assess and analyze the progress toward EFA since Jomtien.

<sup>3</sup> It was convened to review progress since the World Summit for Children in 1990 and re-energize global commitment to children's rights.



equipped in preparation, that ECCD is very unequally distributed and particularly prominent in urban/rural disparities, and that governments, especially in developing countries, are either unable or unwilling to provide pre-primary education (UNESCO,2003).

Even though recognized as a right by the 1989 Convention on the Rights of the Child, ECCE is still showing sustainable slow progress and limited growth in most of the developing countries, including the Arab States. Millions of children in the Arab States are not provided pre-primary education<sup>4</sup> and lack access to child care programs, adequate nutrition, basic immunization, clean water, and the early nurturing environment they should receive in order to develop appropriate cognitive, emotional and social skills (UNESCO, 2006a).

### **Background of the Study: ECCE in the Arab States**

This study looks into the possible antecedents of slow development and provision of ECCE in the Arab states. Several research studies have established the links between the well-being of young children (child survival, mortality rates, and nutrition), poverty levels, gender disparity, quality of teaching staff and the provision of quality ECCE programs. (Ben- Arieh, 2006; Dahlberg, 1999; Meyers, 2006; World Bank, 2007a). Since the 1970s, the Arab States region has registered a slow but steady increase of enrollment in pre-primary education. According to the “Directory of Early Childhood Care and Education Organizations in the Arab States” (UNESCO, 1995), most Arab States have shown a gradual rise in the gross pre-primary enrolment ratio between 1985 and 1995, with an 11% rise between 1999 and 2004 (UNESCO, 2004b) . In some States, pre-primary education takes on

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<sup>4</sup> The International Standard Classification of Education (ISCED) defines pre-primary education as level 0, i.e. it is normally designed for children aged 3 and above and includes all programs that offer a structured and purposeful set of learning activities (e.g. kindergarten, nursery school, preschool, etc)

a traditional form, such as the *Kuttab*<sup>5</sup>, supported by governments as in the case of Morocco and Mauritania. The noticed slow but steady progress can be attributed partly to the fact that early childhood education is considered an important factor for laying a strong foundation for efficient and valuable learning in primary and later stages of schooling (Haddad, 2002). Furthermore, a high social demand exists for schooling in Arab States, as Islam summons for education from the cradle to the grave. Yet, compared to other regions in the world, participation in pre-primary education remains low in the Arab region: the regional gross enrollment ration (GER) was only 16% in 2004, a mere one percentage point higher than in 1999 (15%) (UNESCO, 2006b).

Many factors play a role in the slow provision and development of ECCE in the Arab states. These factors include location (urban or rural areas), lack of resources and funds, and inadequately trained personnel (UNESCO, 2006a). Moreover, limited access to ECCE institutions and programs in the Arab states is contributed to the absence of legislation for compulsory education in some countries where ECCE is not considered a public or governmental responsibility.

Understandings of and approaches to early childhood vary depending on local traditions, cultures, family structures and the organization of primary schooling. Access to ECCE institutions is impacted by the prevalence of habits and traditions that limit education, especially for girls, who are less likely to be encouraged to go to these programs, in particular in rural areas (Dahlberg, 1999; Nsamenang, 2006; Woodhead, 2006).

Notwithstanding these challenges, in the Arab States, the good-quality provision for young children should address both care and education in order to provide children and families with stability, equity, comprehensiveness and quality of care and education, and

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<sup>5</sup> Kuttab are schools devoted to teaching the Holy Quran.

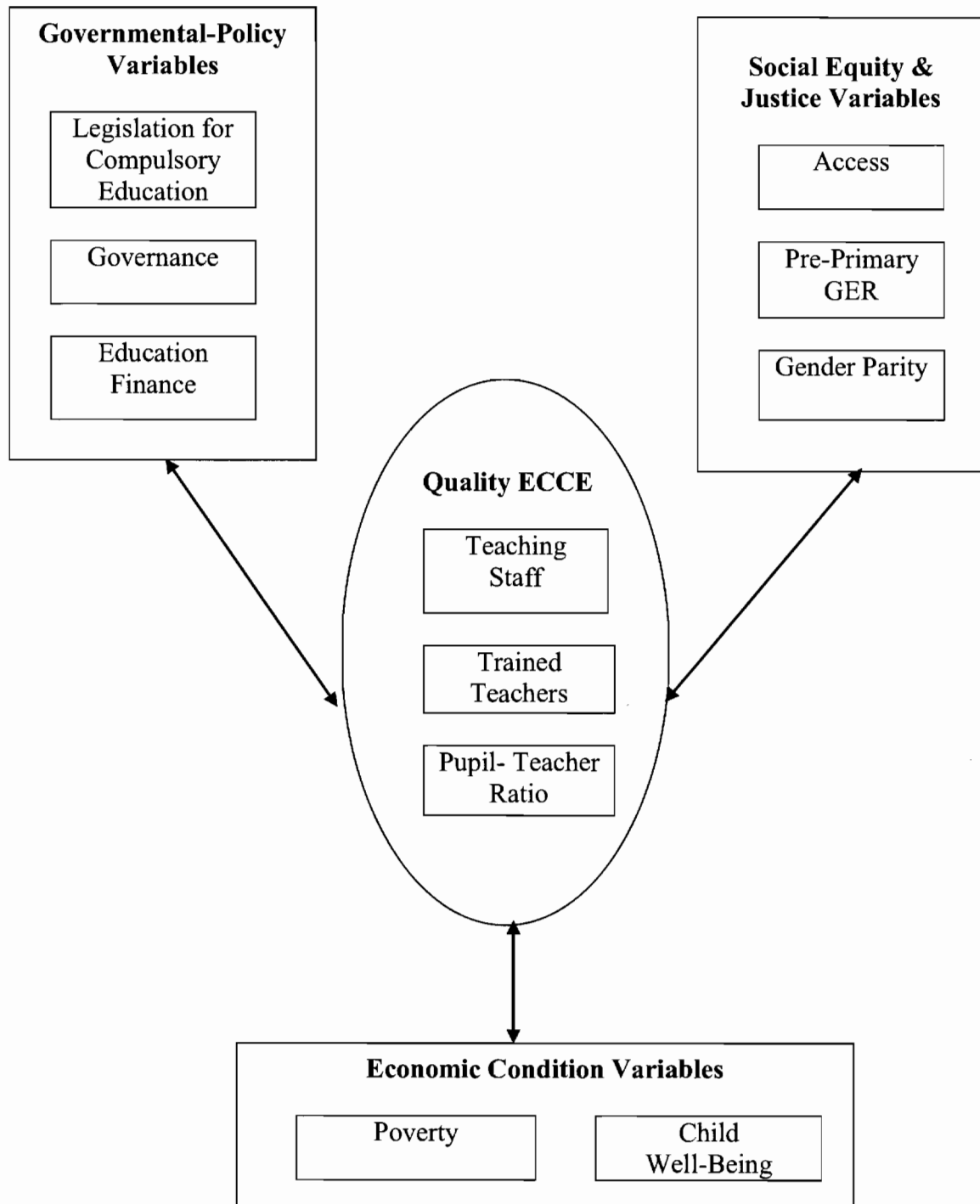
more importantly, regional sustainable development. A comment on Education for All (EFA) goal 1 mentioned in EFA Global Monitoring Report 2007 (UNESCO, 2006b) states:

“Governments, through relevant ministries, have the primary responsibility of formulating early childhood care and education policies within the context of national EFA plans, mobilizing political and popular support, and promoting flexible, adaptable programs for young children that are appropriate to their age and not mere downward extensions of formal systems.” This echoes what the 2000 Arab Framework for Action stressed that “governments of the Arab States..... hold responsibility for immediate action towards achieving the goals of education for all, and for leading and coordinating actions aimed at achieving these goals.” (p. 5)

### **Conceptual Framework**

The worldwide public awareness of the critical perspectives of early childhood education and development has been increasing significantly in recent years. The fundamental need for early childhood care intervention and provision has been fueled by the growing body of research and theories on the benefits of early childhood education. However, the interactions between early childhood theories (emotional, social, cognizant, and developmental), policies, and practices are quite complex and multifaceted, making policy decisions that are aimed at improving the quality of lives of young children and their families problematic. This is the case in the Arab States region where social equity and justice variables intervene with effective production of governmental policies that impact the quality and access of equitable opportunities of ECCE, especially for disadvantaged children. Figure 1 is a conceptual model that shows the relationship between governmental-policy variables, economic conditions, social equity and justice indicators and the provision of

quality ECCE based on the findings of previous research. While there should be more studies on the possible variables affecting the quality, equity and access of ECCE, there seems to be a growing consensus on the relationships (see Figure 1) between the researchers and statisticians studying quality ECCE provision. Yet, the relationship between governmental and economic variables that are potential antecedents of slow provision of quality ECCE in the Arab States needs to be analyzed further. This study intends to test the relationships among three sets of indicators: (a) governmental-policy; (b) economic; (c) social equity and justice and their influence on quality ECCE access in the Arab States.



*Figure 1.* A hypothesized relationship among Governmental Policy Variables, Economic Conditions, Social Equity & Justice, and Quality ECCE.

### Statement of the Problem

UNESCO's early childhood goals include: (a) support of early childhood development; (b) strengthening family support policies; and (c) promoting early childhood networking and partnerships (UNESCO, 2004a). Yet, in the Arab States region, policy implications for ECCE are in their primary stages where obstacles to quality pre-primary education are impeding wider participation of children in the Arab States region in ECCE programs. Hence, early childhood education still does not receive the required attention and quality education is a privilege for a few. Multiple factors account for the relatively slow growth of ECCE enrollment in the Arab States region, in comparison to other developed and transition countries. What is evident from existing data of the Arab States region is that: (a) the principles of equity and access to pre-primary educational opportunities are not yet considered essential or fundamental to ensure basic learning needs; (b) Gender discrimination in basic education is nevertheless incompatible with social equity and with development needs, as a breach in human rights; and (c) Quality of education remains an issue and is being addressed gradually through reforms in teacher training, decentralization, administrative capacity, and the curriculum (Wils & Barrow, 2005).

While the benefits of ECCD programs are fairly obvious and include better preparation for primary education, not all benefits are education-related. Children who are cared for and nurtured appropriately grow and develop in healthy ways, experience fewer illness and diseases, and develop appropriate cognitive, language, emotional, and social skills. The adequacy of care and nurturing will ultimately determine the child's physical growth which in turn affects how a child navigates through the learning process. What is controversial now is that learning and growth cannot be separated; both are thoroughly integrated parts of a complicated process (UNESCO, 2002). Yet, in the majority of Arab

States, about 20% or more of children under age 5 suffer from moderate to severe stunting, with an ultimate negative repercussion on their school performance (UNESCO, 2006a). Many studies show that underdeveloped children (particularly those short for their age) are less likely to enroll in school and more likely to enroll late and drop out. Poor school progression and completion is a major concern, especially for the disadvantaged children who are not protected by national early childhood policies.

In sum, early childhood programs need to provide children and families with quality of care, equity and access. Yet, in Arab States region, ECCE is still in its preliminary stage and many children in the region lack equitable access to quality ECCE.

### **Purpose of the Study**

This study approached the problem of the relatively low progress and short provision of ECCE in the Arab States region from political, economic, social, and cultural perspectives. Politically and economically, this study focused on explicating the relationships among governmental policy variables, economic conditions, and the provision of quality ECCE in the Arab States. Socially and culturally, this study investigated the relationships between social and equity variables and levels of teacher readiness, as significant predictors of quality ECCE programs in the Arab States.

Specifically, the purpose of the study is to explore the factors and policies, if there were any, that impact the provision of ECCE in the Arab States region according to the following holistic scope and policy objectives associated with ECCE around the world: (a) providing health care, immunization, feeding and nutrition; (b) supporting new parents through information sharing and parenting education; (c) creating a safe environment for young children; (d) compensating for disadvantage and fostering the resilience of vulnerable

children; and (e) promoting “school readiness” and preparation for primary school(UNESCO, 2006b).

### **Research Questions**

To examine the factors that relatively slow the progress of quality ECCE programs in the Arab States, the study focused on the following research questions:

1. What are the main areas and levels of *ECCE policy* regulations and implementation in the Arab States?
  - a) What are the legislative policies that have been developed to promote compulsory pre-primary education?
  - b) Does ECCE governance influence the quality, access and equity of ECCE?
  - c) How does pre-primary education finance in particular and education finance in general impact ECCE provision in the Arab States?
  
2. What are the relationships between *child well-being* conditions and equitable access of ECCE in the Arab States?
  - a) How does poverty impact ECCE provision?
  - b) Is there a relationship between poverty levels and quality ECCE?
  
3. What is the relationship, if any, between *gender disparity* in pre-primary education and quality ECCE in the Arab States?
  - a) Does gender disparity in pre-primary education influence gender disparity in primary education?
  - b) Does enrollment of students with ECCE experience in first grade correlate with gender disparity in pre-primary education?



4. What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and *primary education*?
  - a) How does pre-primary education impact primary education?
  - b) Does pre-primary education influence the internal efficiency of primary education measured by rates of dropout in grade 1 and survival to grade 5?
  - c) What is the predictive strength of quality ECCE on primary education?
5. How does *ECCE provision* in the Arab States compare to other developing countries, measured by progress towards EFA goal 1?

### **Rationale for the Study**

Due to the negative consequences of low participation and provision of ECCE programs in the Arab States region, ensuring quality, equity, and access of ECCE pose a major challenge not only for local governments and stakeholders, but also for international agencies and organizations (Haddad, 2002). To approach the problem of poor ECCE provision, it is fundamental to examine the following: how the political, economic, social, and cultural perspectives formulate the levels of access, equity, and quality of ECCE programs in the Arab States region.

This study was intended to help better understand how policies of early childhood care and development are crucial to the expansion and diversification of ECCE delivery services, and to the innovation and improvement of educational curricula. Concurrently, one has to bear in mind that early childhood care and development is not only confined to pre-schooling, but also includes care given by the whole family from birth onwards (Arnold, 2006).

Specifically, the findings of the study were expected to contribute to: (a) producing a deeper understanding of the related variables of political and economic conditions on quality ECCE; (b) spurring discussions about how to improve access and equity of ECCE by implementing more rigorous teacher training programs; (c) informing policymakers and stakeholders in regards to making better decisions about staff requirements; and (d) coordinating mechanisms to provide a forum for potentially achieving a common vision encompassing resources, standards, regulations, training and staffing (Faour, Hajjar, Bibi & Chehab, 2006).

### **Delimitations and Limitations of the Study**

This study is delimited to one data source: the 2007 and 2008 statistical annex from UNESCO's Global Monitoring report. Data collected was based on survey results and questionnaires reported to and processed by UNESCO Institute for Statistics (UIS). Inherent limitations of this study lie in the availability of data and reliability of its analysis. Missing data, estimates, and educational policy changes contribute to the reliability of presenting the data. For example, where obvious inconsistencies exist between enrollment reported by countries and the United Nations population data, UIS may decide to not calculate or publish the enrollment ratio, resulting in missing data and gaps. In some cases, countries may have their own definitions of educational levels (official pre-primary entry age) that do not correspond to ISED. Therefore, some differences between nationally and internationally reported enrollment ratios may occur.

### Definition of Terms

The following terms are defined to clarify the terminology used in this study:

1. *Early childhood care and education (ECCE)* refers to programs that, in addition to providing children with care, offer a structured and purposeful set of learning activities either in a formal institution (pre-primary) or as part of a non-formal development program. ECCE programs are normally designed for children from age 3 and include organized learning activities that constitute, on average, the equivalent of at least 2 hours per day and 100 days per year.
2. *Early child development (ECD)* refers to the combination of physical, mental, and social development in the early years of life – those dimensions that are commonly addressed by integrated programs of ECCE. As Myers (1992) and Young (1999) explained, these programs include interventions to improve the nutrition, health, cognitive development, and social interaction of children in the early years.
3. *Equity* refers to the extent to which educational opportunities are accessible and fair for children. This implies to reduction in disparities based on gender, poverty, residence, ethnicity, language and other characteristics.
4. *Governmental- policy variables* refer to legislation for compulsory education, governance, and education finance.
  - a. *Legislation for Compulsory Education*, in this study, refers to the passing of legislation making school attendance compulsory for children of pre-primary age.
  - b. *Governance* refer to the allocation of responsibility within and across levels of government and between public and non-public actors. Three levels of governance are available:

1. *Administrative Organization*; the agencies responsible for ECCE at national level and the extent to which care and education are integrated;
  2. *Decentralization*; the extent to which authority for ECCE is vested in substantial levels of government;
  3. *Role of private sectors*; the extent to which early childhood policy-making and service delivery are shared with non-public actors.
- c. *Education Finance* is defined as the relative share of public and private expenditure and funding of ECCE.
5. *Economic Conditions Variables* refer to poverty and child well-being.
- a. *Poverty* can be understood and measured in two ways: absolute and relative:
    - 1) Absolute poverty is defined as the inability to purchase or consume a fixed minimum of goods and services in a given time;
    - 2) Relative poverty is defined in relation to general expectations of a society, taking into account issues such as social exclusion and deprivation (Montgomery, Burr & Woodhead, 2003)
  - b. *Child Well-Being*, in this study, refers to the level of mortality rates, birth weight, wasting, stunting and immunization.
6. *Social Equity and Justice Variables* refer to access and gender parity.
- a) *Access* is defined as the opportunity to experience and participate in ECCE programs.
  - b) *Gender Parity Index (GPI)* is defined as the ratio of female to male values of a given indicator.
7. *Quality ECCE* in this study is measured by the following indicators: pupil/teacher ratio; teaching staff; and 3) trained teacher.

- a) *Pupil/teacher ratio (PTR)* refers to the average number of pupils per teacher as a specific level of education, based on headcounts for both pupils and teachers.
- b) *Teaching staff* refers to the number of persons employed full time or part time in an official capacity to guide and direct the learning experience of pupils and students, irrespective of their qualifications or the delivery mechanism.
- c) *Trained teacher* is defined as the teacher who has received the minimum organized teacher training normally required for teaching at the relevant level in a given country.

8. *Arab States*: in this study refer to 20 developing countries/ territories, which are: 1) Algeria; 2) Bahrain; 3) Djibouti; 4) Egypt; 5) Iraq; 6) Jordan; 7) Kuwait; 8) Lebanon; 9) Libya; 10) Mauritania; 11) Morocco; 12) Oman; 13) Palestinian Territories; 14) Qatar; 15) Saudi Arabia ; 16) Sudan; 17) Syria; 18) Tunisia; 19) United Arab Emirates; and 20) Yemen.

9. *UNESCO* refers to United Nations Educational, Scientific and Cultural Organization.

10. *UNICEF* refers to United Nations Children's Fund.

11. *Education for All (EFA) Global Monitoring Report<sub>2</sub>* is an annual publication prepared by an independent team based at UNESCO. It monitors progress towards the six Education for All goals adopted in Dakar, Senegal in 2000. These goals are:

- 1. Expand and improve early childhood care and education;
- 2. Provide free and compulsory universal primary education by 2015;
- 3. Equitable access to learning and life-skills programs;
- 4. Achieve a 50% improvement in adult literacy rates;
- 5. Eliminate gender disparities in primary and secondary education by 2005 and at all levels by 2015; and
- 6. Improve all aspects of the quality of education.

12. *Gross Enrollment Ratio (GER)* refers to the total enrollment in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education.

13. *Gross Intake Rate (GIR)* refers to the total number of new entrants to a given grade of primary education, regardless of age, expressed as a percentage of the population at the official school entrance age for that grade.

14. *Net Enrollment Ratio (NER)* refers to the enrollment of the official age group for a given level of education, expressed as a percentage of the population in that age group.

15. *Net Intake Rate (NIR)* refers to new entrants of the first grade of primary education who are of the official primary-school entrance age, expressed as a percentage of the population of that age.

16. *New entrants to the first grade of primary education with ECCE experience* refers to the number of new entrants to the first grade of primary school who have attended the equivalent of at least 200 hours of organized ECCE programs, expressed as a percentage of the total number of new entrants to the first grade.

## Chapter II

### REVIEW OF THE LITERATURE

To trace research trends, identify research gaps, and find effective methods of examining the area of interest for this study, this chapter reviews studies of early childhood education as a human right and literature on the critical perspectives of early childhood care and development. First, the literature of early childhood care and education is reviewed, and the aspects of promoting quality, equity, and access in ECCE are discussed. Then, factors related to the growth of early childhood care and education are examined focusing on both the economic and the social equity variables. The next body of literature reviewed is on governmental policies and their implications to quality ECCE. Within this section on early childhood education policy, the focus is on elucidating the notion of compulsory legislations relating to ECCE and its governance factor. While governmental policies are considered as a significant variable in fostering quality ECCE, few studies of ECCE policies were available to review because, until recently, this topic has not been receiving the required attention. Thus, ECCE policies are discussed within the context of the literature work on quality early childhood education. Finally, the literature on ECCE in the Arab States region is reviewed, which is the research setting of this study.

The review considers: (a) the benefits of early childhood development especially for the most disadvantaged children; (b) the rationale for studying quality early childhood development and care in relation to economic and social equity conditions; (c) the changing perspectives on early childhood in terms of theory, research and policy; (d) the reasons for using teacher qualifications and readiness as indicators to monitor quality ECCE; and (e) the challenges and opportunities to ECCE in the Arab States region.

## Early Childhood Development and Education

According to the National Research Council (2001) “children come into the world eager to learn. The first five years of life are a time of enormous growth of linguistic, conceptual, social, emotional, and motor competence. Right from birth a healthy child is an active participant in that growth, exploring the environment, learning to communicate, and relatively short order, beginning to construct ideas and theories about how things work in the surrounding world (p.10).”

Over the past few decades, research in the field of early childhood development<sup>6</sup> and education has increased the awareness of the international community about the importance of the early years of a child’s life. (Arnold, 2004; Penn, 2002; World Bank, 2007a; Young, 1999). A child’s development and experience during the infant and preschool years lay a critical foundation for later growth and subsequent development, as an adolescent and as an adult. It is how a child is nurtured socially, emotionally, intellectually, and physically that greatly impact a lifelong learning process (UNESCO, 2004). Research on the brain shows that early experiences can shape individuals’ development (Shore, 1997) and that early childhood offers a unique opportunity to change the life course of all children, especially those at risk. Children who are well nurtured can live well and can create better societies for all. Children are our future and as Young (2002) commented that by investing in the earliest years of their lives, we invest in everyone’s human and economic development.

Unfortunately, these early years are the least likely to receive investment from many governments. In most Majority World<sup>7</sup> countries less than 1% of the total education budget is allocated to early childhood education (UNESCO, 2004a). This lack of investment is

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<sup>6</sup> Throughout the paper, the term “childhood development” and “childhood care” are used interchangeably to correspond to the early childhood intervention programs needed in the early years of a child’s life.

<sup>7</sup> Majority World countries are developing countries.



connected to different early education policies, where individual national contexts are influenced by varying political, cultural, economic, and demographic trends (Arnold, 2004). A crucial but often ignored facet of early childhood reality is how humanity's universal needs of thriving, health, nutrition, social interaction, and education are all guided and socialized across the world's diverse cultures (Nsamenang, 2006). According to Cunningham (1991) and Hendrick (1997), childhood has been differently understood, institutionalized and regulated in different societies and periods of history. Early childhood has been differentiated according to children's social and geographic location, ethnicity, gender, wealth or poverty, among other factors. In a similar vein, other researchers look at early childhood as a political issue marked by gross inequalities – locally and globally- where resources, access, and opportunities are neither dispensed evenly nor applied fairly (Montgomery, Burr & Woodhead, 2003).

These multiple perspectives draw our attention to the ways early childhood is constructed and reconstructed, and how pedagogies and practices are shaped by societal and local dispositions about children's needs and nature. Accordingly, researchers point out that early childhood care and development (ECCD) intervention programs have significant short-term and long term benefits. Short term effects include, but are not limited to, cognitive abilities, school achievement, and social and emotional adjustments. Longitudinal studies offer opportunities not only to examine questions answered in short-term studies, but also to observe related life experiences such as malnutrition, poverty, education, and criminal behavior (Brooks-Gunn, Fuligni, & Berlin, 2003). By providing basic health care, adequate nutrition, and nurturing and stimulation in a caring environment, ECCD interventions help ensure children's progress in primary school, continuation through secondary school, and successful entry into the work force (Young, 2002).

In the well-known longitudinal High/Scope Perry Preschool Study in the United States, both short and long term benefits were significantly manifested. The early childhood program targeted African American children born in poverty and coming from families in underprivileged socioeconomic circumstances where the child scored less than 85 on a standard IQ test. The children entered the program at age 3 and continued until they entered the school system at age 6. Short term benefits included achieving higher IQ scores at age 4 to 7, and higher average achievement scores at ages 9 and 14 than did the control group. At ages 18 to 20, the children who have attended the preschool program showed better school performance and employment and fewer behavior problems, such as teenage pregnancies and criminal activities. A significant long term advantage was evident when the participants at age 27 were able to earn \$2,000 or more per month (29% vs. 7%) than their counterpart control members. Cost-benefit analysis of the Perry Preschool Study points out that every dollar invested in the preschool program returned \$7.16 in education, social welfare, and socioeconomic benefits (Zigler & Styfco , 1994).

Other studies in different countries and cultures also indicated that ECCD intervention programs positively influenced children's social-emotional and cognitive- intellectual development which, when measured longitudinally, often continued into adolescence and adulthood ( Campbell, Pungello, Miller-Johnson, Burchinal & Ramey, 2001; Campbell, Ramey, Pungello, Sparling & Miller-Johnson, 2002). For example, data from several longitudinal studies show a clear relationship between the early years and competence, coping skills, and health in later years. A Swedish study (Anderson, 1992) of a sample of children in 1975 from low- and middle- income urban households shows that children who attended good ECCD centers, which involved parents, before age 1, had the best social skills and cognitive abilities at age 13. Another study in the United Kingdom (Osburn & Milbank,

1987) shows that children in good half-day preschool programs had better cognitive development and academic achievement than children who were not in these programs and that children from disadvantaged backgrounds gained and benefited more than children from advantaged backgrounds.

