In search of quality in programmes of early childhood care and education (ECCE)

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Introduction

Early Childhood Care and Education (ECCE) and Quality
as seen in the documents of Jomtien and Dakar

The Jomtien Declaration of the World Conference on Education for All stated that: “Learning begins at birth. This calls for early childhood care and initial education. These can be provided through arrangements involving families, communities, or institutional programmes, as appropriate.” (Article 6) The Framework for Action also set as one of the targets to be considered in plans: (1) Expansion of early childhood care and development activities, including family and community interventions, especially for poor, disadvantaged and disabled children.” (Paragraph 8).

These particular statements do not include any mention of quality. Indeed, there are relatively few specific references to quality in the Declaration. The “expanded vision” set out does say that to universalise access and promote educational equality it is necessary to “increase educational services of quality”. In addition, “The most urgent priority is to guarantee access and improve the quality of education ….” What constitutes quality for the writers of the Declaration must be inferred, but in general, the notion seems to be that quality education is that which meets the basic needs of children.

The Framework for Action presented at Jomtien includes additional references to quality in its text. Among the suggested principles that countries are urged to follow we find reference to “relevant, quality primary schooling.” Later on, the text of the Framework notes that “Expanding access to basic education of satisfactory quality is an effective way to improve equity.” And, “Relevance, quality and equity are not alternatives to efficiency but represent the specific conditions within which efficiency should be achieved.” In these statements a rough set of relationships is established between quality and access, equity and efficiency. Finally, areas noted in the Framework to be considered for funding include “National efforts and related inter-country co-operation to attain a satisfactory level of quality and relevance in primary education.” [Italics added]

The reader will note that mentions of quality are general or associated with primary education. Moreover, it is suggested that “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.” ECCE is treated as a precondition to quality education and is not looked at in terms of its own quality.

Dakar. The Dakar Framework for Action reinforced the call for “expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.” (goal “i”). It also seems to place somewhat more emphasis on quality. Three of the six goals to which there is a collective commitment include a mention of quality. These goals are:
(ii) All children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of high quality.

(v) Eliminate gender disparities in primary and secondary education by 2005 and achieving general equity in education by 2015, with focus on ensuring girls full and equal access to and achievement in basic education of good quality.

(vi) Improving all aspects of the quality of education and ensuring excellence of all so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

Again the reader will note that quality is not specifically attached to early education and care. It is associated with primary schooling, with achieving equity and with measurable learning outcomes.

**EFA Monitoring of ECCE and the preparation of this paper**

The fact that this review has been commissioned as part of a process of monitoring Education for All (EFA) affects in important ways how the topic will be treated. For instance, although ECCE programmes often have important effects on families and communities, emphasis will be on the learning and development of children. While recognising the importance of discussing and attaining quality at the micro level, in relation to particular forms of local care and education occurring in context, the main purpose of the EFA monitoring is to examine quality at the level of educational systems, therefore, emphasis will be placed on quality at the level of systems; Although families and parenting practices are known to have a stronger effect on learning and development than formal ECCE programmes, the EFA monitoring focuses on non-parental ECCE arrangements outside the home. Accordingly, while drawing on a general research literature describing the various environments and conditions in which development and learning can occur, the emphasis will be on programmes and their quality as they affect these goals. Although the discussion must include attention to the earliest years (“learning begins at birth”), EFA monitoring has been focused on ages 3 to 5 and on preschool programmes as they affect personal and social, school and non-school outcomes. Finally, while looking at results and processes nationally (and to some extent locally) attention will need to be given to whether or not there are dimensions of quality that may stretch across international boundaries and allow international comparison.

Elsewhere in this volume statistics will be presented for the coverage of ECCE programmes on a country-by country basis. This presentation is at once facilitated and limited by the fact that the indicators established to guide EFA monitoring of ECCE were 1) gross enrolment and 2) the percentage of new entrants to primary school with early education experience. These counts of children who attend, or attended, ECCE programmes do not tell us anything about the quality of outcomes or of the programmes.
offered. Accordingly, it has not been possible for the author to draw upon results from the extensive EFA evaluations that were carried out worldwide prior to Dakar. In preparing this paper, I have drawn upon a fairly extensive network of colleagues scattered throughout the world. An internet search has also been made. I realize, however, that these limited consultations cannot possibly uncover or give credit to many local and national research, programming and monitoring efforts that should be considered. A more intense and systematic evaluation, country-by-country, would certainly be fruitful.