With this in mind, a quick review (Myers, 1992) of young children's access to early childhood care and development programs, especially in the world's most impoverished areas justifies the importance of early childhood programs in terms of ensuring school readiness, equalizing opportunities and promoting social justice. In his review of 14 longitudinal studies from different countries in Africa, the Middle East, Asia, and Latin America, Myers pointed out the significant low primary school repetition rates among the children who participated in ECCD center-based programs in 10 of the studies. One of the cases in which no difference was found followed an automatic promotion system where no child repeated a year. A cross-country study in sub-Saharan Africa shows clear relationships between preschool coverage and repetition and survival rates as well as children's physical development (Jaramillo & Mingat, 2003). The study concludes that 87% of investment in preschool will be repaid in the form of increased efficiency in primary education. The authors estimate that if African countries expand preschool coverage to 40% by 2015, primary school repetition rates will fall to 15%, from 20% in 2000. Other individual and social returns, such as better health conditions, higher income, and greater social interactions, will most likely offset the remaining 13% (UNESCO, 2006a). Keeping these outcomes in mind, Myers (2002) nevertheless still indicated in his review of progress within the Education for All initiative, in the main, enrollment increases can be characterized as "small and marginal [representing] a kind of inertia and a failure to give priority to ECCD in often difficult economic conditions" (p.25).

The adversity is similar in the reports of the other dimensions of early childhood care and development: health, nutrition, birth registration, caregiver support, social and gender equity, and family economics. The driving forces of individual programs and initiatives are offset by the sheer magnitude of child poverty, inequitable social conditions, and violence, depriving the majority of the world's children of the chance to develop adequate physical, emotional, intellectual, and social foundations. Young (2002) puts it this way: "For children who are malnourished and have never had a book read to them, the playing field is certainly not level when they enter primary school at age 6, and they have little chance to succeed" (p. 67). Consequently, governments tend to treat early education as a downward extension of primary school rather than an upward extension of the base built in early childhood. Early interventions can alter the "trajectories of children who are born poor or are deprived of the opportunities for growth and development available to those more fortunate"(World Bank, 2007b, p.115).

### **Early Childhood Care and Education as a Human Right**

Every child has the right to the best possible start in life. The Framework for Action adopted at the Jomtien Conference in 1990 stated: "The preconditions for educational quality, equity and efficiency are set in the early childhood years, making attention to early childhood care and development essential to the achievement of basic educational goals" (Article I.3). At this point, educators and policy makers recommended increased emphases on care and stimulation during early childhood, improvements in the quality of education provided, and universal access to completion of primary education by the end of the millennium. Children are to have a "first call" on society's resource, in good and bad times, and their rights are to be recognized and protected by the UN Convention on the Rights of

the Child (UNCRC, 1989). In its General Comment on early childhood, the Committee on the Rights of the Child interprets the right to education as beginning at birth and encourages governments to take measures and provide programs to enhance parental capacities to promote their children's development. This commitment was re-affirmed at Dakar in 2000 with an emphasis on ensuring that early childhood programs reach disadvantaged and vulnerable children. More recently, the "International Conference on the Right to Basic Education as a Fundamental Human Right and the Legal Framework for its Financing" (Jakarta, Indonesia, 2–4 December 2005) adopted the Jakarta Declaration. This emphasizes that the right to education is an internationally recognized right in its interrelationship with the right to development, and that the legal and constitutional protection of this right is indispensable to its full realization.

By ratifying the UNCRC, many governments have agreed to incorporate its provisions into their national laws, to place children at the center of policy-making, and to make regular reports to a special commission<sup>8</sup> on their progress, keeping in mind that the UNCRC is constructed on four general principles: (a) Best interest of the child (Article 3) – all actions concerning the child shall be in his or her best interest; (b) Survival and development (Article 6) – all children have the right to survive and develop to fulfill their human potential; (c) Non-discrimination (Article 2) – all rights apply to all children without exception. It is the State's obligation to protect children from any form of discrimination (whether based on race, gender, religion, culture, political affiliation, etc.) and to take positive action to promote their rights; and (d) Participation (various articles) – children have the right to participate in their society by expressing their opinions and practicing their freedom of thought, conscious

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<sup>8</sup> Committee on the Rights of the Child within the Office of the United Nations High Commissioner for Human Rights, Geneva, Switzerland.

and religion. The Convention elaborates an understanding of the right to education in terms of universality, participation, respect, and inclusion (Arnold, 2004).

Conversely, implementing child's rights within early childhood practices and policies is still only at the primary stages. Many country reports had been devoting so little attention to implications of UNCRC for the youngest child (Woodhead, 2006). According to UNICEF's 2007a "A Human Rights-Based Approach to Education for All" report, needs-based development approaches to education have, to date, failed to achieve the Education for All goals (p.9). For ECCE, even though enrollment in pre-primary education has tripled since 1970, coverage remains noticeably very low in most of the developing countries. With a few exceptions, children from rural and poorer families and those socially excluded, such as those lacking birth certificates, have significantly less access to ECCE than those from urban and more affluent families. Additionally, ECCE enrollments fell sharply in transition countries after the breakup of the Soviet Union but are now recovering, although not to previous levels. Among developing country regions, coverage is greatest in Latin America and the Caribbean but remains low in sub-Saharan Africa and the Arab States (UNESCO, 2007b).

The perspective on young children within UNCRC departs radically from a conventional, instrumental paradigm shifting to a more rights-based approach to well-being and education. The bottom line to developing a human rights-based conceptual framework to education, at all levels starting from the very early years, we need a framework that addresses: a) the right to quality education; b) the right to access to education, and; (c) the right to respect and equity in the learning environment. These three dimensions are interdependent and interlinked, and a rights-based education necessitates the realization and implementation of all three (UNICEF, 2007a).

### **The Quality Imperative**

According to Arnold (2004), quality early childhood care and development programs “aim to ensure that children grow up healthy, well-nourished, and protected from harm, with a sense of self-worth and identity, enthusiasm, and opportunities for learning” (p.6). With a holistic approach in mind when providing ECCE, attention is to be given to the “whole child” where children are given opportunities “to explore, discover, communicate effectively, get on with others, and play an active role in their environment” (p.6).

Consequently, quality in early childcare and education is a concept typically used to describe features of program environments and children’s experiences in these settings that are considered to be beneficial to the children’s well-being, based on research and practice (Young, 2002). Many researchers have described empirical associations between features of childcare environment (structure and dynamics) and multiple aspects of children’s growth and development (Dahlberg et al., 1999; Katz, 2003). These are reflected in positive child outcomes such as improved language and vocabulary, enhanced social and communication skills, reduced behavior problems, and increased cooperation. In a study of children attending state preschool programs in North Carolina, Bryant, Peisner-Feinberg, and Clifford (1993) found that children’s communication abilities at the end of preschool are positively associated with appropriate care giving and that vocabulary development in kindergarten is positively associated with the quality of preschool. Burts and colleagues (1992) show that children’s attendance in developmentally appropriate kindergartens is associated with fewer stress behaviors. Also, Bryant and colleagues (1994) show that children who attend higher quality Head Start classes have better cognitive, although not social, outcomes at the end of the Head Start year.

In a similar vein, a 15 year IEA<sup>9</sup> study in 10 high- and middle-income countries<sup>10</sup> found similar results (Weikart, Olmsted & Montie, 2003). The purpose of this longitudinal study was to determine how process and structural characteristics of community pre-primary settings affected language and cognitive development. Based on a study of more than 5,000 children aged 4 and 7, in 1,800 different settings and backgrounds, it was found that language performance at age 7 was better the more self-sufficiency children had been given in preschool and the higher the preschool teacher's educational level. Another study found that cognitive performance improves the less time children spend in whole-group activities and the more and better equipment and materials to which they have access (High/Scope Educational Research Foundation, 2004).

While most of the research in pre-primary programs compares children who followed a certain program with those who did not, another kind of study has emerged over the last two decades that focuses explicitly on quality, comparing outcomes for children in ECCE centers that vary in the level and extent of quality and design attributed to them<sup>11</sup>. A Turkish study, for example, compared children who received no form of care, those who were looked after by child minders, and those who attended some type of preschool center (Kagitçbasi, 1996). Even though quality was not defined clearly, the results appeared superior for the third group. A different aspect of this study was the inclusion of a parental education and support component. This was found to generate important results regarding children's cognitive development, growth, and school performance as well as child-rearing practices in the family, especially for new mothers.

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<sup>9</sup> International Association for the Evaluation of Educational Achievement

<sup>10</sup> Finland, Greece, Hong Kong (China), Indonesia, Ireland, Italy, Poland, Spain, Thailand and the United States.

<sup>11</sup> They may involve direct attention to children or indirect attention via work with their parents, or be child-centered community programs, or a combination of these. They may involve health, nutrition or education components, or a combination. They may be publicly or privately run; a range of curricula can be found (UNESCO, 2005).



Conversely, assessing quality in ECCE provision is difficult, both conceptually and empirically, and has been insufficiently addressed at the global level. In many countries, especially with the most vulnerable and disadvantaged children, there is very limited input and lack of information about how early childhood intervention programs are utilized to achieve quality outcomes (UNESCO, 2006b). In more developed countries, the increasing norm to measure quality is the use of standards, applying different assessment tools with multiple indicators. An examination of instruments (see Table 1) used to describe and/or to evaluate the quality of ECCE programs suggests that there are several general and reappearing dimensions of quality but that the specific ways of naming and operating these dimensions to create indicators of quality differ substantially from setting to another. For example, measurements of quality found regularly, although sometimes with variations in terms, include: (a) the physical environment (space, infrastructure, materials); (b) the knowledge and experience of human resources; (c) the nature and organization of the educational process (planning and evaluation, curriculum, pedagogical practices); (d) organization and administration; (e) the work environment (relationships among staff; policies); (f) relationships with family and community; and (g) attention to health, hygiene and safety (Myers, 2006; Woodhead, 1996). In terms of the “composite view” that Myers (2006) uses to describe ECCE quality, it is common to hear words or phrases describing educational quality such as: child-centered, active learning, broad and varied goals and activities, holistic and integral, responsive, interactive, relevant, culturally pertinent, participatory, structured but flexible, human, ethical, and collegial.

While it may be true, learning achievement alone, especially in developed countries, is an inadequate basis on which program quality is judged, where the primary focus is on ensuring a wider range of child development outcomes. The case is looked upon differently

in least-developed countries where assessing ECCE provision is determined by how well programs reach the most vulnerable and disadvantaged children. (UNESCO, 2006b). The bottom line is even where pre-primary programs are operated with modest resources, they often show a positive impact on children, and hence can make a difference.

Table 1

*Instruments and Tools to Measure Quality ECCE*

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A. International

1. International Step by Step Association (ISSA): 27 countries, mostly E. Europe (ISSA 2002)
2. Association for Childhood Education International Self-Assessment Tool (ACEI) (2002)
3. IEA (Hayes, Montie and Claxton, n.d) 14 countries
4. Save the Children(UK), East Africa, 8 countries (2004)

B. High-income countries

5. United States: NAEYC Accreditation Performance Criteria; (NAEYC 2005)
6. United States: Early Childhood Environment Rating Scale (ECERS-R); (Harms, Clifford and Cryer 1999)
7. United States: High/Scope PIP ( 2004 )
8. United States: Qualistar Early Learning (NCCIC 2005)
9. Australia: (National Childcare Accreditation Council 2004)

C. Low- and middle-income countries

10. Chile: Guía de Autoevaluación de la Escuela; (Ministerio de Educación, Chile, 2002)
  11. Caribbean countries (The Bahamas, Dominica, Grenada, Jamaica, Monserrat, St. Lucia, St. Vincent and the Grenadines) (Williams, 2000 to the present)
  12. Costa Rica: V.A.I. Instrumento de Autoevaluación; (UNIPRIN/UNICEF 1999)
  13. Colombia: Hogares (ICBF 2005)
  14. Ecuador: Estándares de Calidad; (Nuestros Niños, et.al., 2001)
  15. India: Tamil Nadu Early Childhood Environment Rating Scale-TECERS (Isely, 2000);
  16. Kenya: Madrasa Evaluation Instrument
  17. México: ECCP 4.0 (Proyecto Intersectorial, 2005)
  18. Pakistan: CLEF (Teachers Resource Center, 1998)
  19. Singapore: Pursuing Excellence at Kindergartens (PEAK); (Ministry of Education, Singapore, n.d.)
  20. Vietnam (Center for Early Education Research.)
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Note: Source: Myers, 2006, p. 18

### **Critical Perspectives: Equity and Access to ECCE**

From a social perspective, high-quality early childhood programs can compensate for disadvantage and hardship. Besides their potential to enrich the lives of young children, they can increase equity by promoting multilingual education, gender equality, and opportunities for the disabled and children in emergencies or unstable circumstances. Providing a “fair start” may help modify distressing socioeconomic and gender-related inequities. This argument will appeal particularly to governments and nongovernmental organizations (NGO) concerned with creating a more equitable society and to groups that have not had equal access to services. Nevertheless, in too many countries, including the Arab states, direct and indirect household costs, including the need to have children work to supplement household income, and the payment of fees at ECCE and primary level in some areas, remain a major obstacle to poor children’s access to early childhood education (UNESCO, 2006b).

### **Factors Related to the Relatively Slow Growth of ECCE**

There is irrefutable evidence that the gap between rich and poor countries is growing, and that the world’s poor are becoming poorer. Children are affected by poverty disproportionately, and are particularly susceptible to cuts in infrastructural services such as health and education (Penn, 2002). Despite the potential that globalization offers for the dispersion of knowledge and wealth, it appears in fact to be increasing the gap between rich and poor. Economic growth has failed to reduce poverty in many nations (Minujin, Vandemoortele & Delamonica, 2002). In some countries, even where ECCE programs may exist, economic, social and cultural factors – including gender, disability, AIDS, household poverty, ethnicity, minority status, orphanhood and child labor, among others – often

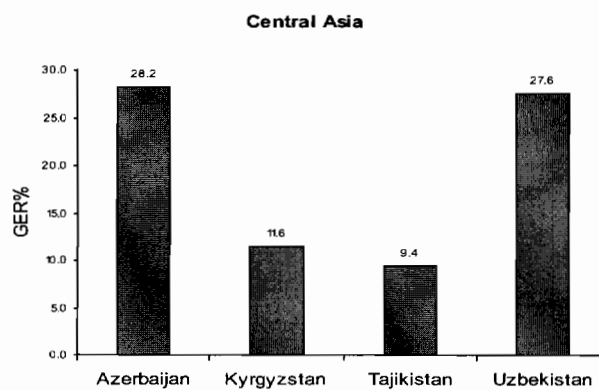
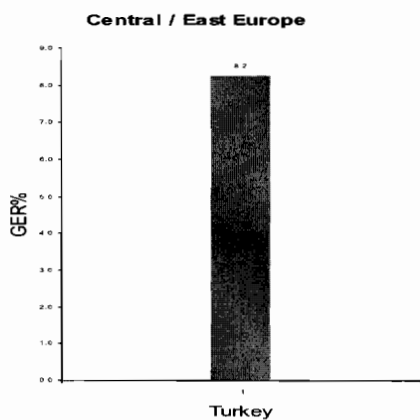
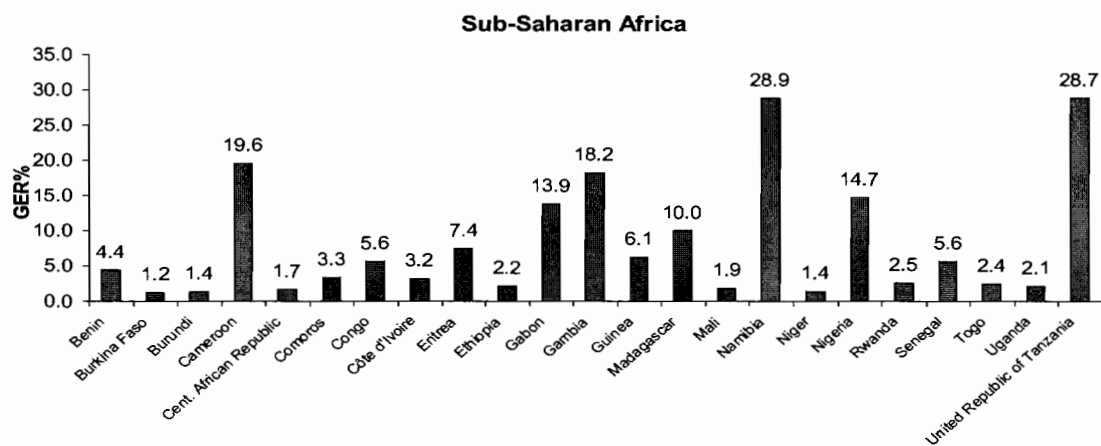
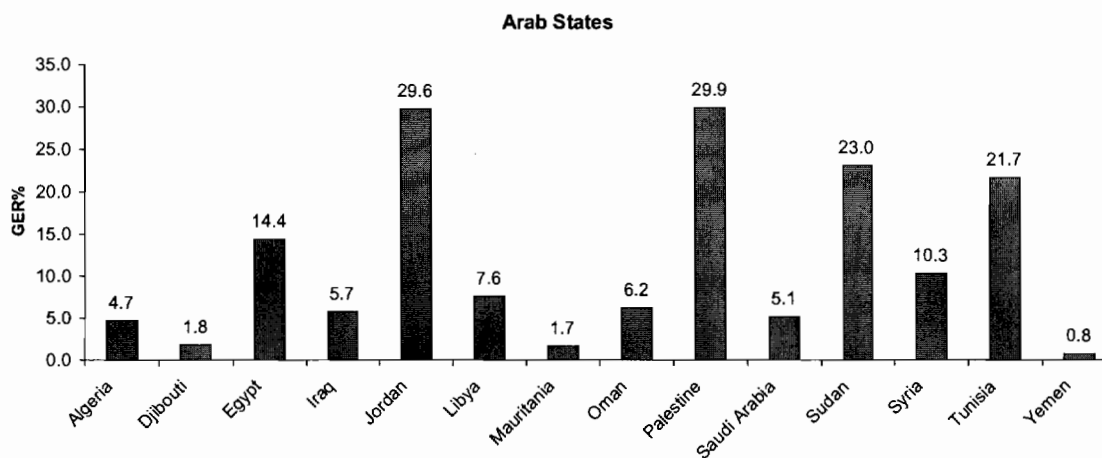
interlink to deny access to early education for many children, especially the disadvantaged. With this in mind, governments have obligations to develop legislation, policies and support services to remove barriers in the family and community that impede children's access to such services. Following is an overview of some of the major factors that contribute to the slow provision of early childhood education in many countries in the world.

### **Economic Conditions**

A key social consideration one has to keep in mind is that children who have a poor start are at an increased risk of missing access to early childhood education, especially when these services are provided primarily by the private sector. Not only would they be exposed to inequalities in health, competence, and coping skills, but also be at risk of antisocial behavior. This is the case in many developing countries where limited resources for ECCE initiatives result in less services for children, especially the disadvantaged. According to the 2007 EFA global monitoring report (UNESCO, 2006b), most of the 52 countries with pre-primary GER below 30% in 2004 are in sub-Saharan Africa and the Arab States (see Figure 2), where the spending on pre-primary education is very low as a percentage of that for primary.

#### *Poverty*

As mentioned earlier, the contemporary world is characterized by vast disparities between rich and poor countries, and these differences inevitably have an impact on the lives of children within these countries. According to UNICEF, 10% of the people in the world possess 90% of the world's wealth. "Poverty has been described as the new face of apartheid: millions of people living in wretched conditions side by side with those who enjoy unprecedented prosperity" (UNICEF, 2000a).



Source: UNESCO 2006

Figure 2. Pre-primary GERs in Countries with GERs below 30%, 2004

Accordingly, more and more children are being born in poverty. In an attempt to reduce this poverty trend, governments are getting outside loans to put into practice structural adjustment programs. However, these actions have resulted in tremendous spending constraints, and thus had dire consequences for the poor, especially the poor children, because of the cuts in social spending (Arnold, 2004). Instead of lifting these countries out of poverty, loans dragged them further into debt. In the poorest nations, money that is needed for health and education is spent on debt repayment. For example, in Tanzania nearly 50% of the country's budget goes to external debt, and only 10% is allocated to social services. At the same time, international development aid continues to decline in real terms (UNICEF, 2000a).

Within this sad reality, how well are children's priorities taken into consideration? For ECCE programs to be successful requires the commitment of governments to allocate sufficient resources to fund basic social needs, and it requires donor agencies to do the same (Arnold, 2004).

### *Child Well-Being*

According to Ben-Arieh (2006), a redefined concept of children's well-being is guided by two underlying assumptions: "that children are entitled to dignity and basic human rights, and that their childhood is a stage also deserving our attention and respect" (p.2). While still important, traditional measures such as infant and mortality rates, school enrollment, and immunization records, seem outdated and less relevant for measuring the well-being and quality of children's contemporary lives, mostly in developed countries. The case is different

in developing countries where the indicators mentioned earlier contribute to their definition of child well-being.

The under 5 mortality rate – the number of children per 1000(%) live births who die before reaching age 5 – is generally considered the most robust indicator of childhood survival and well-being (UNESCO, 2006b). Jukes (2006) argues that whether formally classified as ECCE or not, measures designed to reduce mortality are certainly a first step towards establishing comprehensive early childhood programs.

### *Nutrition*

By providing psychosocial stimulation, ECCE programs can ultimately enhance the efficacy of health care and nutrition. Moreover, they can ensure that children, especially the disadvantaged, receive proper health care supervision. For instance, children participating in the Colombia Community Child Care and Nutrition Project and the Bolivia Integrated Child Development projects are required to complete their immunizations within six months of entering (Jukes & Forthcoming, 2006).

Accordingly, a study in Vietnam (Watanabe, Flores, Fujiwara, & Lien, 2005) showed a significant interaction between educational and nutritional interventions in early childhood. In this study, children aged 0-3 years in five different communities were given nutritional supplements. Children from two of these communities were enrolled in an ECD programs at ages 4-5 years. When compared at ages 6-8 years, children who had received both educational and nutritional interventions scored 0.25 SD higher on the Raven's Progressive Matrices Test 9 (a test of non-verbal reasoning) than those who only received the nutritional intervention.

It should be noted that in many cases, health and nutrition problems can affect both children's access to education and developmental outcomes. Undernutrition negatively impacts school participation and achievement. Studies in Pakistan (Alderman, Behrman, Lavy, & Menon, 2001), the United Republic of Tanzania (Jukes & Forthcoming, 2006), and the Philippines (Mendez & Adair, 1999) have shown that stunted children (those who are short for their age) are less likely to enroll in school, and even when they enroll, are more likely to drop out. This correlation can be explained by the poverty factor, where poor families with undernourished children tend not to send their children to school (UNESCO, 2006b).

### **Social Equity and Justice**

According to Kabiru and Hyde (2003), "The opportunity for additional nutritional, health and educational inputs at an early age can address the developmental delays that are more likely to affect poorer children....ECCE programs can promote equity, for not only can the children benefit from when they are young, but the benefits continue their school career" (p.5)

#### *Gender Equity*

In many studies, ECCE intervention programs proved to promote gender equity where compensation for gender biases in nutrition, healthcare, or stimulation that may occur at home were evident (Jukes, 2006; Myers, 2000; Zigler & Styfco, 1994). For instance, parents' attitudes and dispositions changed while they saw how their girls participating in ECCE learned and grew. They realized that their daughters are now "active learners" who develop "a wider variety of social and intellectual capacities" (Arnold, 2004, p. 11)



According to Myers (2000), girls in both India and Guatemala who participate in ECCE programs are more likely to begin school at the appropriate age and complete primary school than girls who do not at school. Among Nepalese children who participated in an ECCE program, an equal number of girls and boys began first grade, compared with 39% of girls and 61% of boys who did not participate (Arnold, 2004). Consequently, pre-primary gender disparities at the expense of girls are found mostly in countries with very low gross enrollments (UNESCO, 2006b). Reducing such disparities would contribute positively to closing the gender gap in general in education. Parents particularly whose daughters have attended early childhood programs are more likely inclined to enroll them in primary education. Above all, the impact of early childhood programs on gender inequality depends greatly on how children are socialized in these programs, and on pedagogy and curriculum (Nsamenang, 2006).

### **Early Childhood Education Policy**

From a rights perspective, framing policy for ECCE services is not merely about charity towards the young, needy, and dependent. Additionally, early childhood should not be seen only as “an investment opportunity, about exploiting human capital” (Woodhead, 2005, p.14). The shift in the young’s child status within policy and practice is signaled by the move away from policies based mainly about adult constructions and dispositions of children’s basic needs. As Liwski (2006) explained:

A needs-based focus produces a vision aimed at solving specific problems... it concentrates on specifics and converts the citizen into a passive subject who must be considered from the standpoint of the problem. In contrast, a rights based approach fosters a vision of citizenship whereby the citizen is a holder of rights (p.24).

Nevertheless, starting points for policy development are very different where early childhood is dominated by extreme poverty, inequality or discrimination, or by ethnic struggle, civil or cross-national conflict, or by malnutrition, preventable diseases or HIV/AIDS, by family or community breakdown and forced migration, or by weak or corrupt infrastructures of care and education, health and social support (Woodhead, 2006). Here, governments' role in providing ECCE for children age 3 or older becomes a huge responsibility in terms of ensuring equity and access of such services to children, especially the disadvantaged.

Consequently, ECCE is looked upon as a multi-sectoral discipline that requires the involvement of many sectors in the government, notably those concerned with education, health, and social assistance. There are three ways in which countries coordinate these sectors. First, a single sector or ministry can be made responsible for the entire early childhood age group. This integrated model is a growing trend in developed countries where resources are very limited and need to be dispersed wisely. Among developed and transition countries, the trend is towards more private-sector involvement. According to UNICEF (2006), in much of sub-Saharan Africa, the Arab States, the Caribbean and East Asia, private pre-primary institutions<sup>12</sup> are considerably more prominent; hence, access to ECCE services is limited to those children whose parents afford to pay for their education and care.

#### *Legislation for Compulsory Education*

Many countries are passing legislations for compulsory pre-primary school attendance for different reasons. Even though rationales vary – for instance, “to expand pre-school education; to underscore government commitment to early childhood provision; and to

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<sup>12</sup> Private pre-primary institutions are defined as those not operated by a public authority but controlled and managed, whether for profit or not, by a private body such as non-governmental organization, religious body, special interest group, foundation or business enterprise. (Source: UNESCO 2006)

improve the readiness and transition of children to primary education”- the structures and layouts of the programs are in general similar (UNESCO, 2006B). According to Benavot, Resnik & Corrales (2005), governmental laws for compulsory pre-primary attendance tend to reflect policy initiatives and regulations instead of projected educational outcomes, where pools of resources dictate the equity in access to such services.

### *Early Childhood Education Finance*

Without relevant data, arriving at a reasonable understanding of the sources and amounts of ECCE funding is extremely difficult, and the developing countries including Arab States are no exception. The general assumption is that non-public contributions from families, individuals, communities, NGOs and enterprises would exceed government support. This may be true for non-formal and informal services for children under three (Belfield, 2006). But the picture for pre-primary education expenditure is unclear, judging from the data available from 2007 EFA statistical annex.

### **Pre-Primary Teacher Qualification and Staffing**

According to Ackerman (2006), quality pre-primary education does not simply arise by establishing pre-primary facilities and hiring staff. Rather it is the result of specific, intentional practices that support the recruitment and retention of well-trained teachers. Consequently, the educational qualifications required to become or remain a pre-primary teacher has risen in many OECD<sup>13</sup> countries. In their research, Bertram and Pascal (2002) indicated that for those working with 3-6 year olds, some training was required in the majority of countries (i.e., 19). Meanwhile for pre-primary teachers, having completed at minimum a post-secondary program of 3 years was

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<sup>13</sup> Organization for Economic Co-operation and Development (OECD)

required. In contrast, many middle and low-income countries continue to recruit high proportions of untrained and poorly qualified teachers (UNESCO, 2005).

In many studies, teachers' qualifications were used as indicators to measure ECCE quality and child outcomes. The National Child Care Staffing Study (Whitebook, Howes, & Phillips, 1989), the largest study to focus on staff characteristics, yields three pertinent conclusions: (a) teachers tend to provide higher-quality care and services to children, as measured through "appropriate and sensitive caregiving," when they have had more formal education, more early childhood training at the college level, and earn higher wages and benefits; (b) children are more competent in social and language development when they attend centers with lower staff turnover; and (c) higher quality centers have higher staff wages, a better adult work environment, lower teacher turnover, and a more highly educated and trained staff (Young, 2002).

Qualifications requirement for pre-primary teachers vary greatly by country, especially between developed and developing countries. Moreover, according to 2007 GMR (UNESCO, 2006b), in general, pre-primary teachers have little pre-service training and almost always less than their primary school counterpart.

From another perspective, the age and gender composition of the ECCE workforce is influenced by the traditional caring roles of mothers and women. In many cultures and societies, child caring is tied to maternal intuitive activities that required few formally acquired skills and little training. As indicated in 2008 statistics annex, almost all pre-primary school teachers are women: the global median of women's share of this profession is 99% in contrast to 74% among primary teachers (see Table 2).

Table 2

*Percentage of Female Pre-primary and Primary Teachers by Region, 2005*

Region	Pre-primary Female Teachers (%) 1999	Pre-primary Female Teachers (%) 2005	Primary Female Teachers (%) 1999	Primary Female Teachers (%) 2005
Arab States	77	86	52	58
Central & Eastern Europe	99	99	82	81
Central Asia	97	97	84	84
East Asia & the Pacific	94	96	55	59
Latin American & the Caribbean	96	96	76	77
N. America & Western Europe	92	92	81	84
South & West	69	93	35	45

Note: Source UNESCO 2007

### **ECCE in the Arab States: Challenges and Opportunities**

*Strong Foundations: Early Childhood Care and Education*, the 2007 EFA Global Monitoring Report, notes that participation at the pre-primary level has tripled over the past three decades but remains extremely low in sub-Saharan Africa, the Arab States and South and West Asia: the three regions farthest from achieving the six Education for All goals set in 2000 (UNESCO, 2006b). The provision of ECCE in the Arab States is still in its primary stages,

where programs and social services for young children remain few and far between, even though some Arab countries are gradually establishing early childhood policies. Following is an overview of progress towards EFA goal 1 in the Arab States, as depicted in the 2008 EFA GMR regional overview. A holistic approach is employed to measure care and education along with health and nutrition.

### *Provision Under 3*

Even though governments should be more active in providing care and social services to children under 3, in the Arab region, only 7<sup>14</sup> countries out of the 13 with data reported that they had early childhood programs that served children under three.

### *Pre-Primary Teaching Staff*

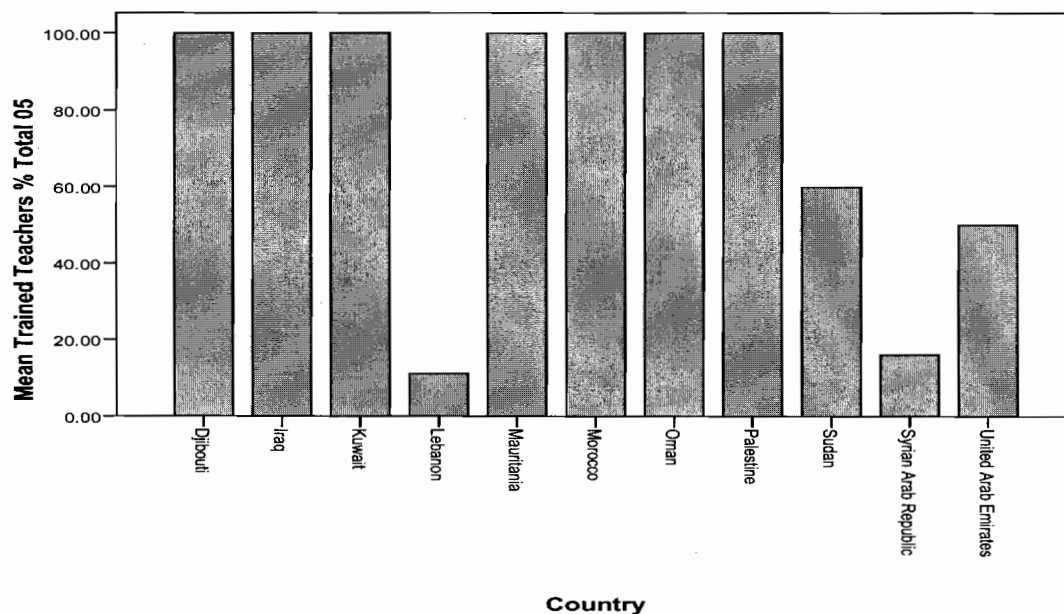
Teachers who have a high level of education are more likely to implement appropriate practices. Research findings showed that teachers with college degrees are more likely than those with only a high school degree to encourage children, make suggestions to them and promote children's verbal skills (Kontos & Wilcox-Herzog, 2001). Despite the fact that research has shown that teacher's qualifications make a difference in the type of delivery of curriculum and activities in ECCE programs, yet there is a lack of qualified personnel in the Arab countries. The low pay, social status of teachers and the way society looks at their roles as 'child minders' and not 'child educators' poses great problems and has tremendous impact on the high turnover and retention of teachers of young children (Faour et al., 2006)

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<sup>14</sup> Countries that reported to provide programs for children under 3 were Bahrain, Egypt, Jordan, Lebanon, Palestine, Sudan and Syria. Countries without such programs reported were Kuwait, Morocco, Oman, Tunisia, Yemen, and United Arab Emirates; Sources: UNESCO 2007.

Even though most pre-primary teachers had received training in most of the countries with data in 2005, only 11% had in Lebanon and 16% in Syria (see Figure 3).

**Figure 3. Percentage of Trained Pre-primary Teachers in the Arab States, 2005**



Source: UNESCO 2007

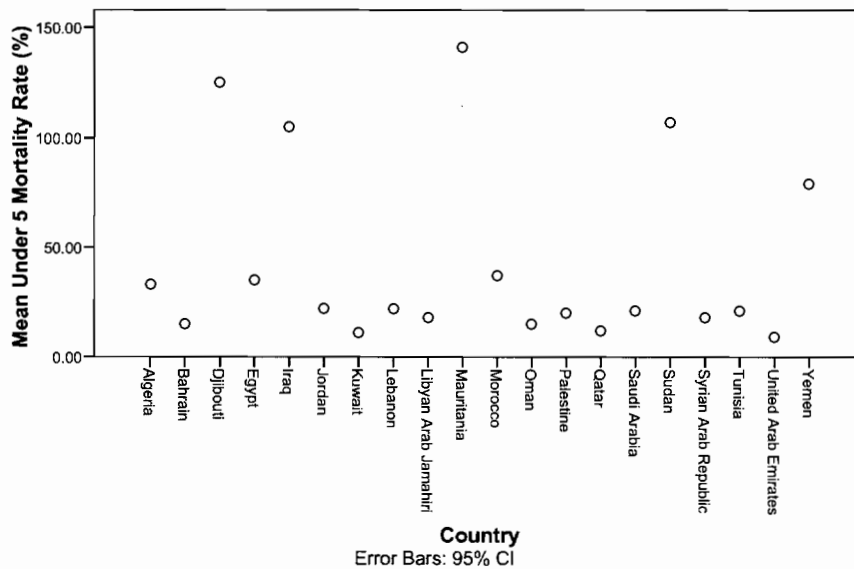
### *ECCE Governance*

Millions of disadvantaged children in the Arab States continue to have the least access to ECCE programs and services. This phenomenon is evident in more than half the countries reporting data, where 75% of the service is provided solely by the private sector. Countries in this category include Bahrain, Jordan, Morocco, Oman and Palestine.

### *Child Mortality Rate*

In the past decade, child mortality rates in the Arab States have improved markedly. As Figure 4 shows, uneven trends in changes appear among the countries. For instance, between 1995 and 2005, the under - 5 mortality rate fell by more than 25% (to 55 per 1,000 births) with Algeria, Egypt, Morocco, and Syria. On the other hand, the prevalence of under -5 mortality is evidently high in Djibouti, Iraq, Mauritania, and Sudan, where the rates exceeded 100% in 2005.

**Figure 4. Under - 5- Mortality Rates (%), 2000-2005**





*Child Well-Being*

Even though the majority of children in the Arab States are given immunizations against preventable diseases, their overall well-being varies significantly between countries within the region. For instance, malnutrition and undernutrition affected 32% to 46% of children under age 5 in Mauritania, Sudan and Yemen between 1996 and 2005, noticeably above the world average. In these countries also, highest proportions of children suffering from moderate to severe stunting were reported. Table 3 displays selected indicators of children's health and nutrition by country, 1996 – 2004.

Table 3

*Selected Indicators of Children's Health and Nutrition by Country, 1996-2005*

Arab State	Immunization of 1-year olds (%)			% Under - - who are	
	Tuberculosis 2004	DPT3 2004	HepB 2004	Moderately or severely underweight	Moderate or severe stunting
Algeria	98	86	81	8	19
Bahrain	70	98	98	5	10
Djibouti	78	64	....	13	26
Egypt	98	97	97	4	16
Iraq	93	81	70	6	22
Jordan	58	95	95	2	9
Kuwait	....	98	94	11	24
Lebanon	....	92	88	3	12
Libya	99	97	99	3	15
Mauritania	86	70	....	13	35
Morocco	95	97	95	4	24
Oman	99	99	99	13	23
Palestine	98	96	96	3	9
Qatar	99	96	97	2	8
Saudi Arabia	95	96	96	11	20
Sudan	51	55	....	....	....
Syria	99	99	99	4	18
Tunisia	97	97	96	2	12
UAE	98	94	92	15	17
Yemen	63	78	49	12	53

Source: UNESCO 20

## Summary

ECCE programs of high quality have the potential to improve the health and nutrition of young children, to prepare them for elementary education, to guarantee that their rights are respected and to reduce inequality. Clearly, it is time to devote more attention to ECCE. Whatever the policy, there is consistent evidence that the benefits of early childhood programs are high for vulnerable and disadvantaged children, facilitating the reduction of social inequality. Nevertheless, in order to establish successful and sustainable ECCE programs, policymakers have to be aware that these interventions must be an integral part of countries' overall strategy for developing human capital. As James Heckman (2006) observes:

It is a rare public policy initiative that promotes fairness and social justice and at the same time promotes productivity in the economy and in society at large. Investing in disadvantaged young children is such a policy. (p.2)

Consequently, comprehensive ECCE programs that support children's right to care, protection and education can make a major difference in reducing hunger, child mortality and other health goals. As such, ECCE programs are a powerful contributor to reducing poverty, the overarching objective of the Millennium Development Goals.

In the Arab States region, even though progress is apparent in some countries, challenges and limited resources reduce the chances of access to ECCE programs in the remaining majority.

## Chapter III

### METHODOLOGY AND PROCEDURE

This study was designed to investigate the relationships among variables that are assumed to be related to the steady but slow provision of ECCE in the Arab States. This chapter includes the following six major topics: (a) an overview of UNESCO Institute for Statistics (UIS) and the International Standard Classification of Education (ISCED), (b) a description of the indicators used in the 2007 and 2008 Education for All (EFA) Global Monitoring Report databases, (c) the research design of the study, (d) the criteria used for the selection of subjects, (e) data collection, and (f) data analysis.

#### **An Overview of UNESCO Institute for Statistics (UIS) and the International Standard Classification of Education (ISCED)**

The UNESCO Institute for Statistics (UIS), founded in 1999 and based in Montreal, Canada is a major partner and source of data used in preparing the Education for All (EFA) Global Monitoring Report. A core set of quality education data is obtained through annual education surveys, consultations with member states, and the international community. In addition to its data-gathering role, the Institute works to develop new statistical and monitoring tools for assessing progress towards Education for All (UNESCO, 2006c).

Education data reported to UIS are in conformity with the 1997 revision of the International Standard Classification of Education (ISCED). ISCED was designed by UNESCO in the early 1970's to serve "as an instrument suitable for assembling, compiling and presenting statistics of education both within individual countries and internationally". It was approved by the International Conference on Education (Geneva, 1975), and was

afterwards endorsed by UNESCO's General Conference. The present classification, now known as ISED 1997, was approved by the UNESCO General Conference at its 29th session in November 1997 (UNESCO, 2006c). The main purposes of ISCED are to uniform data and introduce more international comparability among national education systems; however, some countries may have their own definitions of education levels that do not correspond to ISCED. Therefore, some differences between nationally and internationally reported enrollment ratios may be due to the use of nationally defined education levels rather than the ISCED standard (UNESCO, 2007a).

ISCED 1997 covers primarily two cross-classification variables: levels and fields of education. Table 4 outlines the ISCED levels and their criteria.

Table 4

*ISCED Defined Levels of Education*

Level	Description
Level 0	Pre-Primary Education
Level 1	Primary Education or First Stage of Basic Education
Level 2	Lower Secondary or Second Stage of Basic Education
Level 3	(Upper) Secondary Education
Level 4	Post-Secondary Non-Tertiary Education
Level 5	First Stage of Tertiary Education (Not leading directly to an advanced research qualification)
Level 6	Second Stage of Tertiary Education (Leading to an advanced research qualification)

Source: UNESCO ISCED 1997

*Indicators Used in the 2007 and 2008 EFA Global Monitoring Report Databases*

Issues of access and equity of pre-primary education in the Arab States continue to be fundamental in measuring the multiple aspects of quality ECCE provision. With this in mind, international discussions utilize multiple social indicators to examine the quality of ECCE programs. Hence, the 2007 and 2008 statistical annex from UNESCO's EFA Global Monitoring Reports use a set of core health and education indicators that can be categorized into six areas: (a) enrollment; (b) expenditures; (c) teachers; (d) efficiency and quality; (e) equity and access; and (f) child well-being. To track the progress of the Arab States towards meeting EFA goal 1, this study draws its descriptive discussion and analysis on the following indicators:

A. Enrollment Indicators<sup>15</sup>:

1. Gross enrollment ratio (GER) in pre-primary education: the total number of pupils enrolled in ECCE programs /services, irrespective of age expressed as a percentage of the total 3 to 5 years of age;
2. Percentage of new entrants in grade 1 who have attended some form of ECCE;
3. Gross intake rate (GIR) in primary education: total number of new entrants in primary grade 1, irrespective of age, as a percentage of the population of official entry age;
4. Net intake rate (NIR) in primary education: total number of new entrants in primary grade 1 who are of the official school entrance age as a percentage of the total population of official entry age;

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<sup>15</sup> All data source is from 2008 statistical annex, except for public expenditures in pre-primary education, data source is from 2007 statistical annex

5. Gross enrollment ratio (GER) in primary education: the total number of pupils enrolled in primary education, regardless of age, as a percentage of the total population of primary school age;
6. Net enrollment ratio (NER) in primary education: the number of pupils of the official primary school age enrolled in primary education, as a percentage of the total population of primary school age;

B. Expenditures Indicators:

7. Current public expenditures in pre-primary education: (a) as a percentage of gross national product (GNP); and (b) per pupil, as a percentage of GNP per capita;

C. Teacher/ Educator Indicators:

8. Teaching staff in pre-primary education: In pre-primary schools/centers, the number of persons employed full time or part time in an official capacity to guide and direct the learning experience of pupils and students irrespective of their qualifications or the delivery mechanism;
9. Trained teachers (%) in pre-primary education: percentage of teachers who have received the minimum organized teacher training normally required for teaching at the relevant level in a given country:

D. Efficiency/Quality Indicators:

10. Pupil teacher ratio (PTR) in pre-primary education: number of pupils for one teacher in an ECCE program:
11. Dropout rate in grade 1: percentage of students who drop out by grade 1.
12. Survival rate to grade 5: percentage of a pupil cohort actually reaching grade 5.

#### E. Equity and Access:

13. Gender parity index (GPI) in pre-primary education: GPI is calculated based on the ratio of females to males' values in GER in pre-primary enrollment. A GPI of 1 represents parity between the two groups; an index greater than 1 indicates an advantage for female; while an index below one signifies a discrepancy in favor of males;
14. Gender parity index (GPI) in primary education;

#### F. Child Survival and Well-Being:

15. GNP per capita and poverty level;
16. Percentage of mortality rate for children under 5;
17. Percentage of children under age 5 suffering from moderate and severe Stunting;
18. Provision for children under three: (a) official programs targeting children; and (b) youngest age group targeted in ECCE programs;

#### G. Overall progress of EFA goal 1:

19. Weighted average of GER in pre-primary education in the Arab States; and
20. Weighted average of GER in pre-primary education in developing countries.

### **Design**

The study employed a descriptive approach. Based on the EFA indicators by UIS from the 2007 and 2008 statistical annex, the investigator's primary focal groups were all children, ages 3 to 6 years, and teachers of pre-primary education from the 20 Arab States. A stratified analysis was conducted using 1999 and 2005 UIS data with regard to the main set of

education and social indicators projected to monitor the progress if any, of the Arab countries towards equitable access of quality ECCE programs. In addition, several dimensions for classifying ECCE frameworks were comparatively evaluated to examine constructs such as: (a) administrative auspices responsible for ECCE (governance, decentralization, role of private sector, etc.); (b) compulsory age for pre-primary education; and (c) the role of the Arab States in ECCE policy development and implementation.

### **Selection of Subjects**

The selected subjects in this study were the 20 Arab countries (n=20) in which household, school and international surveys were conducted. The data collected from these subjects was reported to the UIS using standard questionnaires issued by the institute.

### **Data Collection**

This research draws heavily on administrative data provided annually by national governments to the UNESCO Institute for Statistics (UIS). The most recent data on pupils, students, teachers and expenditures presented in the 2007 and 2008 statistical tables refer to the school year ending in 2005 (and 2004 in some cases), and are based on survey results reported to UIS before the end of May 2006. These statistics refer to all formal schools, both public and private, by level of education. They are supplemented by demographic and economic statistics collected or produced by other international organizations, including the United Nations Development Program (UNDP), the United Nations Population Division (UNPD) and the World Bank (UNESCO, 2007a). They comprise a quality-assured data set, compiled in such a way that statistics are comparable for the majority of countries, using the International Standard Classification of Education (ISCED). It should be noted that the



2008 EFA report also uses many other data sources, including national household surveys and specially commissioned studies. These enrich its analysis and enable it to map recent policy changes in countries and their potential impact on progress towards the achievement of EFA goals. For some countries, however, education data are collected via surveys carried out under the auspices of the World Education Indicators project (WEI) funded by the World Bank, or are provided by the Organization for Economic Co-operation and Development (OECD) and the Statistical Office of the European Communities (Eurostat) (UNESCO, 2006c).

Inevitably, the annex tables demonstrate that some major limitations exist in the coverage of data, especially on the financing of pre-primary education. This makes it difficult to monitor several dimensions of EFA goal 1 both nationally and globally, to undertake up-to-date trend analysis and, consequently, to monitor the progress towards EFA goal 1. Data gaps may also hinder aspects of national policy development in some of the Arab countries, though information may be available at national level but not reported to UNESCO or not easily transferable into an internationally comparable framework (UNESCO, 2007).

### **Data Analysis**

From the 2007 and 2008 statistical raw data as well as ECCE country profiles ( see Appendix A) , five outreaching research questions helped guide this study as it investigated the relationships among variables projected to impact the steady but slow provision of ECCE in the Arab States. The research questions as posed in Chapter I were as follows:

1. What are the main areas and levels of *ECCE policy* regulations and implementation in the Arab states?

- a) What are the legislative policies that have been developed to promote compulsory pre-primary education?
  - b) Does ECCE governance influence the quality, access and equity of ECCE?
  - c) How does pre-primary education finance in particular and education finance in general, impact ECCE provision in the Arab States?
2. What are the relationships between *child well-being* conditions in and equitable access to ECCE?
- a) Does poverty impact ECCE provision?
  - b) Is there a relationship between poverty levels and quality ECCE?
3. What is the relationship, if any, between *gender disparity* in pre-primary education and quality ECCE?
- a) Does gender disparity in pre-primary education influence gender disparity in primary education?
  - b) Does enrollment of students with ECCE experience in first grade correlate with gender disparity in pre-primary education?
4. What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and *primary education*?
- a) How does pre-primary education impact primary education?
  - b) Does pre-primary education influence the internal efficiency of primary education measured by rates of dropout in grade 1 and survival to grade 5?
  - c) What is the predictive strength of quality ECCE on primary education?
5. How does the *ECCE provision* in the Arab States compare to other developing countries, measured by progress towards *EFA goal 1*?

Table 5 shows the relationship of the questions on the ECCE country profiles (see Appendix A) to the research questions and the variables (indicators) in Table 6.

Table 5

*Research Questions and Related Indicators/ Country Profile Questions*

No.	Research Question	Related Indicator/Country Profile Questions
1	What are the main areas and levels of ECCE policy regulations and implementation?	1.1, 1.2, 4.3
1a	What are the legislative policies that have been developed to promote compulsory pre-primary education?	A, 3.1, 3.9.3
1b	Does ECCE governance influence the quality, access and equity of ECCE?	3.2 Indicators (8,9,10)
1c	How does pre-primary education finance in particular and education finance in general impact ECCE provision?	Indicator 7 1.3.2
2	What are the relationships between child well-being conditions and equitable access to ECCE?	Indicators (17, 18, 1)
2a	Does poverty impact ECCE provision?	Indicators (15, 18, 1)
2b	Is there a relationship between poverty levels and quality ECCE?	Indicators (16, 17, 8, 9, 10)
3	What is the relationship, if any, between gender disparity in pre-primary education and quality ECCE?	Indicators (13, 8, 9,10)
3a	Does gender disparity in pre-primary education influence gender disparity in primary education?	Indicators (13, 2, 5)
3b	Does enrollment of students with ECCE experience in 1 <sup>st</sup> grade correlate with gender disparity in pre-primary education?	Indicators (13,14)
4	What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and primary education?	Indicators (1, 2, 8,9, 10)
4a	How does pre-primary education impact primary education?	Indicators (1, 2, 3, 4, 5, 6)
4b	Does pre-primary education influence the internal efficiency of primary education measured by rates of dropout in grade 1 and survival to grade 5?	Indicators (1, 11, 12)

No.	Research Question	Related Indicator/Country Profile Questions
4c	What is the predictive strength of quality ECCE on primary education	Indicators
5	How does ECCE provision in the Arab States compare to other developing countries, measured by progress towards EFA goal 1?	Indicators (19, 20)

Table 6

*Variables*

No.	Variable/ Indicator	Status	Measurement
1	GER in pre-primary education	Independent	Scaled continuum
2	Percentage of new entrants in grade 1	Dependent	Scaled continuum
3	GIR in primary education	Independent	Nominal
4	NIR in primary education	Independent	Nominal
5	GER in primary education	Independent	Scaled continuum
6	NER in primary education	Independent	Scaled continuum
7	Finance in pre-primary education	Independent	Scaled continuum
8	Teaching staff	Dependent	Scaled continuum
9	Trained Teachers	Dependent	Scaled continuum
10	Pupil teacher ratio (PTR)	Dependent	Scaled continuum
11	Dropout rate in grade 1	Dependent	Scaled continuum
12	Survival rate to grade 5	Dependent	Scaled continuum
13	GPI in pre-primary education	Independent	Scaled continuum
14	GPI in primary education	Independent	Scaled continuum
15	Poverty level/ GNP per capita	Independent	Scaled continuum

No.	Variable/ Indicator	Status	Measurement
16	% under 5 mortality rate	Independent	Scaled continuum
17	% under 5 suffering from stunting	Independent	Scaled continuum
18	Provision under 3	Independent	Scaled continuum
19	EFA goal 1 in Arab States	Independent	Scaled continuum
20	EFA goal 1 in developing countries	Independent	Scaled continuum

The following section will discuss the statistical methods of measurement the investigator will employ to compare and contrast findings. The analysis of data will be conducted by measuring the results of the independent variables ( GER in pre-primary education, GIR, NIR, NER, GER in primary education, expenditure, GPI, poverty level, under 5 mortality rate, under 5 suffering from stunting, provision under 3 and EFA 1 goal 1 for Arab states and developing countries) and their significant impact if any, or association with the dependent variables (teaching staff, trained teachers, pupil teacher ratio, percentage of new entrants in grade 1, dropout rate in grade 1, and survival rate in grade 5). It should be noted that for research question 1, ECCE country profiles of the Arab States prepared by UNESCO's International Bureau of Education (IBE) in collaboration with UNICEF, will be the source of variables investigated. On the other hand, of the 20 Arab countries, five countries (Algeria, Djibouti, Iraq, Libyan Arab Jamahiriya and Saudi Arabia) do not have any ECCE country profile reported by IBE. Hence, for question 1, data analysis will target 15 not 20 Arab countries.