Having noted the lack of specific references to the quality of ECCE in the basic EFA documents, the lack of quality indicators in the monitoring system, and recognising the degree of uncertainty that exists about what the measurable outcomes for early education and, it seems appropriate to express appreciation to the editors of this monitoring volume for including a discussion of the quality of ECCE. I hope this article will contribute to the search for quality, by whatever name, and a movement from rhetoric toward actions that increasingly incorporate quality into ECCE programmes and their evaluations.

Organisation of the document

In the pages that follow, I will begin by looking briefly at what research on learning and development and more extensively at what evaluations of programmes seem to tell us about effects of early experiences on children, families and societies. I will then review more directly the question of whether, and how, the quality of ECCE programmes improves desired personal and social outcomes, reviewing available research and evaluations. From these reviews I will try to extract what seems to be the predominant thinking about what constitutes quality and then set this against an alternative perspective which tries to take us “beyond quality” in our thinking. An attempt to bridge these two ways of approaching quality will be made. I will close with some conclusions and implications for how to proceed.

Because the topic is complex and cannot be done justice in a short article, I will be liberal with references in the hopes that readers will be challenged to explore further.

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1 The monitoring of ECCE contrasts with that of primary schooling where the 13 indicators established included several that could be classified as approximations to quality.

2 Any review of these topics must be partial at best. Hundreds, if not thousands, of research studies have been carried out over the last 20 years that deal directly or indirectly with the topic of quality. Most have resulted in articles and presentations, only a small portion of which it is possible to read and absorb. However, it is possible to identify key studies whose results appear and reappear in the literature. And, it is possible to draw upon expert reviews and mega-analyses of research done by others.
The early years: research and evaluation results

Common Sense and Basic Research

Common sense suggests that the early years -- when the brain matures, when we first learn to walk and talk, when self-control begins and when the first social relationships are formed -- must be regarded as important. Common sense suggests that children whose basic health, nutritional and psycho-social needs are being met will develop and perform better than those who are not so fortunate. Common sense also suggests that a child who develops well physically, mentally, socially and emotionally during the early years will be more likely to be a good and productive member of society than one who does not.

Research on early childhood development confirms common sense. The literature is vast and varied, encompassing research carried out by psychologists, medical doctors, anthropologists, neuro-biologists, educators, sociologists, nutritionists and others. A very long list of basic research studies and reviews of same, usually not linked to a particular intervention programme, can be cited to support: 1) the position that the early years constitute a key period for the development of intelligence, personality and behaviour, 2) the idea that early childhood learning and development can be enhanced, and 3) the way in which that happens is sensitive to differences in cultural, social and economic contexts. It is not the purpose of this paper to review the vast literature that stems from basic research. Rather, my focus will be on benefits to children resulting from the provision of special programmes and environments intended to enhance learning and development.

Research and Evaluation related to ECCE programmes and services

A child’s learning and development is influenced by the multiple environments that surround them. The immediate and “natural” environments in which young children develop and learn are those of the family and community. These may be more, or less, supportive of development and the degree of support does not necessarily correspond to or depend on material well being. But even in more supportive home environments, it may not be possible to respond in the most appropriate way to all of a child’s basic needs so that a child can develop his or her potential to the maximum. A child age 3 or 4 who has no brothers and sisters at home and who lives in a city where freedom to play outside with others is limited may not have the opportunity to develop certain skills that are essential for later life.

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3 See, for instance the earlier work of Hunt (1961), Vygotsky (1962), Bloom (1964), Piaget and Inhelder (1969) and or more recent work on brain development (summarized in Mustard 2002), the roots of antisocial behaviour (Rutter, et.al. 1998), the prevention of Intellectual Disabilities (Ramey and Ramey 1998), resilience and “positive deviance” (Werner and Smith 1982; Zeitlin, Ghassemi and Mansour 1990), child rearing practices and socialization (Levine 2003) and nutrition and cognitive development (McKay, et.al 1978) or recent reviews and edited volumes by the National Research Council (2001), The Carnegie Corporation (1994), The Centre of Excellence for Early Childhood Development (Encyclopedia 2004), Keating and Hertzman (1999), and Young (2002), among MANY others.

4 The Convention on the Rights of the Child says that "States Parties agree that the education of the child shall be directed to the development of the child's personality, talents and mental and physical abilities to their fullest potential." (Article 29)
others of his or her age may be limited, has less opportunities to interact with peers, affecting social development. A child of an illiterate parent may receive extraordinary attention promoting social and emotional development but may have other kinds of support available at home that facilitate language and cognitive development.

When conditions at home and in the community do not seem to provide all of the support needed to allow children to develop their potential, the first question becomes, “Can programmes be established that complement effectively the natural environments of home and community and that have a positive effect on learning and development?” The second question, central to this article, is, “Does the quality of these programmes make a difference?

The general response to the first question is that an extensive and growing body of research and evaluation studies shows that a variety of programmes can have important and lasting effects on children, including effects on cognitive and social development, on progress and performance in schools, on social behaviour and participation and on economic status and productivity in later life. Although programmes may benefit all children, the effects are likely to be greater for children from so-called disadvantaged backgrounds than for their more privileged peers. Moreover, depending on how the programmes are organised, they may also have effects on families and communities.

The answer to the second question seems to be that for most desired outcomes, higher quality makes a difference, even when the tendency for privileged families to choose higher quality programmes is taken into account. That is particularly true for language and cognitive outcomes but also, usually to a lesser degree because of the cognitive bias of many programmes, for social outcomes. Moreover, it is possible for programmes of poor quality and/or with certain characteristics to have negative effects on development. At the same time, I will maintain in this article, probably to the consternation of many ECCE colleagues, that it is possible to observe important effects on children and on their progress and performance in schools resulting from programmes that might not be classified as of high quality by Minority World standards.

Perhaps the main evidence for the above assertions comes from longitudinal studies which track children over time, for shorter or longer periods. Some of these compare children who have participated in a particular kind of programme, usually an experimental or model programme, with similar children who have not; some compare children who have participated in (usually) public programmes that are offered to a wide range of children and families and which show “natural variation” in their operation. A great deal of the evidence comes from the United States or Europe or other countries in the industrialized Minority World, but there is growing evidence as well from evaluations of programmes in countries of the Majority World. Although most of the longitudinal

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5 These programmes may involve direct attention to children or indirect attention by working with their parents, or be child-centred community programmes, or a combination of these. They may involve health or nutrition or educational components, or a combination. They may be publicly or privately run. A range of curricula can be found.
research on ECCE programmes looks at effects over time of programmes for children in the 3 to 5 age range, some research results can be cited for the earlier years.

Evidence from the Minority World

Programmes for children younger than three years of age. Child care for very young children is still a controversial topic, overlaid with a host of cultural, ideological, organisational, content and methodological issues. The posture that childrearing in the early years should be a family affair and that placing children in settings outside the home is bound to have negative effects is set against a contention that even very young children can benefit from education in non-parental settings. This issue is complicated by a growing need to find affordable, secure and enriching care alternatives for their children while parents work.

To help understand effects of non-parental care for very young children on learning and development in the United States, The National Institute of Child Health and Human Development (NICHD) is carrying out what may be the most complete study ever on this topic. NICHD has followed a sample of 1,300 children in the United States from shortly after birth to the first grade (NICHD 2002). This research has confirmed that family factors and processes (for instance: income, maternal sensitivity, maternal depression, paternal presence) are much more important determinants of behaviour in kindergarten and the first grade than participation in child care centres at an early age. At the same time, the study, reinforced by others, also indicates that cognitive-linguistic development seems to be enhanced by high-quality care early on.

A potentially disconcerting and still somewhat controversial research result from the study, as explained by Belsky (2003) is that “placing children in an average non-maternal facility for long hours does seem to be associated with some (modest) developmental risk, especially with respect to the mother-child relationship and problem behaviour, and such outcomes are not merely by-products of low-quality child care.” One interpretation of this finding is that long hours in childcare correlate to some degree with the factors mentioned above such as maternal sensitivity and depression, confounding the result. It is also possible that mothers with more difficult children are likely to place them in a child care centre. Moreover, the U.S. findings do not correspond with results of longitudinal research carried out in Sweden (Andersson 1992) which found positive effects of early day care (from age 1) on socio-emotional development in comparison with home care. The Swedish setting is particular, however: parents are granted liberal parental leaves from work in order to care for their children during the first year of life, childcare is regarded as part of the educational system from the first years of life and most care is deemed to be of high quality. The Swedish study, which followed children for a longer period of time than the NICHD study has, to date, found “sleeper effects”: the positive effects on social development of early participation in childcare did not appear until age 13 at which time they were substantial.