Collected data from the ECCE country profiles and the indicators from 2007 and 2008 statistical annexes will be transferred into the SPSS program for analysis. Descriptive data

including means, minimum and maximum scores, standard deviations, and frequencies for all variables will be generated. The answers to open ended questions for the ECCE country profiles will be analytically evaluated and explored. Descriptive statistics and Pearson correlations will be conducted to find relationships between and among variables, depending on the research questions asked.

### **Statistical Procedures**

To answer research question (RQ) 1 and 1-a, a trend analysis was conducted to display the differences within the Arab countries in their legislations and ECCE policies for compulsory pre-primary education. Tables and graphs were followed with an explanation and a summary of the findings within each of ECCE country profile, if applicable.

To answer research questions 1-b, 1-c, 2, 2-a, 3, 3-a, 3-b, data were analyzed using Pearson correlations. To answer the research questions, pre-primary education governance, expenditure, under 5 mortality rate, under 5 stunting levels, GNP per capita, and GPI were used as independent variables, and each of the variables, such as teaching staff, trained teachers, PTR, and GER in primary education (RQ 3-a) and pre-primary education (RQ 2-a), was used as a dependent variable.

To answer research question 2-b and 4, Pearson correlations are also conducted to find the relationship between the dependent variables such as teaching staff, trained teachers, and PTR and the independent variables such as under 5 mortality rates and under 5 stunting levels (RQ 2b) and GER in pre-primary education and percentage of new entrants to first grade (RQ 4).

In a similar way, to answer research question 4-a, 4-b, and 4-c data were analyzed using correlations. GER in pre-primary education, and GER of new entrants in grade 1 with

ECCE experience were the independent variables, and GIR, NIR, GER, and NER in primary education were the dependent variables.

## Chapter IV

### DATA ANALYSIS AND FINDINGS

The purpose of this study was to determine the factors that play a role in the slow provision of early childhood care and education programs in the Arab States, compared to other regions in the world. Accordingly, this chapter will present the findings of this study. First, profiles of Arab countries in terms of their relation to ECCE are discussed. Next, analysis of the selected data from UNESCO's 2007 and 2008 statistical annex are presented using descriptive data and Pearson correlation coefficients with each set of research questions described in Chapter III. Related tables and figures of the analyzed data are also presented, with text summarizing the results.

To that end, data describing ECCE provision in the Arab States are presented, including the means, minimum and maximum values, and standard deviations for all education indicators and demographic variables (see Table 6) used in this study.

#### **Profiles of Arab Countries**

In the majority of Arab countries, data on early childhood is scarce in a number of key areas such as participation, financial and human resources, educational context, and early childhood learning and outcomes. This is partly due to the fact that early childhood services are dominated by the private sector and governments do not always have complete data on that sector. Additionally, ECCE research is challenged by numerous limitations such as social and political opposition to revealing information and paucity of data on certain population groups (Faour et al, 2006).

From a governance perspective, even though ECCE programs and centers are provided by all Arab countries, pre-primary school attendance was never legislated as



compulsory (UNESCO, 2006b). The starting age for compulsory education in all Arab countries, according to UNESCO Institute for Statistics (UIS), is 6 years, the official age of first grade (primary education). Concurrently, to classify education data, UNESCO UIS utilizes the International Standard Classification of Education (ISCED) as a tool to comparably measure national education systems across different education levels. Within this system, ISCED Level 0 refers to pre-primary education.

In the Arab countries, starting age for pre-primary education, offered either through private or public sectors, differs based on policy and funding regulations. Table 7 reports the number of Arab countries by normative age group covered by ISCED 0 programs. More than half (60%) of the Arab countries have (4-5) years as the normative age group covered by ISCED 0 programs while the rest (40%) have it as (3-5) years for their early childhood programs.

Table 7

*Number of Arab Countries by Normative Age Group Covered by ISCED 0*

Normative Age Group (ISCED 0)	Arab Countries (%)
3-5	8 (40%)
4-5	12 (60%)
Total	20 (100%)

When it comes to pre-school education in the Arab states, not only the entry level but also the duration differ from one country to another. In some countries<sup>16</sup>, children start at

<sup>16</sup> These are Bahrain, Lebanon, Mauritania, Qatar, Saudi Arabia, Syria, Tunisia and Yemen.

age 3 and spend 3 years in ECCE programs before joining basic education, while in other countries<sup>17</sup> children start at age 4 and spend 2 years in ECCE (UNESCO, 2006c).

This trend is greatly influenced by the prevalence of private day care centers, industrialization, and increased number of women with young children entering the labor force and families with two working parents. It should be noted that “the private sector comprises profit making businesses which are mostly provided in formal, institutional settings and non-profit community-based or NGOs or funded by international NGOs often in non-formal settings” (Faour et al., 2006, p. 10).

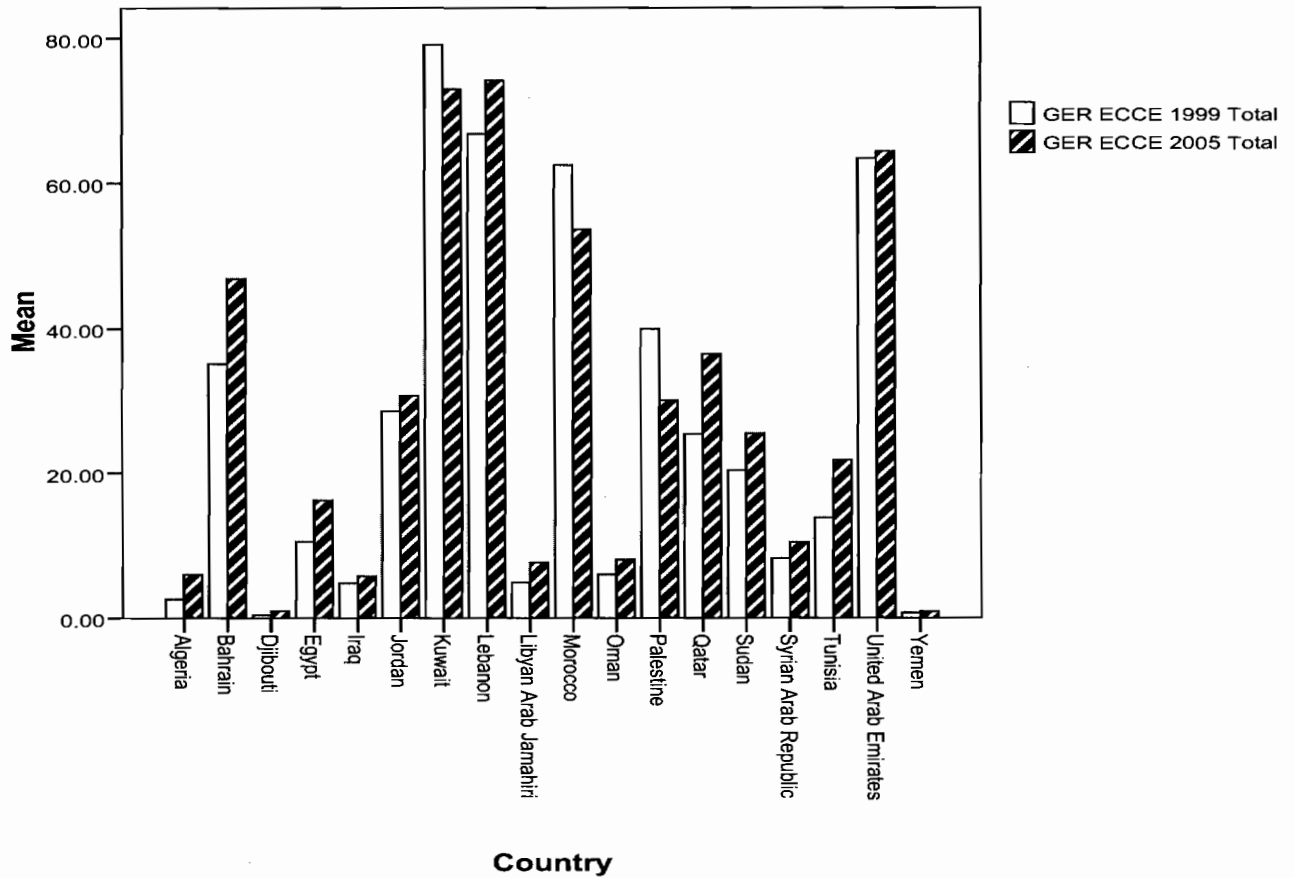
### **Pre-primary Education Enrollment**

In the Arab States, an increase of 18% in the number of children enrolled in pre-primary schools and centers since 1999 resulted in the number of children in pre-primary education reaching 2.9 million in 2005. Notwithstanding this growth, the overall region’s gross enrollment ratio (GER) in pre-primary education remained below 20% in 2005. As illustrated in Figure 5, Lebanon shows the highest participation level where almost 75% of the corresponding age group was enrolled in pre-primary school in 2005. On the other hand, pre-primary GERs showed a significant decrease between 1999 and 2005 in Kuwait, Palestine and Morocco.

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<sup>17</sup> These are Algeria, Djibouti, Egypt, Iraq, Jordan, Kuwait, Libya, Morocco, Oman, Palestine, Sudan, and UAE.

**Figure 5. Changes in Gross Enrollment Ratios in the Arab States between 1999 and 2005**



Source: UNESCO, 2007

Table 8 presents the descriptive data of pre-primary education gross enrollment ratios (GERs) in the Arab states in 1999 and 2005. Comparing absolute means, this table identifies no significant change in pre-primary GERs between 1999 and 2005 in the Arab states region. The reported change in pre-primary education GER absolute mean is only 0.07% where the calculated GER mean was 26.26 % (SD=25.85) in 1999 and then decreased to 26.19% (SD=24.34) in 2005.

In 1999, countries with GERs above the calculated mean (26.26%) are Bahrain (35.1%), Jordan (28.59%), Kuwait (79.05%), Lebanon (66.75%), Morocco (62.42%), Palestine (39.95%), and United Arab Emirates (63.28%). In contrast, countries reported with GERs below the calculated mean are Algeria (2.56%), Djibouti (0.42%), Egypt (10.51%), Iraq (4.75%), Libya (4.83%), Oman (5.97%), Qatar (25.37%), Sudan (20.37%), Syria (8.22%), Tunisia (13.78%) and Yemen (0.70). Only Mauritania and Saudi Arabia did not report their pre-primary GERs to UNESCO.

Similarly, in 2005, countries with GERs above the calculated mean (26.19%) are Bahrain (46.8%), Jordan (30.7%), Kuwait (72.9%), Lebanon (74.1%), Morocco (53.6%), Palestine (30.1%), Qatar (36.5%), and United Arab Emirates (64.3%). On the other hand, countries with GERs below the calculated mean are Algeria (6%), Djibouti (1%), Egypt (16.2%), Iraq (5.72%), Libya (7.6%), Mauritania (1.73%), Oman (8%), Saudi Arabia (10%), Sudan (25%), Syria (10.4%), Tunisia (21.73%), and Yemen (0.9%). All countries reported their pre-primary education GERs to UNESCO. As mentioned earlier, Figure 3 displays the changes reported in pre-primary GERs in the Arab States between 1999 and 2005. Noticeably, Qatar was the only country from all 20 Arab countries to report a significant increase in GER where its value moved from below the mean (25.37%) to above the mean (36.5%). This noticed change can be attributed to the growth of the ECCE private sector in Qatar (UNESCO, 2006a).

Looking at the maximum and minimum GER values presented in Table 8, in 1999, Djibouti reported the minimum GER value of (0.42%) where Kuwait reported the maximum GER value of (79.05%). In Kuwait, almost 80% of children between the ages of 3 and 5 were given the opportunities to participate in different forms of ECCE programs. In contrast, in Djibouti, less than 1% of children between the ages of 3 and 6 years were

enrolled in pre-primary education programs in 1999. Traditionally, education in Djibouti, a largely Islamic country, is the domain of the Koranic schools where teaching is in Arabic. Koranic, community-based preschools are especially abundant; here children learn the Holy Koran, reading, writing, religious instruction, Islam, and how to perform prayers. These preschools, usually run by a *sbeikb* and staffed by preschool teachers characterized by good memory, honesty, modesty, and total dedication to their mission, do not necessarily emphasize skill-oriented activities. Private preschools serve less than 500 children, or 0.4 percent of the population (0 to 6 years of age). Tuition fees of about \$1,000 a year are out of the reach of any but the most affluent parents (UNESCO, 2006c).

In a similar vein, in 2005, pre-primary GER in Djibouti increased to 1% where it decreased to almost 72% in Kuwait. Accordingly, the minimum pre-primary GER value of (0.9%) was reported by Yemen and maximum GER value of (74.1%) was reported by Lebanon. In the case of Lebanon, it is important to note that the increase in terms of enrollment is a result of a new curriculum implementation which had included kindergarten in its public education system and made it free (UNESCO, 2004 c).

Table 8

*Descriptive Data for Pre-primary GER, 1999 – 2005*

Section	N	Min	Max	M	SD
Pre-primary GER 1999	18	.42	79.05	26.26	25.85
Pre-primary GER 2005	20	.90	74.10	26.19	24.34

Note: GER=Gross Enrollment Ratio

### **New Entrants to First Grade**

Used as an education indicator by UNESCO, new entrants to first grade with ECCE experience stands for the percentage of new entrants to the first grade of primary school who have attended the equivalent of at least 200 hours of organized ECCE programs, expressed as a percentage of the total number of new entrants to the first grade. Table 9 reports the descriptive data of the new entrants to first grade in 2005 in the Arab region where only nine Arab countries<sup>18</sup> had this education indicator reported to UNESCO's UIS. Accordingly, the absolute mean value calculated for this index indicates that approximately 52% of new first grade entrants had been exposed to pre-primary education in these countries. Arab countries with percentage value above the calculated mean are Bahrain (80%), Kuwait (77%), Lebanon (94%), and United Arab Emirates (79%). Countries with percentage value below calculated mean are Algeria (3%), Jordan (49%), Mauritania (24.75%), Sudan (48.78%), and Syria (12%). Again, variations in enrollment are evident where maximum values are reported in countries within the wealthy gulf region such as Bahrain, Kuwait and United Arab Emirates or in countries with a high percentage of working women such as Lebanon (UNESCO, 2006a).

Comparing male and female attendance in first grade, this table depicts parity in both groups' attendance where the mean percentage of new entrants to first grade with ECCE experience is 52.72% for the male group and 51.69% for the counterpart. Reaching parity at this level of education indicates how equitable access to ECCE in these countries supports

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<sup>18</sup> The nine Arab countries that reported total new entrants to 1<sup>st</sup> grade are Algeria, Bahrain, Jordan, Kuwait, Lebanon, Mauritania, Sudan, Syria, and United Arab Emirates. Jordan was the only country that did not include in its report male and female values.

the social needs of families and working parents (Faour et al., 2006). Figure 6 displays the values of male and female new entrants to first grade with ECCE experience.

As a final point, the minimum attendance of new entrants to first grade percentage value of (3%) is reported by Algeria and the maximum attendance of new entrants to first grade percentage value (94%) is reported by Lebanon. This substantial variation can be attributed again to the magnitude of the private sector prevalence in each Arab country where Algeria had nothing reported for its private ECCE sector and Lebanon has almost 75% of its ECCE programs governed by the private sector (UNESCO, 2006a).

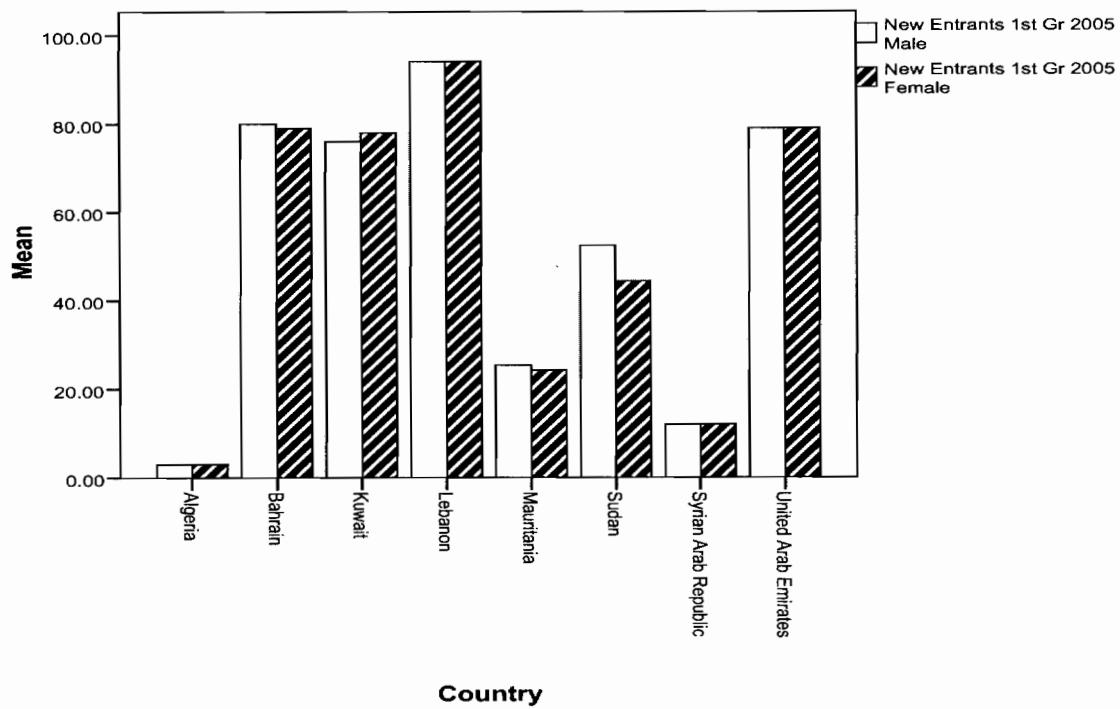
Table 9

*Percentage of New Entrants to 1<sup>st</sup> Grade with ECCE Experience, 2005*

	N	Min	Max	Mean	SD
New Entrants 1st Grade 2005 Male	8	3	94	52.72	34.97
New Entrants 1st Grade 2005 Fem.	8	3	94	51.69	35.32
New Entrants 1st Grade 2005 Total	9	3	94	51.95	32.91

Source: UNESCO, 2007

**Figure 6. Male and Female New Entrants to 1st Grade with ECCE Experience, 2005**



### Primary Education Enrollment

In this study, four education indicators were used to examine primary education enrollment in the Arab states. These indicators are: (a) gross intake rate (GIR); (b) net intake rate (NIR); (c) gross enrollment ratio (GER); and (d) net enrollment ratio (NER). Within these four indicators, primary education enrollment changes between 1999 and 2005 were examined. Table 10 reports the descriptive data of these primary education enrollment indicators.

According to UNESCO's classification, gross intake rate is the total number of new entrants to a given grade of primary education, regardless of age, expressed as a percentage of the population at the official school entrance age for that grade. According to Table 10 output, there is no significant change in the means of GIR in primary education between



1999 and 2005. The accounted change is only 0.69% in favor of gross intake rate in 2005 [2005 GIR mean=93.84, SD=18.22; 1999 GIR mean=93.15, SD=20.15]. In 2005, countries with GIR values above the calculated mean (93.84%) are Algeria (101%), Bahrain (104%), Egypt (102%), Iraq (107%), Lebanon (101%), Mauritania (112%), Morocco (99%), Qatar (106%), Syria (121%), Tunisia (100%), and Yemen (110%). It should be noted that for those countries with GIRs above 100, it is unclear whether this is due to students repeating programs, the enrollment of students outside of the official age group, or a combination of both factors.

On the other hand, countries with GIR values reported below calculated mean are Djibouti (43%), Jordan (85%), Kuwait (93%), Oman (74%), Palestine (82%), Saudi Arabia (87%), Sudan (67%), and United Arab Emirates (89%). Libya was the only country with no GIR values reported.

Additionally, in 1999, the minimum GIR value (29.57%) was reported by Djibouti, while the maximum GIR value (112.1%) was reported by Morocco. In 2005, the minimum GIR value (43%) is still reported by Djibouti; however, maximum GIR value (121%) is reported in Syria. The GIR value of more than 100 % in Syria can be contributed to increased enrollment of students outside the official age group.

In this study, net intake rate refers to new entrants of the first grade of primary education who are of the official primary-school entrance age, expressed as a percentage of the population of that age. As reported in Table 10, 2005 NIR mean is 64.40% with a standard deviation of 20.87 where as 1999 NIR mean is 58.73% and a standard deviation of 20.33. This indicates an increase of 5.67% in net intake rate for first grade from 1999 to 2005.

In 2005, countries with NIR values in primary education reported above the calculated mean (64.4%) are Algeria (88%), Bahrain (86%), Egypt (91.72%), Iraq (82%), Lebanon (75%), Morocco (81%), and Tunisia (88%). Countries with NIR values reported below the calculated mean are Djibouti (30.38%), Jordan (60%), Kuwait (54%), Mauritania (35%), Oman (53%), Palestine (61%), Saudi Arabia (48%), Syria (62%), and United Arab Emirates (34%). Countries with no reported NIRs in primary education are Libya, Qatar, Sudan, and Yemen. With this vast variation in primary education enrollment in the Arab countries, it seems that many are still far from attaining universal primary education (UPE).

The third education indicator, gross enrollment ratio, refers to the total enrollment in first grade, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of primary education. Increased participation in primary education is calculated based on gross enrollment ratios (GERs) in primary education for students 6 years of age and older. The ratios are calculated by dividing the number of students enrolled by the total number of students in the official age population. Given this calculation method, the GER may exceed 100 due to over-age enrollment and student repetition for the periods under review.

As depicted in Table 10, an increase of only 1.34 % in the mean of primary education GER is observed in 2005. 1999 GER absolute mean is 93.26 % with a standard deviation of 20.83 while the 2005 GER absolute mean is 94.6 % with a standard deviation of 18.61.

In 2005, countries with GER values in primary education reported above the calculated mean (94.6%) are Algeria (112%), Bahrain (104%), Egypt (101%), Iraq (98%), Jordan (96%), Kuwait (98%), Lebanon (106%), Libya (106%), Morocco (105%), Qatar (106%), Syria (124%), and Tunisia (109%). In contrast, countries with GER values reported below

calculated mean include Djibouti (40%), Mauritania (93%), Oman (82%), Palestine (89%), Saudi Arabia (91%), Sudan (60%), United Arab Emirates (83%), and Yemen (89%).

As presented in Table 10, the minimum GER values in primary education in 1999 and 2005 were both reported in Djibouti (35%) and (40%), respectively; however, in 1999, the maximum GER reported value (115%) was in Lebanon versus the maximum GER value (124%) in Syria. In Djibouti, even though primary education is free and compulsory, low GERs remain prevalent for two reasons: (a) Lack of governmental monitoring compliance with compulsory attendance policy; and (b) poor school conditions that need upgrading. On the other hand, in Lebanon and Syria, GER values of 115% and 124% indicate that many students attending primary schools are not necessarily in their right age group, whether for delayed enrollment or grade repetition.

The last primary education enrollment indicator used is net enrollment ratio (NER). NER refers to the enrollment of the official age group for a given level of education, expressed as a percentage of the population in that age group. In other words, NER only takes into account enrolled children who belong to the official age range (e.g. 6- to 12-year-olds enrolled in primary school), regardless of whether younger or older children are also enrolled; thus it cannot exceed 100%. As a measure of the coverage of children in the age range officially associated with a given level of education, the NER comes closer to being an indicator of school quality. UPE implies a NER at or near 100%. A high GER is not necessarily a sign of progress towards UPE if the NER is much lower (UNESCO, 2004a).

As depicted in Table 10, the difference between the means of 2005 NER and 1999 NER in primary education in the Arab states is only 0.65% in favor of 2005 NER. For 1999, the reported NER mean is 82% with a standard deviation of 18.21 where as for 2005

the reported NER mean is 82.65% with a standard deviation of 15.82. No significant improvement is accounted.

In 2005, Arab countries with reported NER values in primary education above the calculated mean (82.65%) are Algeria (97%), Bahrain (97%), Egypt (94%), Iraq (88%), Jordan (89%), Kuwait (87%), Lebanon (92%), Morocco (86%), Qatar (96%), and Tunisia (97%). Reported countries with NER values in primary education below the calculated mean are Djibouti (33%), Mauritania (72%), Oman (73%), Palestine (80%), Saudi Arabia (78%), United Arab Emirates (71%), and Yemen (75%). Libya, Saudi Arabia and Sudan never reported their NER values in primary education.

According to Table 10, again, Djibouti reported in 1999 and 2005 the minimum NER values of 28% and 33% respectively, in primary education. The accounted maximum value for NER is 97% in both 1999 and 2005, and reported by Palestine and Tunisia respectively.

Figure 7 compares the changes in all primary education indicators between 1999 and 2005 in the Arab states.

Table 10

*Primary Education Enrollment Indicators in the Arab States, 1999-2005*

Section	N	Min	Max	Mean	SD
GIR Primary Ed Total 1999	17	29.57	112.1	93.15	20.15
GIR Primary Ed Total 2005	19	43	121	93.84	18.22
NIR Primary Ed 1999 Total	13	21.68	85.71	58.73	20.33
NIR Primary Ed 2005 Total	16	30.38	91.72	64.40	20.87
GER Primary Ed 1999 Total	19	35	115	93.26	20.83
GER Primary Ed 2005 Total	20	40	124	94.6	18.61
NER Primary Ed 1999 Total	17	28	97	82	18.21
NER Primary Ed 2005 Total	17	33	97	82.65	15.82

Note: GIR=Gross Intake Rate; NIR=Net Intake Rate; GER=Gross Enrollment Ratio; NER= Net Enrollment Ratio

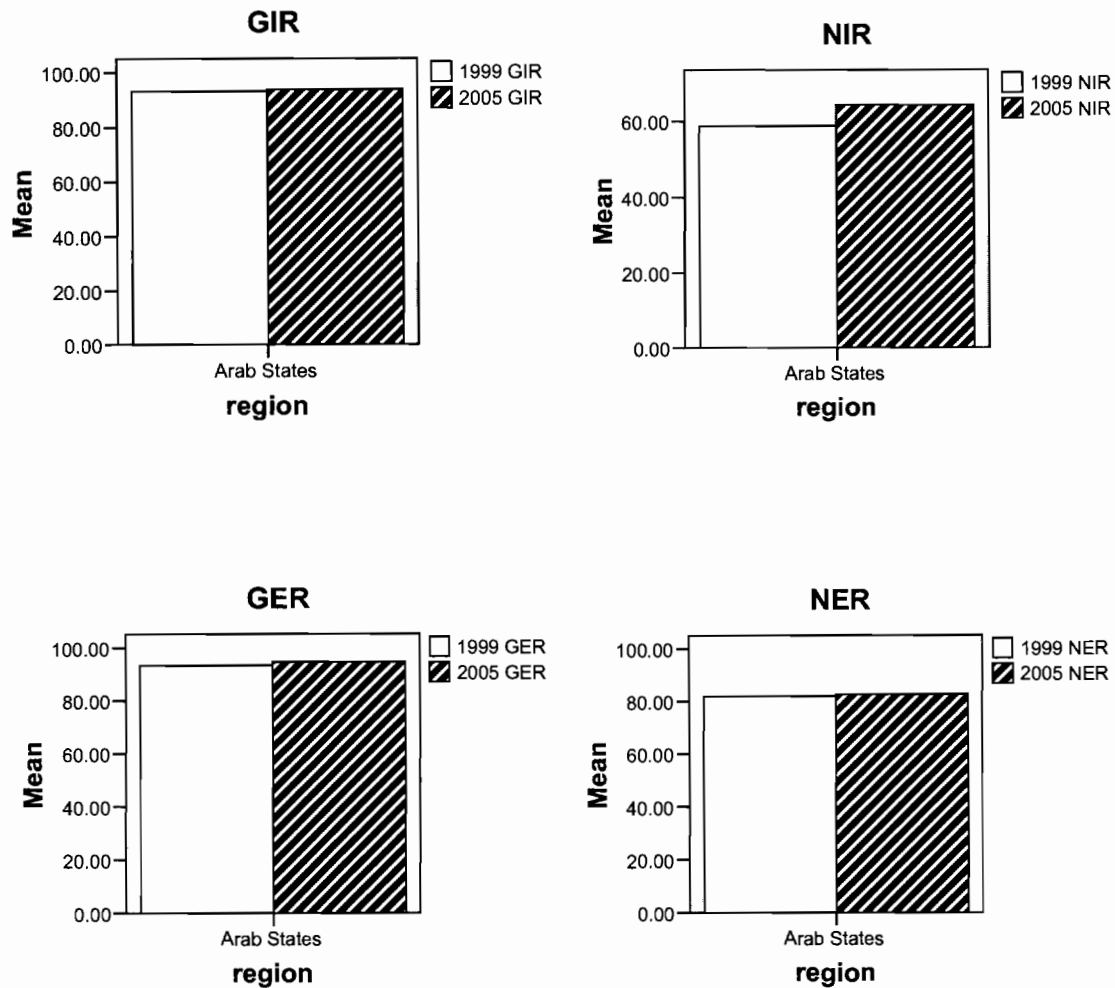


Figure 7. Primary Education Indicators in the Arab States, 1999-2005

### Pre-primary Education Finance

In the majority of the Arab countries, most of the ECCE services provided, which are found in urban areas and major affluent cities are profit making businesses; hence, children of higher income and better educated parents are the most likely to have the advantage of participating in such ECCE programs. Additionally, by looking at how much a particular

country is spending on ECCE and the role the government plays in planning, funding, and providing for ECCE services, one can ascertain the level of importance this government places on ECCE services. Notwithstanding, data on expenditures on this particular area of early childhood is almost non-existent in the majority of Arab countries. Available data refer broadly to education with no allocation for the pre-primary stage. Table 11 presents the total public education current expenditure per pupil as percentage of the Gross National Product (GNP) in 1999 and 2005. In general, this indicator helps in assessing a country's investment in its human capital development. Additionally, it measures the relative emphasis placed by the country on a particular level of education, whether, pre-primary, primary, secondary or tertiary.

As depicted in Table 11, there is no significant change in the mean of the total public education expenditure between 1999 and 2005, even though no consistency occurred in the Arab countries reporting their expenditures<sup>19</sup>. The mean for the total public education expenditure in 1999 is 4.96% with a standard deviation of 1.98 where as in 2005 the calculated mean is 4.86% with a standard deviation of 2.28. Furthermore, it appears that Saudi Arabia had the highest allocation (7.2%) of education expenditure per pupil while Lebanon had the lowest (2%). In 2005, the scenario is different where the highest allocation (7.6%) was reported by Tunisia and the lowest (1.6%) by UAE, respectively.

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<sup>19</sup> In 1999, the seven countries reporting their education public expenditures are Jordan, Lebanon, Mauritania, Morocco, Oman, Saudi Arabia, and Tunisia. In 2005, the 9 countries with this data are Djibouti, Kuwait, Lebanon, Mauritania, Morocco, Oman, Saudi Arabia, Tunisia and UAE.

Table 11

*Total (000) Public Education Expenditure 1999-2005*

Section	N	Min	Max	Mean	SD
Total Public Expenditure 1999	7	2	7.2	4.96	1.98
Total Public Expenditure 2005	9	1.6	7.6	4.86	2.28

**Pre-Primary Education Teaching Staff**

Providing quality pre-primary education means teachers must be recruited in adequate numbers, trained to be effective and deployed where they are needed. In this study, three education indicators about pre-primary staff are used to measure quality ECCE in the Arab States. These are the total number of teaching pre-primary staff, the percentage of their training level and the pupil teacher ratio.

Descriptive data about pre-primary teaching staff in the Arab states and their training levels are reported in Table 12. The total number of pre-primary teachers increased slightly between 1999 and 2005 in about 80% of the 19 Arab countries with data available (see Figure 8). This improvement was remarkable in Egypt and Syria where an accounted increase of five thousand and two thousand pre-primary teachers were reported, respectively. As depicted in Table 12, in 1999 and 2005, Morocco reported the maximum number (40



thousand) of pre-primary staff, where as the minimum is reported in Djibouti (10 pre-primary teachers) and Mauritania (30 pre-primary teachers), in 1999 and 2005 respectively.

Concurrently, data on the numbers of trained teachers in the Arab countries is scarce. In 1999, only Bahrain (18%), Kuwait (100%), Oman (93%), Syria (87%), and UAE (59%) reported the percentage of trained teachers. Likewise, in 2005, Djibouti (100%), Kuwait (100%), Lebanon (11%), Morocco (100%), Oman (100%), Palestine (100%), Sudan (60%), Syria (16%), and UAE (50%) reported their trained teachers' percentages. As depicted in Table 12, there is a slight increase in the percentage of trained pre-primary teachers between 1999 and 2005 in all Arab countries with data reported except for Syria and United Arab Emirates (UNESCO, 2007), where the reported decrease for trained teachers percentage is 71% and 9%, respectively.

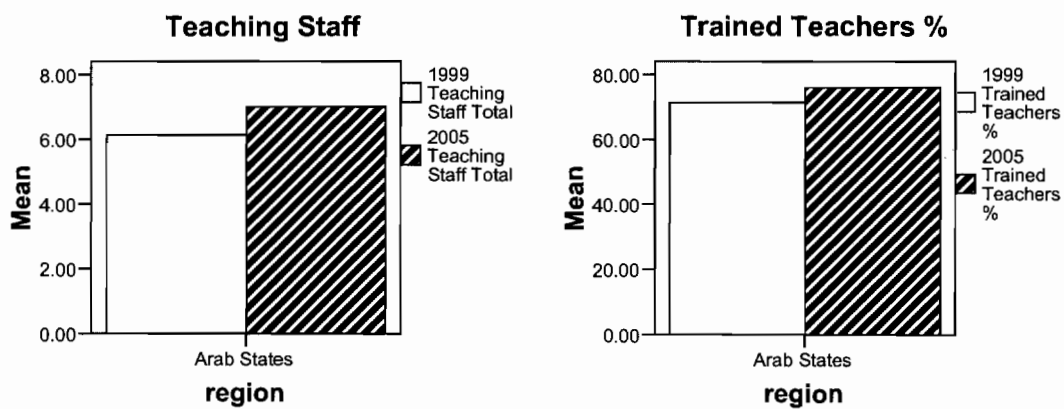
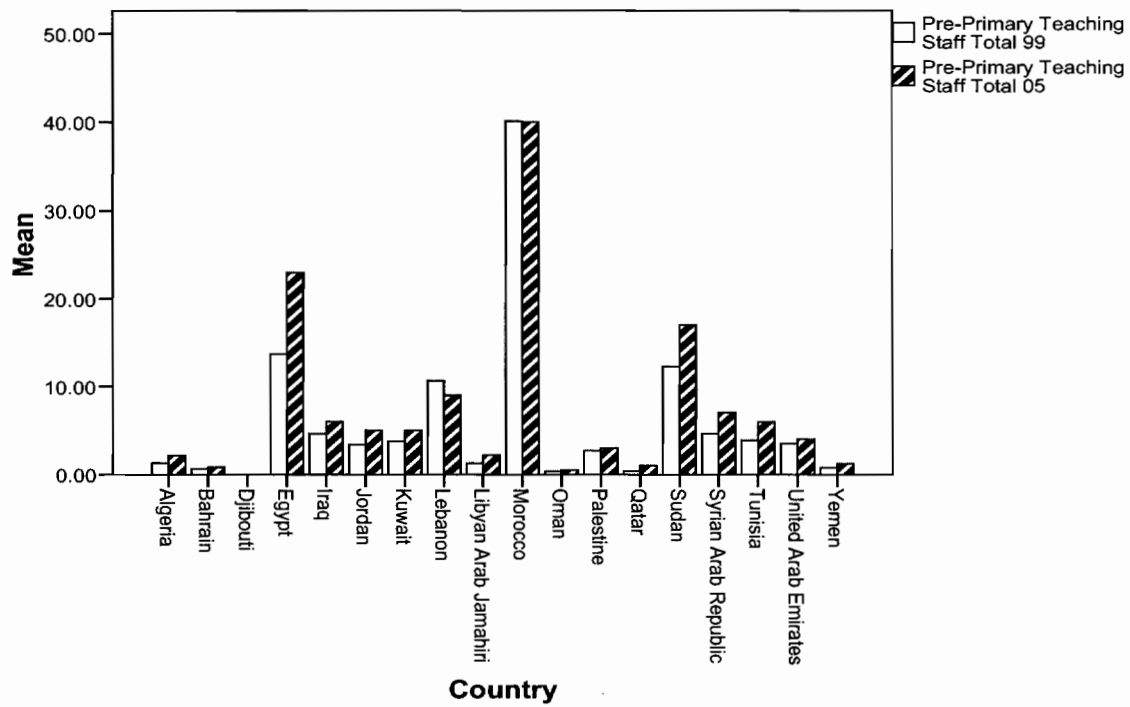
Figure 9 displays the changes between 1999 and 2005 in total number and training levels of pre-primary teaching staff in the Arab states.

Table 12

*Pre-primary Teaching Staff in the Arab States, 1999-2005*

Section	N	Min	Max	Mean	SD
Teaching Staff (000) 1999	19	.01	40.09	6.13	9.21
Teaching Staff (000) 2005	19	.03	40	7.01	9.93
Trained Teachers (%) 1999	5	18.33	100	71.44	33.45
Trained Teachers (%) 2005	11	11	100	76.09	35.76

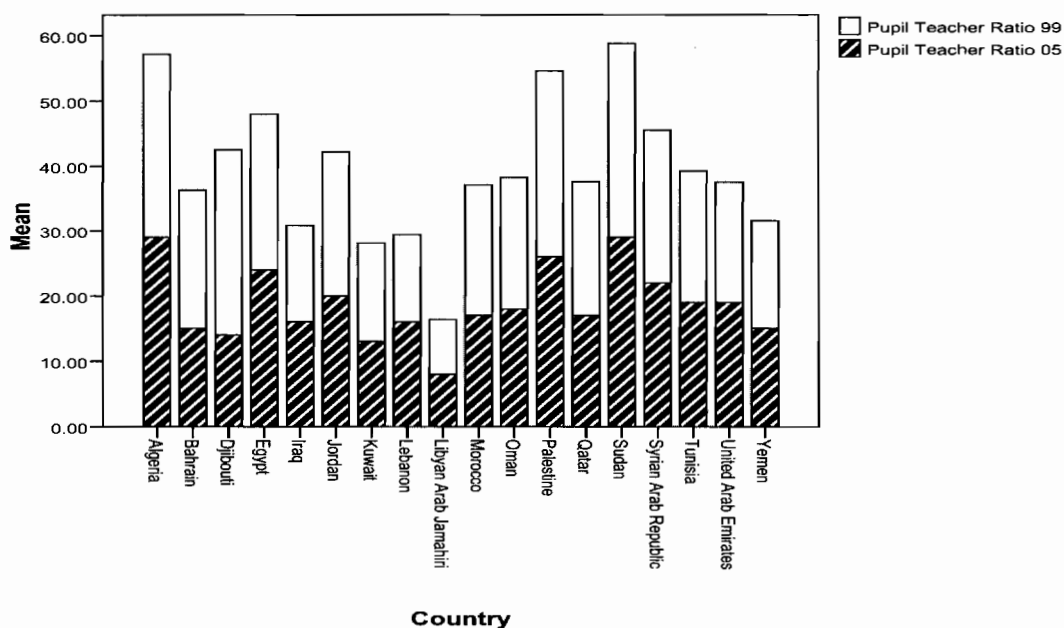
**Figure 8. Changes in Pre-primary Staff Total Numbers, 1999-2005**



**Figure 9. Pre-primary Teaching Staff Total Numbers and Training Levels, 1999-2005**

Equally important, pupil teacher ratio (PTR) is a key indicator used to measure quality pre-primary education. Interestingly, PTR in the Arab States decreased to some extent between 1999 and 2005 to reach a regional average of 20:1, indicating a moderate progress in pre-primary education quality. Figure 10 depicts the improvement noticed with this downward trend which appears to be more significant in countries such as Bahrain, Djibouti, and Qatar.

**Figure 10. Changes in PTR in Pre-primary Education between 1999 and 2005**



It should be noted that the interaction between the child and the care-giver or teacher is the key determinant of the quality of ECCE programs (UNESCO, 2006b). In general, high pre-primary pupil/teacher ratios indicate insufficient numbers of teachers and inadequate and poor-quality teaching and learning processes. The higher the number of children in class, the less attention each individual child gets from the teacher, and the less are the chances of providing child-centered pedagogy. In the Arab countries, pre-primary teachers are not

equally distributed, as the disparities between public and private institutions indicate (UNESCO, 2006b). For example, in countries where pre-primary enrollment is almost solely in private institutions, pupil/teacher ratios are low, indicating the provision of quality ECCE. Pre-primary enrollment in private institutions as a percentage of total enrollment ranges from 94% in Qatar to 100% in all of Bahrain, Morocco, Oman and Palestine. Accordingly, PTR ranges from 15:1 in Bahrain to 18:1 in Qatar. Notably, PTR is considered high in Palestine (26:1) even though ECCE is governed solely by private institutions. On the other hand, a high PTR is reported in Sudan, Algeria and Egypt where the private sector only governs around 30% of total pre-primary education in Egypt and 70% in Sudan. No private ECCE governance is reported in Algeria.

Table 13 reports the pupil teacher ratio (PTR) for pre-primary education in the Arab states in 1999 and 2005. As indicated in the table, the mean of PTR for pre-primary education in 2005 is 18.74 with a standard deviation of 5.40 where as the mean of PTR in 1999 is 20.25 with a standard deviation of 6.12, indicating a decrease value of 1.51, and hence a progress in the quality of ECCE programs in general.

Table 13

*Pre-primary Education Pupil Teacher Ratio, 1999-2005*

Section	N	Min	Max	Mean	SD
PTR 1999	19	8.36	29.8	20.25	6.12
PTR 2005	19	8	29	18.74	5.4

Note: PTR=Pupil Teacher Ratio

### **Primary Education Efficiency**

The key to effective services for young children is continuity of certain elements that characterize all good early childhood programs. Interestingly, through integration of ECCE with primary education a coherent system of policy, governance, administration, and monitoring for both ECCE and primary schools is developed. This is the trend followed by the majority of developed countries (UNESCO, 2006b). Even though pre-primary education is not fully governed by the public sector in the Arab States, it is essential to examine how pre-primary education supplement primary education; and this can be determined by how efficient the primary education system is. Available data on internal efficiency show slight decline in repetition rates, improvement in the number of pupils staying at school until the fifth grade and better performance of girls as compared to boys. On the other hand, the primary level of the education systems in the Arab States still shows weaknesses in internal efficiency: persistence of drop-out and repetition (which increase the higher one goes up the educational ladder), and the long time needed to complete primary education (UNESCO, 2006a).

In this study, primary education efficiency is measured by two education indicators: (1) drop out rates (DOR) in grade 1 and (2) survival rates to grade 5. According to UNESCO (2006b), drop out rate by grade is the percentage of students who drop out from a given grade in a given year. It is the difference between 100% and the sum of the promotion and the repetition rates. Survival rate by grade 5 is the percentage of a cohort of students who are enrolled in the first grade of an education cycle in a given school year and are expected to reach fifth grade regardless of repetition (UNESCO, 2006b, 2007a).

### *Drop Out Rates in Grade 1*

Table 14 presents the descriptive statistics for the drop out rates by first grade in 2004. Accordingly, both means of male and female drop out rates by first grade for the countries with available data in 2004 are approximately equal to 4 %. Only 14 countries reported their DOR. These are Algeria (0.8%), Egypt (0.2%), Iraq (11.1%), Jordan (0.7%), Lebanon (1.5%), Mauritania (5.8%), Morocco (6%), Oman (0.2%), Palestine (0.9%), Saudi Arabia (0.5%), Sudan (6.1%), Syria (3.5%), UAE (3.9%), and Yemen (11.3%). Thus, enrollment in first grade is maintained the most in Egypt (0.2%) where as students drop out of first grade mostly in Yemen (11.3%). Countries that did not report their DOR for first grade are Bahrain, Djibouti, Kuwait, Libya, Qatar, and Tunisia.

Table 14

#### *Drop Out Rates by First Grade, 2004*

Section	N	Min	Max	Mean	SD
DOR in First Grade Female	14	.1	13.4	3.91	4.4
DOR in First Grade Male	13	.3	10.2	3.99	3.41
DOR in First Grade Total	14	.2	11.3	3.75	3.85

Note: DOR=Drop Out Rate

### *Survival Rates to Grade 5*

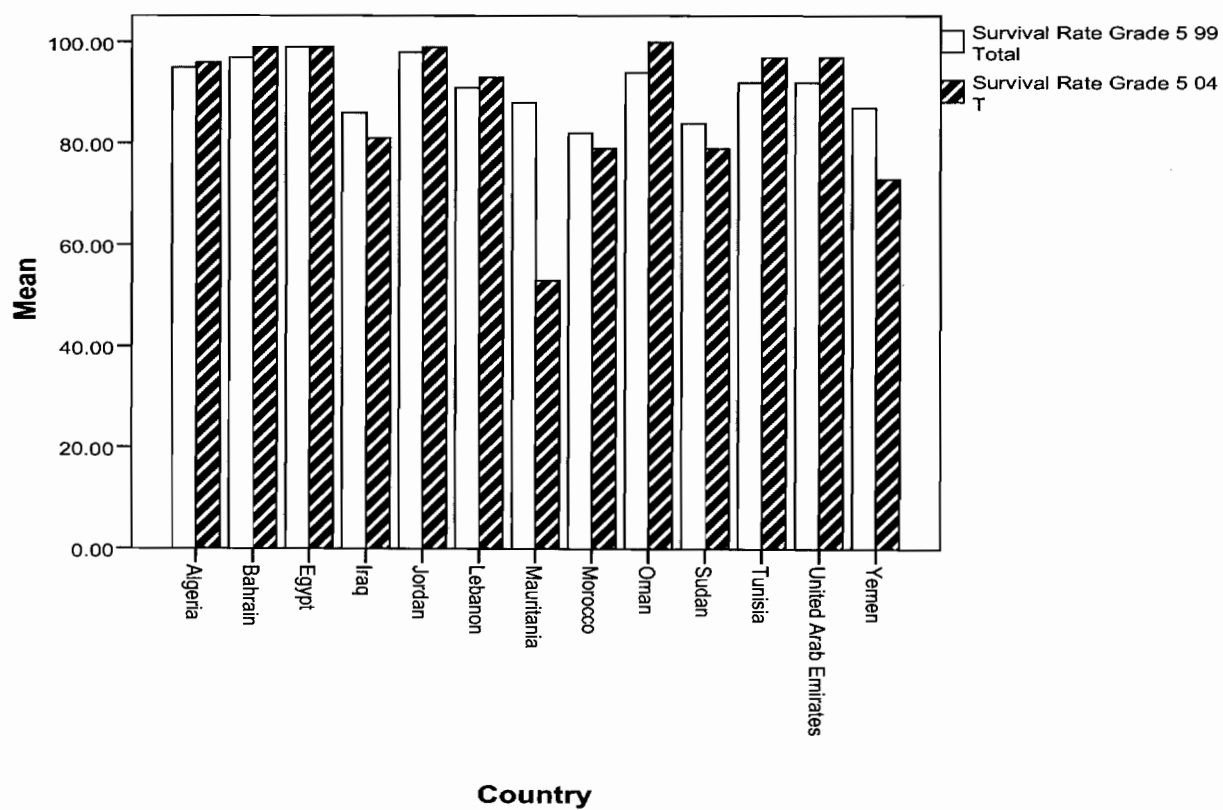
Among the feasible proxy indicators available for a large number of countries, the survival rate to grade five was selected as being the best to measure internal efficiency in primary education (UNESCO, 2006c). Table 15 presents the descriptive statistics for the survival rates to grade 5 in the Arab States in 1999 and 2004. Surprisingly, a drop of 2.19% in the mean of the survival rate to grade 5 in 2004 is apparent. Hence, primary education efficiency in the Arab States declined between 1999 and 2004. In general, education systems that are capable of retaining a larger portion of their pupils to grade 5 perform better, on average, in their academic outcomes.

As depicted in Table 15, the mean of the survival rate to grade 5 in 2004 is 88.08 with a standard deviation of 14.20 where as in 1999 the mean is 90.27 with a standard deviation of 6.23. Examining individual country's survival rates to grade 5, it appears that Mauritania's survival rates in grade 5 dropped from 68% to 53%, while they increased from 66% to 81% in Iraq. Countries with no data reported about survival rates to grade 5 are Djibouti, Kuwait, Libya, Palestine, Qatar, Saudi Arabia, and Syria. Figure 11 displays the changes in survival rates to grade 5 in the Arab sates between 1999 and 2004. It should be noted that inconsistency of reporting data to all education indicators make the process of examining primary education efficiency and quality ECCE exigent and limited.

Table 15

*Survival Rates to Grade 5, 1999 – 2004*

Section	N	Min	Max	Mean	SD
Survival Rate to Grade 5, 1999	15	77	99	90.27	6.23
Survival Rate to Grade 5, 2004	13	53	100	88.08	14.2

**Figure 11. Survival Rates to Grade 5 in the Arab States, 1999 - 2004**



## Gender Parity Index

As an education indicator, Gender Parity Index (GPI) is used to measure equity of access to education between males and females. Calculation of GPI is based on the ratio of females GER to males' GER values. A GPI value of 1 indicates parity between the two groups; an index greater than 1 signifies an advantage for females while an index below one indicates a discrepancy in favor of males.

Table 16 shows small changes in gender disparities in pre-primary GERs between 1999<sup>20</sup> and 2005<sup>21</sup>. Overall, mean of ratio between the female and male GERs, which provides the GPI, decreased slightly from 0.96 to 0.95. Countries that reached parity (GPI=1) between the two genders are Algeria in 1999, and Libya, Iraq and Sudan in 2005.

In 1999, countries whose male attendance is more than female's in pre-primary education are Bahrain (0.95), Egypt (0.95), Iraq (0.98), Jordan (0.91), Lebanon (0.97), Libya (0.97), Morocco (0.52), Oman (0.88), Palestine (0.96), Qatar (0.97), Syria (0.9), Tunisia (0.95), UAE (0.97), and Yemen (0.86).

Similarly, in 2005, countries where males GERs are higher than females' in pre-primary education are Algeria (0.96), Bahrain (0.97), Egypt (0.94), Jordan (0.93), Lebanon (0.98), Morocco (0.65), Oman (0.94), Palestine (0.96), Qatar (0.96), Saudi Arabia (0.95), Syria (0.91), Tunisia (0.99), UAE (0.98), and Yemen (0.85). What is noted here is that for the two reported years, both Djibouti and Kuwait showed a higher GPI for females in pre-primary education where the GPI values were (1.5) and (1.06) for Djibouti, and (1.02) and (1.03) for Kuwait in 1999 and 2005, respectively.

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<sup>20</sup> Data is missing for Mauritania, Saudi Arabia, and Sudan.

<sup>21</sup> Data is missing only for Mauritania.

Table 16

*Gender Parity Index for Pre-primary Attendance, 1999-2005*

Section	N	Min	Max	Mean	SD
GPI for Pre-primary GER, 1999	17	.52	1.5	.96	.18
GPI for Pre-primary GER, 2005	19	.65	1.06	.95	.09

Note: GPI=Gender Parity Index

**Child Survival and Well-Being**

The under -5 mortality rate – the number of children per 1,000(%) live births who die before reaching age 5- is generally considered the most robust indicator of childhood survival. More specifically, this indicator “captures the accumulated impact of the quality of the birthing experience, neonatal care, disabilities, breastfeeding and vaccination, as well as the effects of gender discrimination, mal- or undernutrition and inadequate health care” (UNESCO, 2006a, p. 127). As Table 17 shows, in the Arab States, an average of 43.3 of every 1,000 children born in recent years will not reach age 5. There are, however, significant differences among the Arab countries : rates are highest in Mauritania (141 per 1000 children), Djibouti (125 per 1000 children), Sudan (107 per 1000 children), and Iraq (105 per 1000 children) and lowest in Bahrain, Jordan, Kuwait, Lebanon, Libya, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, and UAE (fewer than 30). Some countries have made great strides since 1990, reducing the under -5 mortality rate by almost, or more than, half. Among them are Egypt, Libya, and Syria (UNICEF, 2006b).

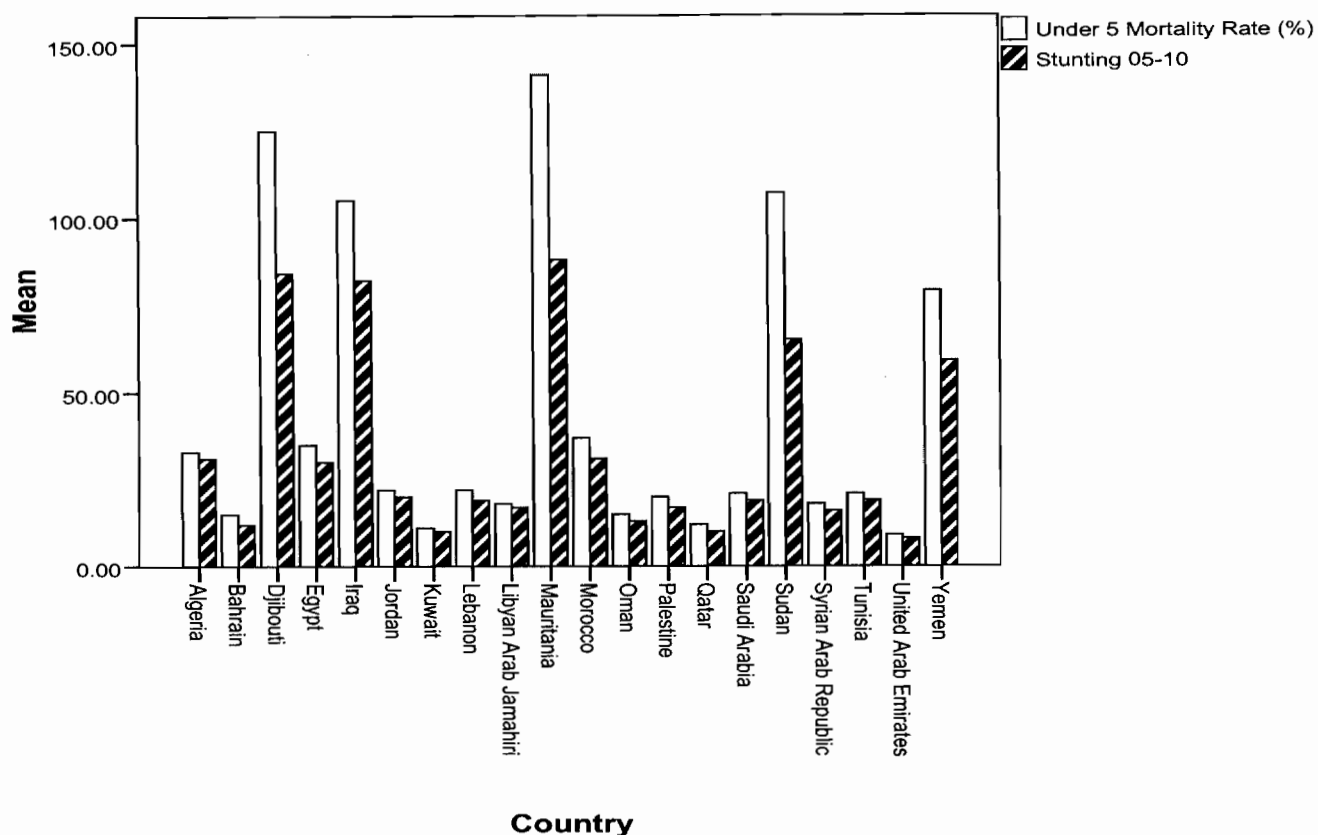
Another commonly used indicator to measure child-well being is stunting. Substantial evidence suggests that stunting and low birth weight is associated with long-term deficits in children's cognitive and motor skills that eventually impede future learning processes (Watanabe et. al., 2005). As Table 17 indicates, an average of 32.5 per 1000 children in the Arab States born in recent years will suffer from moderate to severe stunting. A noticed trend in many indicators, significant disparity is apparent among Arab countries: rates are highest in Mauritania (88 per 1000 children), Djibouti (84 per 1000 children), and Iraq (82 per 1000 children) and lowest (all measure per 1000 children) in UAE (8), Qatar (10), Kuwait (10), Bahrain (12), Oman (13), Syria (16), Palestine (17), and Libya (17). Figure 12 illustrates the child well-being indicators discussed in the Arab States projected in 2005 through 2010.

Table 17

*Child Well-Being Indicators, 2005-2010*

Section	N	Min	Max	Mean	SD
Under – 5 – Mortality Rate (%)	20	9	141	43.3	42.36
Stunting (%)	20	8	88	32.5	26.97

**Figure 12. Child Well-Being Indicators in the Arab States, 2005 - 2010**



### Poverty

In general, poverty is a principal source of disadvantage and it aggravates other types of vulnerability. Many studies have indicated that even in high-income countries, it is often the disadvantaged who would benefit most from ECCE programs but who have the least access to them (UNICEF, 2006a). As depicted in Table 18, between 1998 and 2005, there is a substantial increase of almost 22 % in the mean of Gross National Product (GNP) per capita per pupil in the Arab States. Hence, poverty is dominant as a region economic attribute, regardless of the several affluent Arab countries, especially in the Gulf area. Significant

differences are accounted among Arab countries: GNP values are highest in Kuwait (29,200) and lowest in Yemen (830), in 2005. Countries with no reported data are Bahrain, Iraq, Libya, Oman, Palestine, Qatar, and UAE. Figure 17 displays the GNP per capita per pupil values in 1998 and 2005.

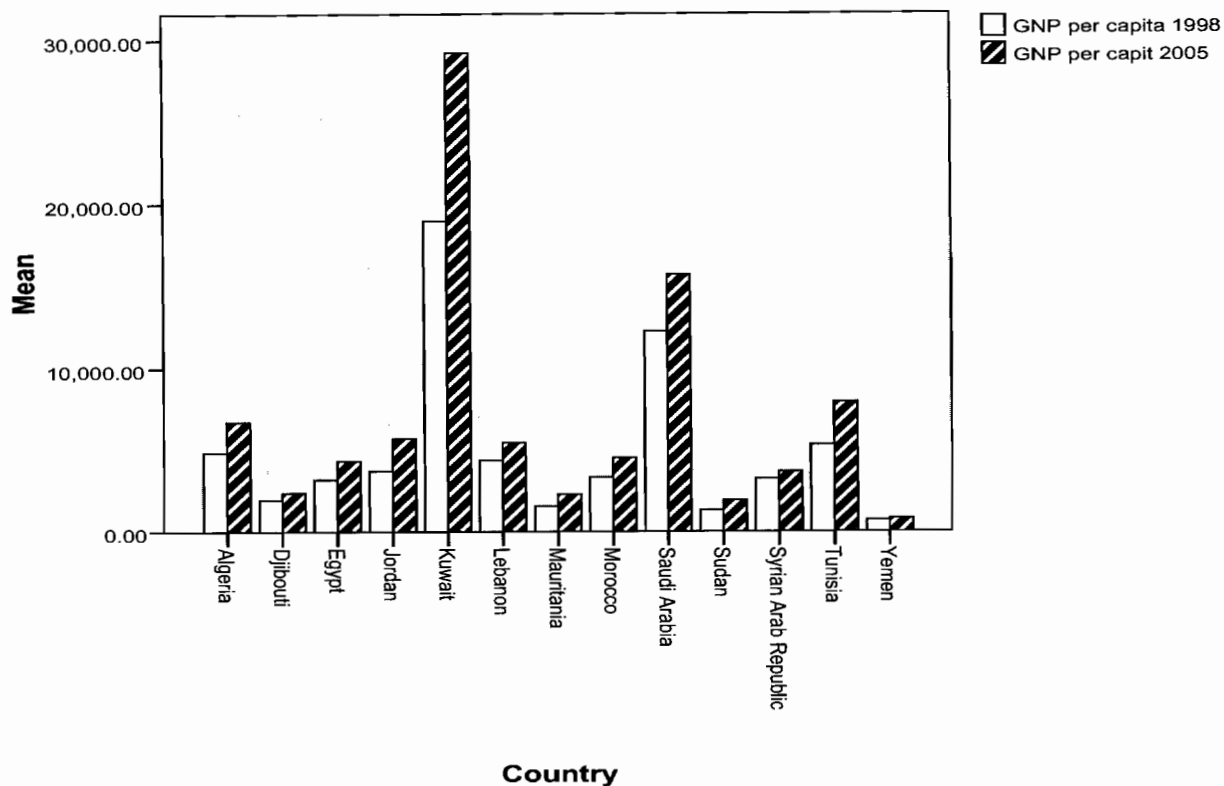
Table 18

*Gross National Product per Capita per Pupil, 1998 – 2005*

Section	N	Min	Max	Mean	SD
GNP per Capita per Pupil, 1998	16	710	20820	6956.25	6468.2
GNP per Capita Per Pupil, 2005	13	830	29200	6978.46	7666.89

Note: GNP=Gross National Product

**Figure 13. Gross National Product per Capita per Pupil, 1998 - 2005**



### Research Questions, Findings, and Discussions

The preceding analysis of selected ECCE indicators in the Arab states will direct us through the process of examining the overarching research question of this study: Where do the Arab States stand with respect to quality, equity, and access of ECCE? It should be noted that in order to significantly answer this question, the relationships between selected ECCE indicators are examined and presented through multiple research questions, as outlined previously in chapter III. Substantive areas to be analyzed include early childhood education policy, gross enrollment ratios in pre-primary education, survival rates in primary education, gender parity, child-well being, education finance, and teaching staff.

Notwithstanding, the paucity of data on early childhood in key areas such as participation, financial and human resources and educational context in several Arab countries limit the likelihood of attaining reliable findings. Additionally, inconsistency in reporting data due to social, cultural and political reasons poses another challenging limitation to this study.

The following section will employ the results of data analysis of selected ECCE indicators to answer each of the following research questions. More figures and tables are provided to further explain and discuss the findings.

### *Research Question 1: ECCE Policy*

1. What are the main areas and levels of *ECCE policy* regulations and implementation in the Arab states? (a) What are the legislative policies that have been developed to promote compulsory pre-primary education?

In all Arab states, the reported starting age for compulsory education is six years old, the first year of primary education. Hence, no legislations for compulsory pre-primary education were ever developed (UNESCO, 2006a). Nevertheless, other legislations for ECCE services were initiated. Table 19 reports legislations related to early childhood care and education in selected Arab countries.

With some variations, each of the Arab countries has established a higher council or national task force for childhood and family. The task of these councils is to prepare and monitor national plans and coordinate among the governmental and non-governmental systems/agencies that have specialties relevant to childhood. Moreover, emphasis by these councils is placed on developing legislation concerning children: ensuring realization of their full rights, and enacting a law or code for children. However, the countries are at different

stages in development of national policies. For example, Jordan is amongst the first countries in the region to have designed a comprehensive early childhood development (ECD) strategy and plan of action (UNICEF, 2000a). It was initiated in 2001 with the development of the National Council for Family Affairs (NCFA), which was followed in 2004 by the adoption of the National Plan of Action for Children (NPA). According to Faour and his colleagues (2006), “the ECD strategy focuses on legislation related to children, curricula and programs, caring for children in nurseries, preschool and basic education in the first three years. It also addresses children with special needs. Included in the strategy are health care for women during pregnancy, health care services, and child culture as well as the role of family and local community” (p. 24). Overall, the strategy of executing these initiatives aimed at: (a) Making Jordanian aware of the child’s legal rights, especially in the early childhood stage; (b) Providing a legal framework for protecting the child’s legal rights by amending existing legislations and adding new laws that comply with the international agreements; and (c) Developing legal procedures for security and judicial authorities, and establishing new mechanisms such as a family court and a “Mediator” system (UNICEF, 2000b).

Accordingly, multiple legislations were initiated by the ministry of education (MOE) and to govern ECCE and general education policies. For example, Act number 3 states that education is compulsory for all children (girls and boys) for the 10 years stretching from primary education to the first cycle of secondary, and the first year of the second cycle. It included classification of educational cycles into: kindergarten cycle (2-year program); basic education (10-year program); and secondary education (2-year program), consisting of comprehensive secondary education (academic and vocational) and applied secondary education (Faour et al., 2006).



More recently in Jordan, the World Bank and other donor agencies are funding the Education Reform for the Knowledge Economy (ERfKE, 2003/08) “to revamp the education sector starting from early childhood in the framework of lifelong learning with a view to increasing Jordan’s competitiveness in the knowledge economy” (UNESCO, 2007b, p.2). Promoting learning readiness through early childhood education is one of the four components of ERfKE emphasizing on expanding free kindergarten education and providing training for teachers, administrators and parents.

On the other hand, in Sudan, the National Council for Child Welfare (NCCW), established in 1991, is working on expanding access to ECCE to 35% by the year 2007 and to 100% by the year 2015 (UNESCO, 2004c). According to the Council of Ministers Resolution No. 1799 of 19990, pre-school stage is to become an integral part of formal education system. Additionally, Child Law 2003 (Articles 38 to 47) specifies regulations for setting up day care centers and kindergartens. Table 19 outlines similar ECCE and other education legislations associated in different Arab countries.

Table 19

*Legislations Related to ECCE in Selected Arab Countries*

<b>Country</b>	<b>Legislation</b>	<b>Purpose</b>
<b>Jordan</b>	MOE legislation (No. 3) 1994	The Act states that education is compulsory for all children (girls and boys) for the ten years stretching from primary education to the first cycle of secondary, and the first year of the second cycle. It included classification of educational cycles into: kindergarten cycle (two-year program); basic education (ten-year program); and secondary education (two-year program), consisting of comprehensive secondary education (academic and vocational) and applied secondary education

Country	Legislation	Purpose
	Act for the Handicapped No.23, 1993	Emphasized the right of all categories of students to equal opportunities in education in a way that meets their special needs and abilities. The Ministry of Education started to apply the 'resource room program' in the mid 1990s to provide supportive and enrichment services to students with special needs. The 200 resource rooms available benefited 2,400 students in the scholastic year 1999-2000.
<b>Lebanon</b>	No. 36, 1995	Classification of disabilities and the issuance of a personal card for the disabled to obtain health care with full coverage by the MOPH and other government institutions.
	No.96/536, 1996	Lifted the minimum age for working children from 8 to 13 completed years and widened protection related to conditions of employment and labor.
	No. 10227/97, 1997	New Education system with a curriculum for preschools that is used by the public sector.
	No-686, 1998	Amended the Decree 134/59, Section 49 of the year 1959 from "Free elementary education for all Lebanese children" to " <b>Compulsory</b> free elementary education for all Lebanese
	No. 220, May 29, 2000	Formation of the National committee for People with Special Needs.
	No. 4145, 2000	Increased government contribution to semi private schools for each student.
	No. 344, 2001	New teachers hired must have a university degree (educational degree) for all grade levels.
	No. 5684 & 3801, 2001 No. 9091, 2002	Space specifications for public school buildings, facilities and classrooms with disability.
	No-8970, Oct 30, 2002	KGs are two years in duration and entrance age is 4.
	No. 47, Sept 18, 2003	Exempt public school children in KGs and grades one and two from school fees.
No- 12268 ,2004	New regulations concerning the criteria for opening a private day care center	
<b>Sudan</b>	Council of Ministers Resolution No. 1799 of 1990	The pre-school stage has become an integral part of the formal education system.
	General Education Organization Act of 1992	General education objectives, examination regulations, educational policies and general administration. According to this Act, approved curricula must be applied nationwide; Arabic is the language of instruction and religious education is compulsory.

	MOE 1999	Basic Education is compulsory and lasts 8 years
	General Education Planning Act of 2000	Abrogated the General Education Organization Act of 1992 and in Chapter Three stated that each Sudanese child at the age of 6 had the right to basic education It also specified the general education cycles, which were 5 in number: - <ol style="list-style-type: none"> <li>1. Pre-school education for the age group (4-5)</li> <li>2. Basic Education which lasts 8 years (6-13)</li> <li>3. Adolescent and Adult Education and Private/Special Education</li> <li>4. Secondary Education for the age group (14-16)</li> <li>5. Informal Education- Educating Adolescent in the context of their local Environment project.</li> </ol>
	Child Law 2003	Specified regulations for setting up day care centers and kindergartens. Articles 38 to 47 deal with the following: <ul style="list-style-type: none"> <li>•The right to general education.</li> <li>•Aims and objectives of education in the three levels of general education.</li> </ul> The abolition of corporal punishment and all forms of offending treatments in schools. <ul style="list-style-type: none"> <li>•To single out a day for statistical data collection pertaining to education.</li> </ul>
<b>Syria</b>	Law No. 35 Compulsory Education, endorsed by the People's Assembly Aug 12, 1981	Stipulates the age (6 years) at which children are obligated to enter primary school (six-year program), the competent enforcement authorities, and the sanctions imposed on families failing to send their children to school. This law also provides for incentives to be granted to both children.
	Decision No. 967, March 12, 1997	Issued by the Regional Leadership of the Baath Socialist Party determines that the training of teachers and teacher assistants will be provided in faculties of education instead of teacher-training institutes
	Legislative Decree No. /290/ of 1997	Establish three faculties for Education in Aleppo University, Tishreen University in Latakia, and Al Ba'ath University in Homs in addition to Damascus University. By virtue of Decree No. /61/ of 1999, these four faculties were assigned to prepare and graduate educational recruits for all stages of education including the elementary stage and kindergartens.
	No. 2640/543 (3/4) 2001	Special Education- set admission guidelines for light cases of special needs into the official education. The law requires that school buildings

		are made accessible to physically handicapped people. A new code is in process for new and existing buildings.
	Law No.32, April 7, 2002	Basic education from grade 1 to grade 9 and education is free and compulsory. Grades 1-4 should have a home room teacher who must hold a college degree in education.
	No. 55 date 2004	Specified criteria for KGs- adult/child ratio, fees, insurance
<b>Morocco</b>	Law No. 05, 2000 / Private Education Law	Preschool education is the stage of education provided by schools open to children from 4 to 5 years old.

Source: ECCE Country Profiles; 2007 EFA Global Monitoring Report; (Faour et. al., 2006)

b) Does ECCE governance influence the quality, access and equity of ECCE?

There are variations at the different levels of governments – the allocation of responsibility within and across levels of government and between public and non-public actors- that determine whether ECCE services are provided equitably. To that end, in the Arab States, a mix of public and private provision in pre-primary education is influenced by a host of structural and contextual factors, notably, the degree of urbanization, female economic activity rate, percentage of children under 5, and preschool entry age.

Consequently, given the continued dominance of the private sector in most Arab countries, middle to high income families continue to benefit more from such services than low income families or those who live in rural areas. Hence, the nature of ECCE financing can create barriers to expansion and increasing access. Accordingly, ECCE programs in the Arab States region come under different sponsorships where, in many cases, ministries have also established guidelines for registration, licensing and accreditation. Table 20 illustrates different types of ECCE programs and services and how they are provided.

Table 20

*Provisions for the Type of ECCE Programs in Selected Arab States<sup>22</sup>*

Country <sup>23</sup>	Type of Program	Age of Children Served	Ministerial Auspices	Role of Each Ministry
<b>Bahrain</b>	Nursery	0-3	Director of Private Education	As private sectors, each follows its set of curricula material
	Kindergarten	3-5	MOE	Sets the criteria for curriculum
<b>Egypt</b>	Nursery	2-3	MOE, MISA, MOH	Monitors the provision of ECED and submits evaluation reports to Governor of education.
	Kindergarten	4-6		
<b>Jordan</b>	Day Care	0-4	MOSD, MOH	Sets the criteria for opening day care centers
	Kindergarten	4-6	MOE,	Has a special unit for early childhood education where it provides licensing, teacher training, and curriculum improvement, supervision of public and private kindergartens in rural areas but there are no curricula for day care centers.
<b>Kuwait</b>	Kindergarten	4-6	MOE	Establishes curriculum
<b>Lebanon</b>	Day Care/ Nursery	0-3	MOSA Public day cares MOPH Private day cares	Sets the criteria for opening day care centers
	Preschool/ Kindergarten	3-6	MOE- Public serves ages 4-6 MOE –Private serves ages 3-6	Establishes curriculum Provides supervision for public schools
<b>Morocco</b>	Preschool	4-6	MEN	Administers and inspects preschools pedagogically
<b>Oman</b>	Nursery/ Kindergarten	4-6	MOE/private sectors	No available data
<b>Palestine</b>	Preschool/ Kindergarten	4-6	MOSA/ private sector	Oversees nurseries, registers and licenses them. It also sets forth the health, environmental and public safety measures prior to granting licenses

<sup>22</sup> Source: UNESCO 2007<sup>23</sup> Arab Countries with no data about ECCE provision include Algeria, Djibouti, Iraq, Libya, Mauritania, and Saudi Arabia

Country <sup>24</sup>	Type of Program	Age of Children Served	Ministerial Auspices	Role of Each Ministry
<b>Qatar</b>	Preschool/ kindergarten	4-6	MOE/ private sector	Establishes curriculum and model of KG equipped with all facilities and technologies.
<b>Sudan</b>	No available data	0-4	MOSWD, MOH	No available data
	Kindergarten/ <i>khalwas</i>	4-6	MOE	Only provides licensing. Established KGs in its own schools in 1992 Has a unit for ECCE and has set up policies, planned curricula, and established an information base, teacher training, and awareness programs. There are supervisors who visit each kindergarten twice a month.
<b>Syria</b>	Day Care	0-3	MOSAL, MOH	Sets the criteria for opening day care centers.
	Kindergartens	3-6	MOE	Licensing and registration
<b>Tunisia</b>	Preschool / kindergartens / Kouttab	3-6	MOET Ministry of Youth, Childhood and Sport	Monitor preschool education and the training of all those who supervise work with children and young people or with physical education and sports.
<b>UAE</b>	Kindergarten	3-6	MOE / private sector	Responsible for the provision of educational services for ECCD
<b>Yemen</b>	Kindergarten	3-6	MOE/ private sector	Manage and supervise pre-primary education

c) How does pre-primary education finance in particular and education finance in general, impact ECCE provision in the Arab States? Data on expenditures on early childhood education is almost non-existent in the Arab countries under discussion. Available data refer broadly to education with no allocation for the pre-primary stage (UNESCO, 2007a). That is why, in order to answer this question, a correlation is performed to examine if a relationship existed between total education expenditure and pre-primary GER in the Arab States. As

<sup>24</sup> Arab Countries with no data about ECCE provision include Algeria, Djibouti, Iraq, Libya, Mauritania, and Saudi Arabia

shown in Table 21, there is no statistically significant relationship between total education expenditure and pre-primary education GER ( $r=-0.38$ ,  $p=0.311$ ,  $N=9$ ). A negative moderate relationship exists between pre-primary GER and total public education expenditures. Unfortunately, the limited data about education finance and expenditure lowered the chances of examining its influence on pre-primary GER in the Arab states. Notwithstanding, one explanation of this negative relationship is the small value of N used ( $N=9$ ). Figure 14 illustrates the distribution of pre-primary GER [  $M=26.16$ ;  $SD= 24.388$ ;  $N=20$ ] and Figure 15 illustrates the distribution of total public education expenditure [  $M=4.855$ ;  $SD=2.276$ ;  $N=9$ ] in the Arab states in 2005.

Table 21

*Correlation between GER of Pre-primary Education and Public Education Expenditure, 2005*

Section	$r$	$p(t\text{-tailed})$	$N$
Total Public Expenditure	-0.38	0.311	9

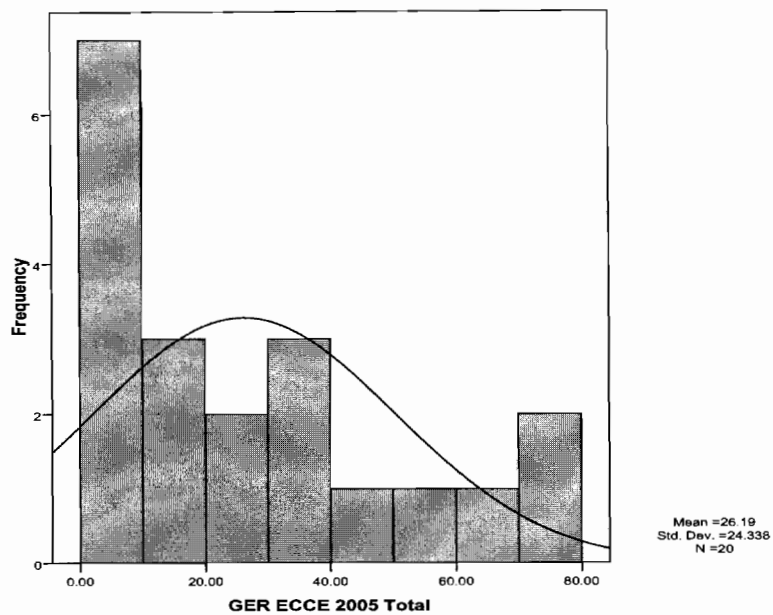


Figure 14. Distribution of Pre-primary GER in the Arab States, 2005

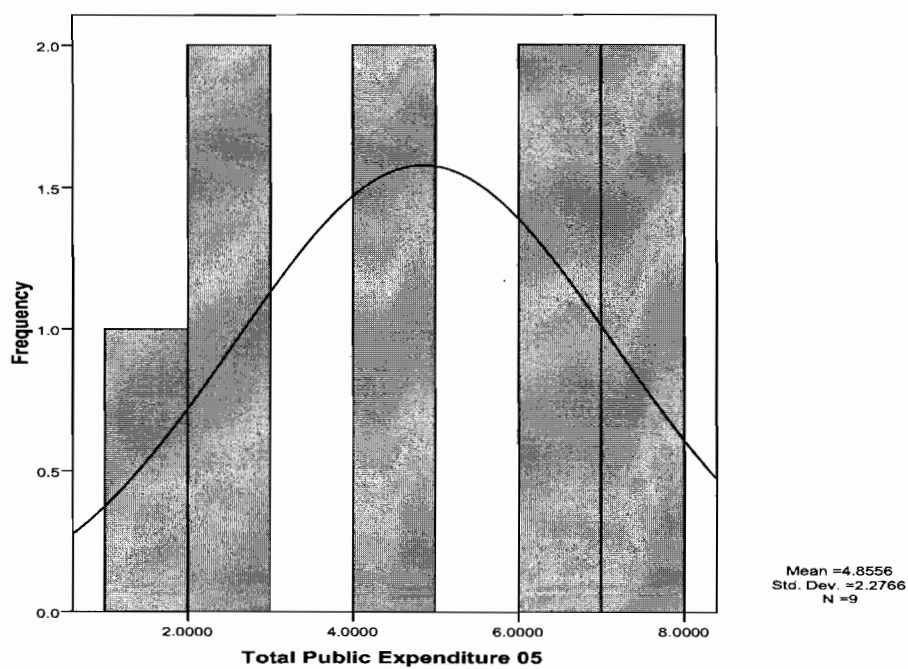


Figure 15. Distribution of public education expenditure in the Arab States, 2005



### *Research Question 2: Child Well-Being*

What are the relationships between *child well-being* conditions and equitable access of ECCE?

To answer this question correlations are performed between under – 5 mortality rates, stunting levels and pre-primary GER in the Arab States. As Table 22 shows, a moderate but negative statistically significant correlation ( $r=-0.49$ ,  $p=0.028$ ,  $N=20$ ) is apparent between under-5-mortality rates and pre-primary gross enrollment ratios. This negative relationship indicates that as under-5-mortality rates decrease, pre-primary GER values increase. In a similar fashion, a moderate but negative statistically significant correlation ( $r=-0.53$ ,  $p=0.017$ ,  $N=20$ ) is evident between stunting levels and pre-primary GER values in the Arab States. This negative relationship indicates that as stunting levels decrease pre-primary GERs increase. Notably, another strong and positive statistically significant correlation ( $r=0.989$ ,  $p=0.000$ ,  $N=20$ ) between under-5- mortality rates and stunting levels indicate that as one condition decreases the other decreases, and vice versa. Figures 16 and 17 illustrate the distributions of both under- 5- mortality rates and stunting levels in the Arab States, projected between 2005 and 2010. [Under -5-mortality rates:  $M=43.3$ ;  $SD=42.36$ ;  $N=20$ ] and [Stunting levels:  $M=32.5$ ;  $SD= 26.97$ ;  $N=2$ ]

Table 22

*Correlations between Under-5-mortality Rates, Stunting Levels, and Pre-primary GERs in the Arab States, 2005.*

Section	r	p (t-tailed)	N
GER ECCE vs. Under 5 Mortality Rate	-0.49*	0.028	20
GER ECCE vs. Stunting levels	-0.53*	0.017	20
Under 5 Mortality Rate vs. Stunting levels	0.989**	0.000	20

Note: \* Correlation is significant at  $p < 0.05$

\*\* Correlation is significant at  $p < 0.01$

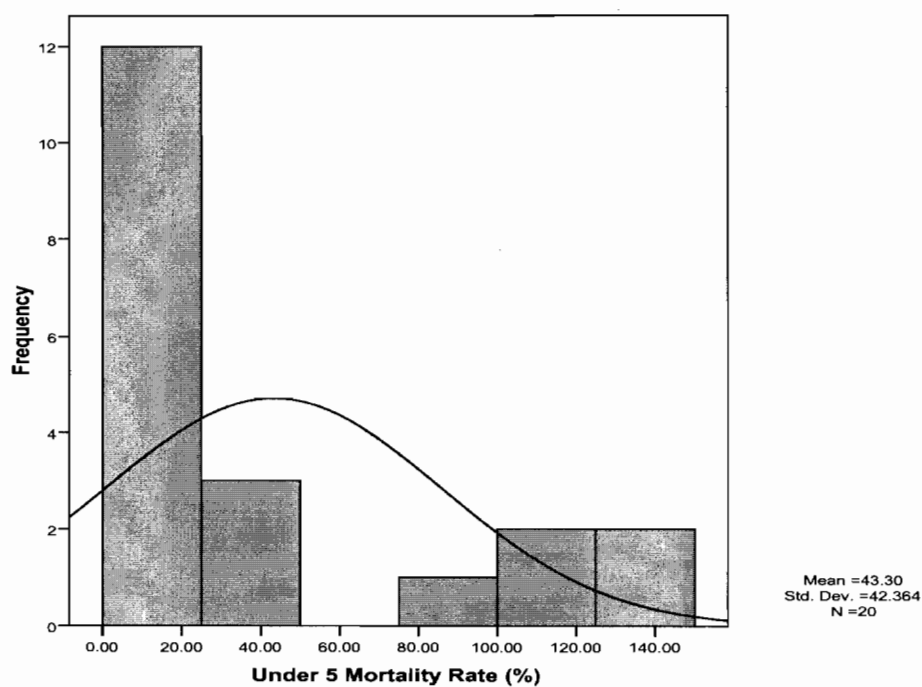
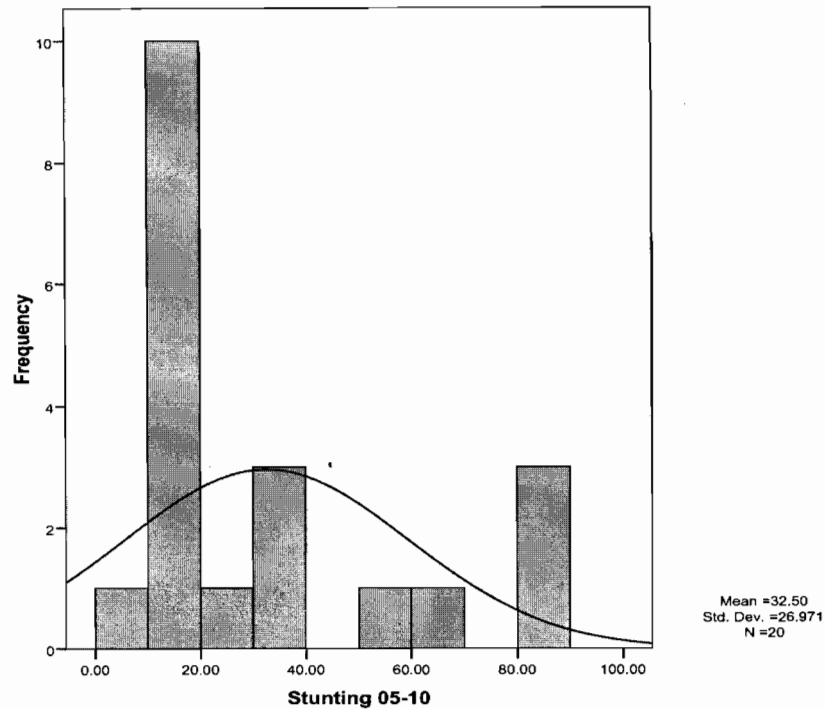


Figure 16. Distribution of Under- 5- Mortality Rates in the Arab States, 2005-2010



*Figure 17.* Distribution of Stunting Levels of Under- 5 - Children in the Arab States, 2005-2010

(a) How does poverty impact ECCE provision?

To answer this question, a correlation is performed to examine the impact if any, of GNP per capita per pupil levels on ECCE provision in the Arab States. As Table 23 shows, a moderate and positive significant correlation is accounted for ( $r=0.572$ ,  $p<0.021$ ,  $N=16$ ). This positive relationship indicates that as the GNP per capita per pupil increases, pre-primary GER increases; hence access to ECCE programs will be manifested more in the Arab States when additional gross national funding per pupil is allocated. Figure 18 illustrates the distribution of the GNP per capita per pupil values [ $M=8576.88$ ;  $SD=7866.2$ ;  $N=16$ ].

Table 23

*Correlation between GNP per Capita per Pupil and Pre-primary GER, 2005*

Section	r	p(2-tailed)	N
GNP per capita per pupil	0.572*	0.021	16

Note: \* Correlation is significant at the 0.05 level (2-tailed).

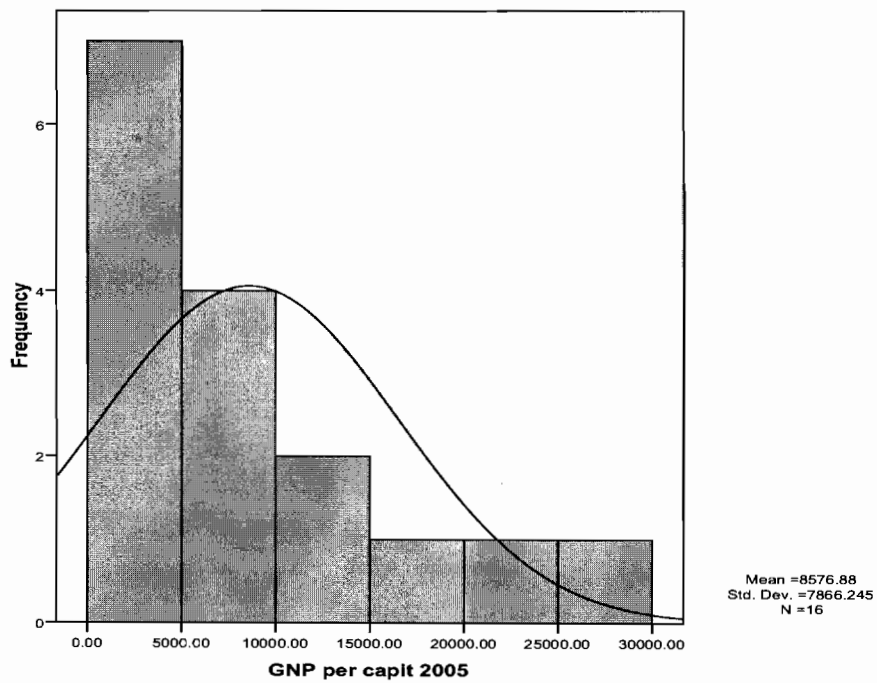


Figure 18. Distribution of GNP per Capita per Pupil in the Arab States, 2005

(b) Is there a relationship between poverty levels and quality ECCE?

In order to answer this question, a multiple regression would have been performed on the data; however, due to the limited data, especially the number of trained pre-primary teachers (N=9), the multiple regressions could not be run. Accordingly, Pearson's correlations are performed between GNP per capita per pupil and the ECCE quality indicators: pre-primary teaching staff, trained teachers, and pupil teacher ratio (PTR). As shown in Table 24, there was little, if any, correlation between GNP per capita per pupil and total pre-primary teaching staff and trained staff, respectively. There exists a negative relationship between GNP per capita per pupil and total pre-primary teaching staff, and a positive one with trained staff; however, both of these relationships were not found to be statistically significant with a  $p$  value of .456 (N=15) with pre-primary staff and a  $p$  value of .674 (N=9) with trained staff, respectively. Similarly, there was a moderate correlation between GNP per capita per pupil and PTR with  $r=-.351$  (N=15). There exists a negative relationship between GNP per capita per pupil and PTR; however, this relationship is not statistically significant with a  $p$  value of 0.2. Nevertheless, the negative relationship indicates that as GNP per capita per pupil increases the PTR decreases, and hence quality ECCE is provided. It should be noted that lack of enough data contributes to the validity of these results when analyzing relationships.

Figure 19 illustrates the distribution of pre-primary teaching staff in the Arab States [M=7.01; SD=9.9; N=19]. Similarly, Figures 20 and 21 illustrate the distributions of trained teachers (%) and pupil teacher ratio as follows, [M=76.09; SD=35.76; N=11] and [M=18.74; SD=5.39; N=19], respectively.

Table 24

*Correlations between GNP per Capita per Pupil and ECCE Quality Indicators.*

Section	r	p (2-tailed)	N
Teaching Staff	-0.209	0.456	15
Trained Staff	0.164	0.674	9
Pupil Teacher Ratio	-0.351	0.2	15

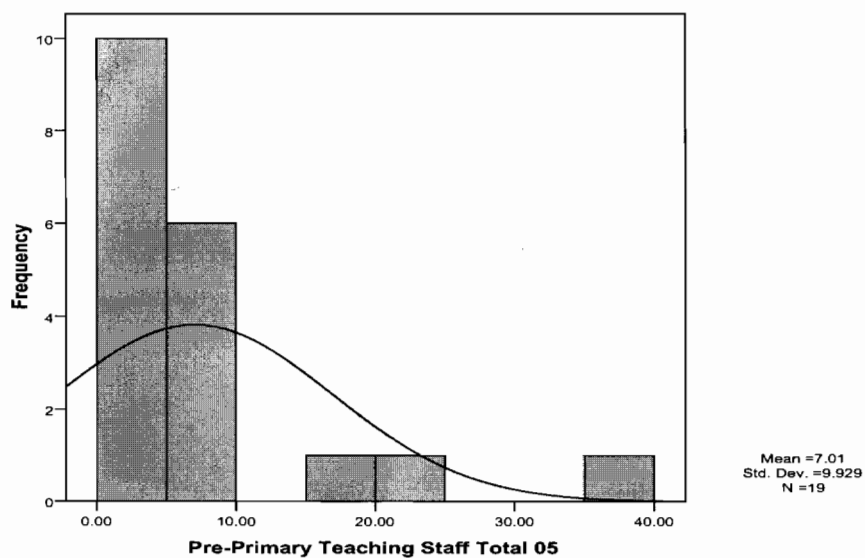


Figure 19. Distribution of Pre-primary Teaching Staff in the Arab States, 2005

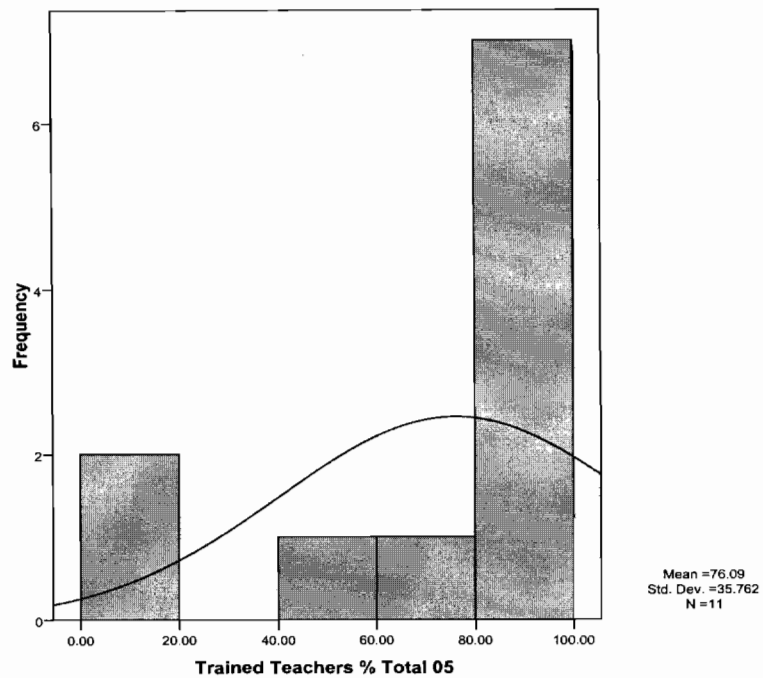


Figure 20. Distribution of Pre-primary Trained Staff in the Arab States, 2005

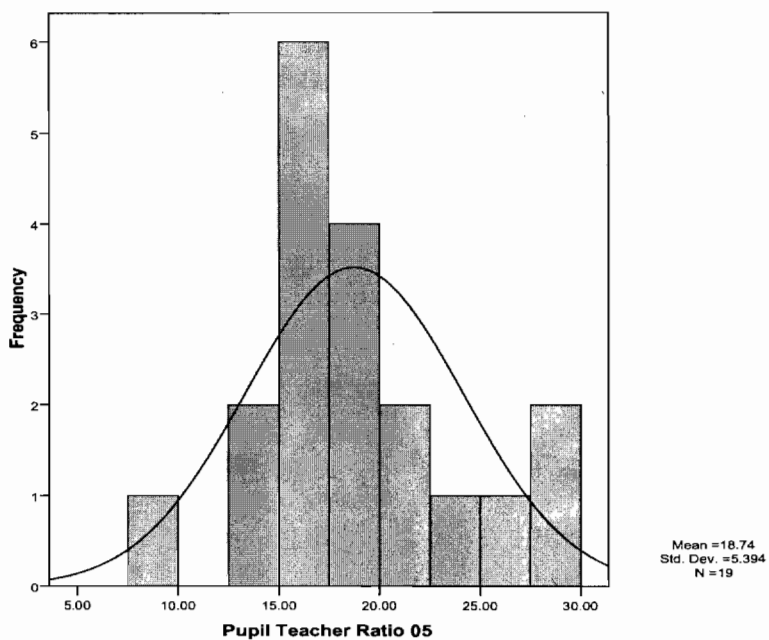


Figure 21. Distribution of Pre-primary Pupil Teacher Ratio, 2005

### *Research Question 3: Gender Disparity*

What is the relationship, if any, between *gender disparity* in pre-primary education on quality ECCE?

In order to answer this question, it must be determined what type of relationship, if any, exists between gender disparities in pre-primary education and any of the three quality ECCE indicators: pre-primary teaching staff, trained staff (%), and pupil teacher ratio (PTR) in pre-primary education. As Table 25 shows, the results of the correlations indicate that there is only a statistically significant correlation between the gender parity index (GPI) in pre-primary education and total number of pre-primary teaching staff with  $r=-.691$  and a  $p$  value of  $.002$  ( $N=18$ ). There exists a negative correlation between GPI and total number of teaching staff. Hence, the lower the GPI the higher the number of teaching staff in pre-primary education. As mentioned earlier, a GPI below 1 indicates a disparity in enrollment in favor of male students.

There was little, if any, correlation between GPI and both the percentage of trained staff and PTR with an  $r=-.067$  and  $r=-.051$ , respectively. Additionally, there exists a negative relationship between GPI and each of the percentage of trained staff and PTR; however, both relationships were found to be not statistically significant with  $p$  values of  $.853$  and  $.84$ , respectively. Again, the lower the GPI values the higher the percentage of trained staff and PTR.



Table 25

*Correlations between Gender Disparity in Pre-primary GER and Quality ECCE Indicators, 2005*

Section	r	p (2-tailed)	N
Teaching Staff	-.691**	.002	18
Trained Staff	-.067	.853	10
Pupil Teacher Ratio	-.051	.84	18

Note: \*\* Correlation is significant at the 0.01 level (2-tailed)

(a) Does gender disparity in pre-primary education influence gender disparity in primary education?

In order to examine the relationship, if any, between gender disparity in pre-primary education and gender disparity in primary education, a Pearson's correlation has been performed on the available data. As Table 26 shows, there is a low correlation between GPI in pre-primary education and GPI in primary education with an  $r=.18$ . There is a positive relationship between pre-primary GPI and primary GPI. Even though, this relationship is not statistically significant with a  $p$  value of .46 ( $N=19$ ), the low positive correlation might imply that gender parity at both stages of education is at analogous levels.

Table 26

*Correlations between Gender Disparity in Pre-primary GER and Gender Disparity in Primary Education, 2005*

Section	r	p (2-tailed)	N
Gender Disparity in Primary Education	.18	.46	19

(b) Does enrollment of students with ECCE experience in 1<sup>st</sup> grade correlate with gender disparity in pre-primary education?

As shown in Table 27, there is a positively moderate correlation between pre-primary GPI and new entrants to first grade who had experience in early childhood programs with  $r=.577$ ,  $N=8$ . On a similar vein, even though this relationship was not found statistically significant with a  $p$  value of .135, with gender parity at the pre-primary education level, children are more likely to enroll in primary education.

Table 27

*Correlations between Gender Disparity in Pre-primary GER and New Entrants to 1<sup>st</sup> Grade with ECCE Experience, 2005*

Section	r	p (2-tailed)	N
New Entrants to 1 <sup>st</sup> Grade with ECCE experience	.577	.135	8

#### *Research Question 4: ECCE and Primary Education*

What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and *primary education*? (a) How does pre-primary education impact primary education?

In order to answer this question, a multiple regression would have been performed on the data; however, due to limited and missing data, especially with the enrollment of new entrants to first grade with ECCE experience, the multiple regressions could not be run. Instead, Pearson's correlations were used to determine the impact of ECCE program participation on education at the primary level. Five primary education indicators were used in these correlations: primary education GIR, NIR, GER, NER, and new entrants to first grade with some kind of ECCE experience. There were low correlations, if any, between pre-primary GER and: (a) primary GIR with  $r=.059$ ,  $N=19$ ; (b) primary NIR with  $r=.073$ ,  $N=16$ ; (c) primary GER with  $r=.173$ ,  $N=20$ ; and (d) primary NER with  $r=.2$ ,  $N=17$ . All four relationships were positive; however, none was found to be statistically significant [GIR  $p=.811$ ; NIR  $p=.788$ ; GER  $p=.467$ ; and NER  $p=.2$ ]. Notably, the correlation between pre-primary GER and new entrants to first grade with ECCE experience was found statistically significant with a  $p$  value of 0.00. There was a strong positive correlation between pre-primary GER and new entrants to first grade with ECCE experience with an  $r=.935$ . As children are exposed to ECCE experiences, chances are more of their enrollment in primary education.

Table 28

*Correlations between Pre-primary Education GER and Primary Education Enrollment Indicators, 2005*

Section	$r$	$p$ (2-tailed)	$N$
Primary Education GIR	.059	.811	19
Primary Education NIR	.073	.788	16
Primary Education GER	.173	.467	20
Primary Education NER	.327	.2	17
New Entrants to 1 <sup>st</sup> Grade with ECCE Experience	.935**	.000	9

Note: \*\* Correlation is significant at the 0.01 level (2-tailed)

(b) Does pre-primary education influence the internal efficiency of primary education measured by rates of dropout in grade 1 and survival to grade 5?

To examine the predicted relationship between pre-primary education and internal efficiency of education at the primary level, Pearson's correlations are performed on the available data. As Table 29 shows, there are little, if any, correlations between pre-primary GER and both drop out rates in grade 1 ( $r=-.202$ ) and survival rates to grade 5 ( $r=.363$ ). There is a negative relationship between pre-primary GER and drop out rates in first grade and a positive relationship between pre-primary GER and survival rate to grade 5. Nevertheless, both relationships were not found statistically significant.

Table 29

*Correlations between Pre-primary Education GER, Drop Out Rates in Grade 1 and Survival Rates to Grade 5, 2004*

Section	r	p (2-tailed)	N
Drop Out Rate in Grade 1	-.202	.489	14
Survival Rate to Grade 5	.363	.184	15

(c) What is the predictive strength of quality ECCE on primary education?

In a similar fashion, to examine the predicted relationship between quality ECCE and primary education, a Pearson correlation is performed between pupil teacher ratio (PTR) at the pre-primary level and GER of new entrants to first grade with ECCE experience. As shown in Table 30, this correlation is moderately negative with an  $r = -.69$ . This relationship was found to be statistically significant with a  $p$  value of .039. The smaller the PTR in pre-primary education the more likely is to have a higher GER of new entrants to first grade with ECCE experience.

Table 30

*Correlation between Pre-primary Pupil Teacher Ratio and GER of New Entrants of 1<sup>st</sup> Grade with ECCE Experience*

Section	$r$	$p$ (2-tailed)	$N$
New Entrants to 1 <sup>st</sup> Grade with ECCE Experience	-.69*	.039	9

Note: \* Correlation is significant at the 0.05 level (2-tailed)

#### *Research Question 5: Overall Progress to EFA Goal 1*

How does the *ECCE provision* in the Arab states compare to other developing countries, measured by progress towards *EFA goal 1*?

As mentioned in chapter I, Education for All (EFA) first goal calls for “expanding and improving early childhood care and education, especially for the most vulnerable and disadvantaged children” (UNESCO, 2006b). In all global monitoring reports, pre-primary GER is used as the indicator to measure overall progress towards EFA goal 1 at both regional and world levels. In order to relatively examine the overall progress of the Arab region towards EFA goal 1, descriptive data were used to compare the Arab’s region progress towards EFA goal 1 with the other developing countries and the world levels, respectively. Table 31 reports the means of pre-primary GER values, for countries with reporting data, in the three territories examined: the Arab region, developing countries, and the world. This Table identifies the world (N=175) as having the highest degrees of progress

towards EFA goal 1 with a GER absolute mean of 54.8 and SD of 35.9. The developing countries (N=128) are the second highest in progress towards EFA goal 1 with a GER absolute mean of 46.7 and SD of 35. Conversely, the Arab region (N=20) demonstrated the lowest mean of 26.2 and a SD of 24.3. These results, based on mean values, indicate that the higher the GER mean, the greater is the overall progress achieved towards early childhood education and care.

Table 31

*Absolute Means of Pre-primary GERs in the Arab Region, Developing Countries and the World, 2005.*

Region	GOAL 1 GER IN PRE-PRIMARY EDUCATION %		
	<i>N</i>	<i>M</i>	<i>SD</i>
Arab Region	20	26.2	24.3
Developing Countries	128	46.7	35
World	175	54.8	35.9

*Note:* N= number of countries reporting data

### Summary

The selected education indicators and the Arab country profiles were analyzed by examining the available data from 2007 and 2008 UNESCO's Annexes. Next, the five research questions that were posed as a basis of the study were answered here using Pearson's correlations and frequencies. The limited number of Arab countries reporting their data for multiple education indicators lowered the amount of confidence on the results on the descriptive means. However, the results of the correlations, in most cases, do shed a light on the relationships between the perceived education indicators and the equity, quality, and access of ECCE programs in the Arab countries. The following chapter will highlight the key findings. In addition, recommendations will be presented on how ECCE may be enhanced and equitably accessed to all children, especially the disadvantaged, by formulating policies and legislations that govern all aspects of early childhood in general, and education in particular. It is hopeful that these recommendations will assist policymakers in improving ECCE programs in the Arab countries. Also, ideas and recommendations to future early childhood studies and research initiatives will be suggested to improve on this study.



## Chapter V

### Summary of Findings, Conclusions, and Recommendations

The purpose of this study was to examine the factors that play a role in the slow provision of early childhood care and education programs in the Arab States, compared to other regions in the world. From a political and economic standpoint, this study focused on explicating the relationships among governmental policy variables, economic conditions and the provision of quality ECCE. Socially and culturally, this study investigated the relationships between social and equity variables and levels of teacher readiness, as significant predictors of quality ECCE programs in the Arab States.

The data used in this study was obtained from the 2007 and 2008 statistical annexes from UNESCO's EFA Global Monitoring Reports. A selected set of core health and education indicators were examined and analyzed in conjunction with the research questions that guided this study. These indicators can be categorized into six areas: (a) enrollment; (b) expenditures; (c) teaching staff; (d) efficiency and quality; (e) equity and access; and (f) child well-being.

Chapter I presented the problem to be studied and its place in the current international educational context. Chapter II contained a review of the related literature which focused on a number of key areas: (a) early childhood education as a human right; (b) the changing perspectives of early childhood care and education in terms of theory, research, and policy; (c) economic and social factors related to ECCE growth; (d) a discussion of what promotes quality ECCE; (e) the benefits of early childhood development especially for the disadvantaged; and (f) the challenges and opportunities of ECCE in the Arab region. In addition, the literature review examined how governments and ECCE policies impact both

the prevalence and development of ECCE programs, especially for the most disadvantaged children. Chapter III described the methodology used in this study to collect and analyze the data to determine the factors that slow down the provision of ECCE in the Arab region. Chapter IV presented an analysis of the selected data. The analytic strategy employed in this study was a descriptive approach aimed at discovering existing relationships between the selected health and education indicators. Several methods were used in analyzing, synthesizing, summarizing, and reporting the data. Tables and figures identifying the correlations, means, and distributions were used during the data analysis stage to identify the anticipated relationships. Finally, Chapter V reports a summary of the findings, conclusions, policy implications and recommendations for future study and research.

The study focused on five primary research questions, along with several subsidiary questions, that were designed to provide insight into the current status of ECCE in the Arab region. They were also designed to elicit the relationships between different education and health indicators that impact the provision of equitable access of quality ECCE. Answers to these questions were obtained by analyzing the means and examining the correlations between the education indicators.

This study was guided by the following research questions and subsidiary questions:

Research Question One: What are the main areas and levels of *ECCE policy* regulations and implementation in the Arab States, and the subsidiary questions: (a) What are the legislative policies that have been developed to promote compulsory pre-primary education? (b) Does ECCE governance influence the quality, access and equity of ECCE? (c) How does pre-primary education finance in particular and education finance in general, impact ECCE provision in the Arab States?

Research Question Two: What are the relationships between *child well-being* conditions in and equitable access to ECCE, and the following subsidiary questions: (a) Does poverty impact ECCE provision? (b) Is there a relationship between poverty levels and quality ECCE?

Research Question Three: What is the relationship, if any, between *gender disparity* in pre-primary education and quality ECCE, and the subsidiary questions: (a) Does gender disparity in pre-primary education influence gender disparity in primary education? (b) Does enrollment of students with ECCE experience in first grade correlate with gender disparity in pre-primary education?

Research Question Four: What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and *primary education*, and the following subsidiary questions: (a) How does pre-primary education impact primary education? (b) Does pre-primary education influence the internal efficiency of primary education measured by rates of dropout in grade 1 and survival to grade 5? (c) What is the predictive strength of quality ECCE on primary education?

Research Question Five: How does the *ECCE provision* in the Arab States compare to other developing countries, measured by progress towards *EFA goal 1*?

### Summary of Research

Growing recognition of the importance of the early years has led to the ever-increasing international drive for equitable access to quality early childhood care and education (Meyers, 2002; Nsamenang, 2006; Woodhead, 2006). In view of that, the campaign for child survival and development reached a peak in 1990 at the World Conference on Education for All in Jomtien, Thailand, where delegates from 155 countries, as well as representatives from some 150 organizations adopted the World Declaration on Education for All. In article 5, it called for broadening the scope of basic education by recognizing that learning begins at birth. It also highlighted ECCE as a foundation for later learning and development and called for early childhood care and initial education to be granted through different providers and caregivers involving families, communities or institutional programs. This world conference made possible for the field of early childhood education to find its way into policy-making agendas.

Following this emergent interest in ECCE, a majority of the Arab leaders attending the 1990 World Summit for Children took the initiative to assume responsibility for ECCE provision in their countries (Zahzah, 1998). This was reflected in the establishment of local and regional conferences, special councils and multiple committees devoted to raising awareness on the significance of ECCE. Such actions commenced by the First Arab High Level Conference on Children held in Tunisia in 1992 which adopted a set of global goals for the year 2000. It was followed by more conferences, forums, and even placing early childhood on the agenda of the Summits of Arab World leaders. A number of Arab governments settled on ratifying the various conventions on the rights of the child aiming to enhance child development, especially for the most vulnerable and disadvantaged children. Notably, over the past two decades, investments by governments, donor agencies, private

groups, NGOs, and civil societies were channeled to expand early childhood programs in the Arab Region.

Despite the political will, and although ECCE stands high on rhetorical agendas of governments, commitments made at Jomtien by Arab States remain highly visible but significantly unmet (UNESCO, 2006a). Early childhood education still does not receive the required attention. Even though most of the Arab States have a pre-primary system of education for children aged 3-5 years, the gross enrollment ratio (GER) varies between 0.7 percent and 99 percent – the education indicator showing the widest discrepancy between Arab States (UNESCO, 2006b).

A host of contextual factors influenced ECCE provision in the Arab States. These included political, economic, social and cultural reasons. Some of these factors facilitated the development of ECCE programs while others hindered it. The aim of this study is to add to this knowledge base by specifically examining the above mentioned factors and elicit their impact on the provision of quality ECCE in the Arab States.

### *ECCE Policy*

What are the main areas and levels of *ECCE policy* regulations and implementation in the Arab States? What are the legislative policies that have been developed to promote compulsory pre-primary education? Does ECCE governance influence the quality, access and equity of ECCE? How does pre-primary education finance in particular and education finance in general, impact ECCE provision in the Arab States?

Even though no legislations for compulsory pre-primary education were developed until now in all Arab States, other legislations for ECCE services were initiated (Faour et al., 2006). With variations among the governments, each Arab country has established a higher

council or national task force for childhood and family care. Current legislations and ECCE policies vary from designing comprehensive early childhood development strategies and plans of action, as the case in Jordan and Lebanon, for example, to simply ensuring realization of children's full rights as in Djibouti, Libya and Algeria.

It should be noted that the lack of strong public structures in early childhood education, regional disparities, and the difference in cost and quality between public and private sectors create inequality in access and policy regulations. According to UNESCO (2007a), the share of pre-primary enrollment by the private sector was above 75% in more than half the countries reporting data. Additionally, the private sector is almost the sole provider for ECCE in Bahrain, Jordan, Morocco, Oman, and Palestine. A concern related to privatization is that entrance requirements and high fees may exclude many vulnerable and disadvantaged children from ECCE in the region (McLean, 2006).

Accordingly, preliminary research about ECCE governance and provision in the Arab region revealed that children of higher income and better educated parents are more likely to have the advantage of participating in early childhood programs than children from low socioeconomic backgrounds, given the fact that most of the programs are still run by the private profit making sector (Faour et al., 2006). Additionally, considerable regional disparities exist in pre-primary education coverage. Such discrepancy is also evident in data reporting where limitations such as social and political opposition to revealing information and paucity of data on certain population groups makes early childhood research a challenge in this region.

Similar findings were reported by two major studies conducted by the Arab League Educational Cultural and Scientific Organization (ALECSO). The first study aimed at examining the legitimacy and existence of ECCE programs in the Arab countries (Al-

Shatawi & Ahmar, 1983). Highlights of this study included: (a) the difficulty of obtaining data on early childhood education in the Arab countries; (b) limited access of Arab children 0-6 years to early childhood services; (c) the widespread presence of such services in urban areas versus rural areas; and (d) poor involvement, in terms of policy and finance, of the governments versus the private sector. The second study conducted showed that pre-primary GER in the Arab countries increased from 9% in 1975 to 14 % in 1991 (Khattab, 1995; UNESCO, 1995). Findings revealed in this study included: (a) persistent problems in the quality of ECCE services provided due to large class sizes, shortage of qualified staff and administrators, and lack of healthy facilities; (b) the offering of a traditional and formal curriculum; and (c) poor government involvement and governance.

According to Kamerman (2006), ECCE governance is a key element to develop a national early childhood policy that promotes the holistic development of young children. With good governance – where responsibilities are divided between government and public and non-public actors- ECCE services should attain quality standards, are affordable, meet local and cultural demands, promote cost-effectiveness and achieve equity goals. In the Arab States, ECCE governance incorporates several sectors in the government, notably those concerned with education, health, and social assistance. ECCE programs come under different sponsorships where ministries in many Arab countries have established policies and guidelines for registration, licensing and accreditation. It should be noted that in countries, such as Jordan, Lebanon, Syria, Kuwait, UAE, among others, inter-sectoral coordination commissions have achieved remarkable success in coordinating pilot projects, policy formulation and situational analysis. For instance, in Jordan, the High/Scope Approach, originally initiated in USA, is a preschool approach used in both public and private half and

full day preschools, nursery schools, day care centers, and programs for children with special needs (UNESCO, 2007b).

As mentioned earlier, with the stronger dominance of the private actors in ECCE governance, access and quality of ECCE services are mostly limited to children coming from affluent backgrounds. Nevertheless, with inter-sectoral efforts, future studies can examine how the private actors can support government efforts to expand, improve and coordinate ECCE provision and finance.

With almost non-existent data on pre-primary education finance in the Arab countries, it is unfeasible to create a holistic picture of ECCE expenditures and costs. Not – withstanding this paucity, the relationship between education finance in general in the Arab States and pre-primary GER turned to be unreliable and not statistically significant. According to UNESCO (2007b), in the majority of Arab States, governments limited funding remains insufficient to provide equitable access to ECCE, and hence, no ECCE costs are being reliably reported. According to Levin and Schwartz (2006), ECCE cost studies in different countries do not specifically capture operating and capital costs of ECCE. For these studies to accurately measure ECCE costs, it is required to collect information about public and private costs, the expenditures of each level of government on ECCE, operational and capital costs, and intra-country variation in these costs. Since this study was delimited to statistical data from 2007 and 2008 EFA reports, actual pre-primary finances and costs were not fully available to examine. Even though with the gradual increase of pre-primary GER, future research may be able to reveal significant results, when both private and primary ECCE expenditures are collected and analyzed.



### *Child Well-Being*

What are the relationships between *child well-being* conditions and equitable access to ECCE?

Under- 5 mortality rates and stunting levels are health indicators that reflect the collective impact of quality birthing experience as well as neonatal, undernutrition and inadequate health care. As reported in Chapter IV, a moderate but negative statistically significant relationship was found between these child well-being indicators and pre-primary education GER. As rates of under – 5- mortality and stunting levels decrease, access to ECCE programs increases. With a healthy start in the early years, children in the Arab States have more and better chances of participating in child development and education centers. While most children are inoculated against preventable diseases, their well-being varies significantly between countries within the Arab region (UNESCO, 2007a). This will inevitably play a role in the great discrepancy in pre-primary GER among the Arab countries. It should be noted that a number of studies across Asia and Africa have found that stunted children enroll in school later than other children (Glewwe & Jacoby, 1995; Jamison, 1986, Moock & Leslie, 1986; Partnership for Child Development, 1999). Parental perceptions of their children’s suitability for schooling as well as limited resources and special services for these children plays a key role in their limited access to ECCE programs. Additionally, these studies reported that parents would rather invest in their healthy children education rather than those less healthy. Both of these explanations are consistent with the finding that the school enrolment of girls is delayed more by stunting than for boys (Alderman et al., 2001), presumably reflecting parents increased unwillingness either to invest in girls’ education or to allow young girls to walk long distances to school. Regardless of the explanation, the finding

that girls are differentially disadvantaged is of concern, given that gender disparity is growing as an international priority in all educational realms.

Poverty is said to be one of the principal agents of interference in children's development. Allen-Meares (2004) emphasizes the importance of providing adequate care for young children at risk because poverty may jeopardize health, cognitive development, academic development, and socio-emotional functioning. It is during the preschool years, when children's emotional, social, regulatory, and moral capacities show fast progress (Levine, 2005). Therefore, many researchers identify that the strongest effects from poverty take place during preschool years. For instance, Smith, Brooks-Gunn, and Klebanov (as cited in Allen-Meares, 2004) have found that in children 3 to 8 years of age, there is a strong correlation between cognitive test scores and prevalence of poverty. Furthermore, Hunt (as cited in Johnson et al., 1998) argues that poverty experienced in early childhood may have a profound influence over children's intelligence as it is rapidly developing and changeable in young children.

With this in mind, in this study, poverty levels are measured by GNP per capita per pupil values. As indicated in Chapter IV, a moderate and positively significant correlation was found between GNP per capita per pupil values and pre-primary GER in the Arab States. With lower levels of poverty, children are more likely to benefit from their experiences and interactions in early childhood centers. Consequently, with additional gross national funding per pupil allocation, children, especially the most vulnerable and disadvantaged, will have equitable access to ECCE programs.

With limited data on quality ECCE indicators, correlations between GNP per capita per pupil and teaching staff, percentage of trained staff and pupil teacher ratio were not statistically significant. Notwithstanding, a negative relationship between GNP per capita

per pupil and pupil teacher ratio was found. With more funding on staffing, children have better chances of experiencing early childhood education in smaller classes, and thus receive quality ECCE services. As cited in other studies, most investigators who have examined the discrete effects of different program elements have identified small class size (or, at any rate, a small student-teacher ratio) as vital to quality ECCE programs. While different ratios are cited, most researchers seem to agree that the student-teacher ratio should not go above 16:1, and many favor a 10:1 ratio for 4 year olds. A 1985 report by the Chicago Public Schools found that children performed better in a small half day kindergarten class (16:1) than in an all-day class with a 28:1 ratio. (Chicago Public Schools, 1985).

### *Gender Disparity*

What is the relationship, if any, between *gender disparity* in pre-primary education and quality ECCE? Does gender disparity in pre-primary education influence primary education? Does enrollment of students with ECCE experience in 1<sup>st</sup> grade correlate with gender disparity in pre-primary education?

Several studies have indicated a gender disparity in early childhood education environments (Evans, 1998). This disparity has been recognized in terms of the student-teacher interaction, the differing types of play fostered the varying use of praise and gender-specific messages, and the stereotypical messages evident in children's literature or play materials. In this study, gender disparity in ECCE programs is examined through the gender parity index only. While no relationships existed between gender parity index (GPI) and the percentage of trained staff and pupil teacher ratio, a negative statistically significant relationship was found between GPI and total number of pre-primary teaching staff. Notably, it seems that with more male children enrolled, more teachers are employed in

ECCE programs. This is an area that future research should inevitably focus on in order to examine the concept of gender disparity from different perspectives in ECCE.

### *ECCE and Primary Education*

What, if any, are the relationships between access and equity in pre-primary education, quality ECCE, and *primary education*? How does pre-primary education impact primary education?

As mentioned earlier in the study, primary education enrollment was measured through the following indicators: GIR, NIR, GER, NER, and new entrants to first grade with ECCE experience. While no significant relationships existed between pre-primary GER and primary education GIR, NIR, GER and NER, respectively, a strong statistically significant relationship was evident between pre-primary GER and new entrants to first grade with ECCE experience. Clearly, the more children are exposed to pre-primary education experience, the more likely they will be enrolled in first grade. This supports findings in other studies that advocate for pre-primary education benefits on subsequent primary school performance. However, these studies used different indicators other than enrollment to measure these estimated gains. For instance, Berlinski and his colleagues (2006) argued that one year of pre-primary school increases average third grade test scores by 8% of a mean or by 23% of the standard deviation of the distribution of these scores. Another finding reported was that pre-primary school attendance positively affects students' self-control in the third grade as measured by behaviors such as attention, efforts, class participation, and discipline. It should be noted that in the Arab countries, pre-primary education enrollment cannot provide reliable and significant correlations with primary education enrollment for

the following reasons: (a) lack of complete data; (b) disparities in pre-primary governance across the countries; and (c) inconsistency in staffing qualifications and readiness.

As stated earlier, pupil teacher ratio (PTR) is the most compelling indicator for quality ECCE. In determining the impact of quality ECCE on primary education, a correlation is performed between pre-primary PTR and GER of new entrants to first grade. A significant relationship indicated that the smaller the PTR in pre-primary education the more likely it is to have a higher GER of new entrants to first grade with ECCE experience; hence, small class sizes promote quality ECCE. Most studies on small classes targeted K-3 classes (Achilles, 2003; Egelson, Harman & Achilles, 1996; Mosteller, 1995), while others such as Chicago Public Schools study (1985), targeted 4 and 5 years old; it should be noted that all measured quality education through students achievements. Nevertheless, such studies are not yet conducted in the Arab countries, and future studies in this region would ultimately measure quality ECCE services.

### *Overall Progress to EFA Goal 1*

How does the *ECCE provision* in the Arab States compare to other developing countries, measured by progress towards *EFA goal 1*?

Pre-primary GER is the education indicator used to measure Education for All (EFA) progress report towards goal 1 which is “expanding and improving early childhood care and education, especially for the most vulnerable and disadvantaged children” (UNESCO, 2006b). A comparative analysis of pre-primary GER means of the countries reporting data in the Arab region, developing countries and the world indicates that so far the Arab region has achieved the least progress towards EFA goal 1. Hence, even though with the slight progress

of ECCE provision in the Arab States, governments and policymakers still need to take responsibility in providing this service to all children, especially the disadvantaged.

### **Policy and Practice**

According to Meyers (1992), justifying early childhood programs in terms of school readiness, equalizing opportunities and promoting social justice has been widely cited as an underpinning rationale for ECCE. Notwithstanding, pre-primary education has been viewed around the world as a privilege available only to families who can afford it. The exclusiveness of pre-primary education is more pronounced in some countries than in others. The prevalence of the private provision is one factor. In the Arab region, where many governments are resorting to outsourcing and privatization to fund ECCE services, the challenge of achieving equitable access to quality ECCE is on the rise.

Notably, the lack of compulsory pre-primary education policy, public structures in early childhood education, regional disparities, and the differences in cost and quality of ECCE between public and private sectors create inequity and disparity. Additionally, in many Arab countries, low politics and funding often lead to uneven implementation of local and national ECCE policies.

In terms of policy implementation, cultural views about early childhood, responsibility for the care and education of young children, and the purposes of ECCE institutions are correlated with several practical aspects, such as: government involvement, ECCE delivery methods, financing, starting age for compulsory schooling, coverage and age range, length of operation during the day and year, staffing (profile and conditions), pedagogical approaches and parental involvement (Dahlberg et al., 1999).

In an attempt to encompass all these domains, policymakers and involved stakeholders from a range of sectors - such as health, education and nutrition – should be involved in ensuring that ECCE policy development and implementation meet the diverse needs of children and families in different country contexts. Inter-sectoral coordination and delineation of responsibilities for ECCE services and funding can help in reducing geographic and socio-economic disparities. For instance, social organizations – NGOs, religious organization or communities – can take a lead in securing funding and resources needed to secure different forms of ECCE services. By working in partnership with these social organizations and private business, governments in the Arab countries will be able to make ECCE services accessible to vulnerable and disadvantaged children.

Accordingly, to increase access to ECCE services and programs, legal provisions should be developed to make ECCE services as a right for every child. To ensure quality ECCE, minimum standards should be developed for physical facilities, and training and academic qualifications of teaching staff and care-givers. It is stressed that quality early years provision is consistent with highly qualified practitioners, continuing professional development, personal reflection and self-evaluation which incorporates children's perspectives. What is clear is that quality must not suffer as access expands and that improvements in quality should not benefit the economically well-off at the expense of poor, as has happened, for example, with privatization. To that end, by creating a massive public awareness about the need and importance of ECCE services, parents as wells as relevant ministries will be more involved in understanding the value of that period and hence support for the advocacy of early childhood care and development.

In sum, ECCE policymakers, especially in the Arab countries, should: (a) provide access to high-quality early childhood programs to the most vulnerable children because of their greater need and the higher return to the public's investments; (b) pay attention to quality by developing legislations and state or country standards for early childhood programs, including content standards that address what young children should know and be able to do; (c) improve the education and compensation of early childhood educators and staff by requiring pre-school teachers to have a four-year college degree, specialized training and professional development; and (d) closely monitor early childhood programs as they expand to make sure quality is maintained.

### **Implications for Future Research**

This study was challenged by the paucity of data on early childhood indicators which limited the depth of analysis in terms of performing Pearson's correlations instead of multiple regressions. Additionally, the confidence level of the results of absolute means was low due to the limited number of Arab countries reporting data for several health and education indicators.

It would be interesting to see if the results were similar if all Arab countries reported their data. There would be sufficient data to run more correlations and perhaps allow for multiple regressions. It may validate the results of this study and would highlight which variables had a stronger impact on the provision of quality ECCE in the Arab States.

While the literature review supports the observations made regarding quality ECCE in terms of pupil teacher ratio and percentage of trained staff, thoughtful students of educational research realize that class environment, as well as available resources, vary widely among ECCE programs. These factors coupled with factors such as, parental involvement,



pedagogical practices, available funds and additional resources, may affect the extent to which an ECCE program is run by teachers and managed by administrators. Additional research should focus - again if data needed is available - on several of the aforementioned factors in order to determine how their presence affects the quality of an ECCE program.

Possible studies for the future would be research projects that assess the impact of national and local policies on children's development and learning. A careful analysis of legislative ECCE policies in place in countries with successful ECCE programs, such as Jordan, will shed a light on actual implemented policies that can be adopted in the future by other countries in the region.

This particular research has examined the factors that play a role in slowing the provision of quality ECCE programs in the Arab region. Additional research should focus on aspects that may expand and enrich ECCE programs such as the relationship between personal, interpersonal and cultural/ institutional factors, and the role of leadership in managing and improving these programs.

### **Conclusion**

A good start in life through comprehensive early childhood development is every child's right. It is also a key investment for building the human capital that a community, society, and indeed a nation needs. This requires an effectively integrated ECCE approach to policies, strategies and programs for parents, care-givers, and stakeholders.

In the Arab region, early childhood care and education programs are still limited or non-existent and they remain under-funded and available only to a lucky few. However, a holistic view of child development is slowly growing as innovative policymakers in these

developing countries come to recognize links between educational achievement and health and nutrition.

The aim of this study was to provide educators, policymakers and stakeholders with a profile of the factors that hinder the progress of quality ECCE provision in the Arab region. The examination of where do the Arab States currently stand with respect to quality, equity, and access to ECCE, did shed a light to the deficiencies and gaps that need to be systematically and co-operatively handled by policymakers, stakeholders and governments. In conclusion, in the Arab States, efforts should be devoted both to the expansion and diversification of ECCE delivery services, and to the innovation and improvement of educational curricula and teachers' qualifications by promoting and implementing comprehensive ECCE policies.

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Appendix A  
ECCE Country Profile

Country profile prepared for the  
*Education for All Global Monitoring Report 2007*  
*Strong Foundations: Early Childhood Care and Education*

## **Country's Name**

### **Early Childhood Care and Education (ECCE) programs**

**Compiled by:**

UNESCO International Bureau of Education (IBE) Geneva, (Switzerland)

2006

This profile was commissioned by the Education for All Global Monitoring Report as background information to assist in drafting the 2007 Report. It has not been edited by the team. Information included in the series of profiles has been compiled by the IBE. In several cases data have been revised and/or expanded thanks to the helpful support of Ministries of Education and UNICEF offices worldwide. The views and opinions expressed in the present document are not necessarily those of the EFA Global Monitoring Report or UNESCO. The profile can be cited as follows: "Country Profile commissioned for the EFA Global Monitoring Report 2007, Strong foundations: early childhood care and education". For further information, please contact: [efareport@unesco.org](mailto:efareport@unesco.org)

## COUNTRY'S NAME

## Early Childhood Education and Care (ECCE) programs

**A. GENERAL INFORMATION, STATISTICS AND INDICATORS**

Starting age of compulsory education (if applicable):

**1. ISCED 0 PROGRAMS (USUALLY, PRE-PRIMARY EDUCATION)**  
(ISCED = International Standard Classification of Education)**1.1. National definition of ISCED 0 programs:****1.2. Normative age group(s) covered by ISCED 0 programs:****1.3. ISCED 0 programs: statistics and indicators** (source: UNESCO Institute for Statistics–UIS)*1.3.1. Enrolment:*

	Percentage	Year
Gross enrolment ratio (GER)		
Net enrolment ratio		
Percentage of children entering primary education with previous preschool experience		

*1.3.2. Enrolment ratio by age group, 2002/03 (percentage, also including the first years of primary education when applicable):*

Less than 3 years of age	Age 3	Age 4	Age 5	Age 6	Age 7

UIS estimation. (\*) Enrolled in primary education. (\*\*) Primary education enrolment ratio.

*1.3.3. Teachers, 2002/03:*

Total number of teachers	Of whom female (%)	Percentage of trained teachers (all)	Percentage of trained teachers (males)	Percentage of trained teachers (females)
		...	...	...

*1.3.4. Funding:*

Percentage	
Public current expenditure per pupil as percentage of the Gross National Product per capita	(2004)

Source: UIS.

*1.3.5. Main source(s) of financing:***2. OTHER ECCE PROGRAMS**

*(Generally preceding ISCED 0 programs)*

**2.1. National definition of other ECCE programs:****2.2. Normative age group(s) covered by other ECCE programs:****2.3. Estimate number of children covered by other ECCE programs:****B. BACKGROUND INFORMATION CONCERNING ECCE PROGRAMS (INCLUDING ISCED 0)****3.1. Legislation concerning ECCE:****3.2. Official body/bodies in charge of supervision or coordination:****3.3. Other entities involved in the provision (e.g. municipalities, local governments) and main types of providers (e.g. public, private, mixed, community-based, etc.):****3.4. Type of personnel involved:****3.5. Type of staff training (requirements):****3.6. Recent national policies and reforms:****3.7. Efforts targeted at vulnerable or disadvantaged children:****3.8. Special projects/programs aiming at expanding or improving ECCE:****3.9. Information concerning the curriculum (if applicable) or the contents of ECCE programs**



3.9.1. Objectives and aims:

3.9.2. Learning areas and teaching-learning methods:

3.9.3. Average number of hours per week and average amount of weeks per year:

### 3.10. Any other relevant and pertinent information

#### C. SUPPLEMENTARY INFORMATION REGARDING ECCE (TO BE COMPILED IN COLLABORATION WITH UNICEF OFFICES WHERE POSSIBLE)

4.1. Parenting programs are usually addressed to parents and families of children less than 6 years of age. Please provide information about any parenting programs in your country according to the table below:

Type of program	Yes or No (note for each program)	Please estimate the number of beneficiaries (if possible)
Parenting education through early learning centers and child care centers		
As component of health and nutrition programs, such as information about child development included in health and nutrition visits		
Parent groups that meet to discuss issues of their young children, including health, nutritional status, and development		
As component of adolescent, livelihood or literacy programs		
Media broadcast, such as <i>Sesame Street</i> , with media for and with children		
Other (please specify)		

Are any of these programs targeted specifically toward the vulnerable, poor, disadvantaged or excluded? If so, which ones? (Please provide/attach any additional and relevant information if available).

4.2. Is there a national-level system for monitoring children's development or school readiness prior to entering primary school?

4.3. Is there a policy on early childhood (ECCE, ECD, etc.) that has been accepted? If not, is there one under development?

[Information revised by the Ministry of Education and UNICEF, January 2000