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6 The terms Minority and Majority worlds will be used rather than First and Third worlds or developed and developing or North and South.
The Early Head Start programme, also in the United States, offers children and families comprehensive child development services through centre-based, home-based and combination programme options. A rigorous evaluation found a positive impact on language and cognitive development and several aspects of socio-emotional development (e.g., lower aggressive behaviour). In addition, parenting practices were affected (e.g., more emotionally supportive). Effects were larger in families with a high number of demographic risk factors. (Early Head Start Research Consortium 2002).

These results suggest that both those who lobby for strong family support (including parental leaves and child subsidies) during the earliest months of life and those who suggest that non-parental childcare can have positive results have a case, at least in the United States. And there is obviously an interaction between conditions in the home and those in childcare centres.

In many countries, programmes of parental education have been developed to help parents be better parents. This option has often been linked with the earliest years, sometimes motivated by the idea that children should be cared for at home in the first instance, but often linked to the idea that reaching parents periodically may be a lower cost alternative and more efficient way to foster development. Rigorous evaluations of such programmes have not been frequent and what one can find shows very mixed results. A general conclusion seems to be that a combination of direct attention and work with parents is the most effective route to pursue. Little has been done to identify the quality elements of such programmes or to link results to quality.

Programmes for children ages three to five. For children of preschool age, several studies from the United States of model programmes are frequently quoted to show the potential benefits of early education. These studies have followed, over long periods, children who participate in an ECCE programme and who come family environments thought to place them at risk (low-income, members of a cultural minority). They have used a randomized research design that allows comparison of participating and non-participating children. The three are: The High/Scope Perry Preschool Project (Schweinhart, et.al 1993), the Abecedarian Project (Masse and Barnett 2002), and the Chicago Child-Parent Center programme (Reynolds, et. al. 2003). In all cases, impressive effects have been found, including: better achievement (higher reading, math and literacy scores), better school adjustment, less repetition and greater school completion, less use of special services, reduced welfare expenditures, greater earnings, and reduced criminal behaviour. These particular studies are also cited frequently because they are accompanied by estimates of the economic benefits associated with the programs; in two cases the return is estimated at 7 to 1 and in one at 4 to 1.

But there have been many other, mostly shorter-term, Minority World studies which have been bought together and analyzed in a growing number of reviews of longitudinal research and evaluation. As early as 1982, Lazar and Darlington brought together results

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7 Reference should be made, for instance, to the Cost, Quality and Child Outcomes in Child Care Centers Study (Peisner-Feingerg 2001), and various Head Start studies in the United States as well as the
from 11 studies, chosen rigorously to show that “As the Twig is Bent the Tree Will Grow.” More recent reviews have been published by Karoly (1998), Barnett (1998 and 2004), and several authors writing in the Encyclopaedia on Early Childhood Development (Tremblay, et. al., eds. 2003 and 2004) which includes multiple reviews of research on the development of children 0-2 and 2-5 and on School Completion and the academic outcomes associated with early childhood development and education. These reviews rely heavily on findings from studies in the carried out in the United States but also cite results from longitudinal studies from Canada, Sweden, Ireland, England, Portugal and New Zealand.

It is common for authors to conclude that high-quality is a key factor in producing the positive outcomes. In the case of model programmes, this claim is made because the programmes evaluated are assumed to be of high quality and would, indeed, be rated as such according to most definitions of quality. However, the evaluations do not compare children attending “high quality” and low quality centres. To more adequately address quality, another kind of study has emerged over the last two decades that focuses explicitly on quality, comparing outcomes for children in ECCE centres which differ in the level of quality attributed to the centre. Such studies have been reviewed recently by Peisner-Feinberg (2004) who comes to the following conclusion:

The research evidence supports the contention that better quality child care [for children of preschool age] is related to better cognitive and social development for children. While these effects of child care quality are in the modest to moderate range, they are found even after adjusting for family selection factors related to both the quality of care and to children’s outcomes. Numerous studies have found short-term effects of child care quality on children’s cognitive, social and emotional development during the preschool years. Longer term effects lasting into the elementary school years have also been found, although fewer longitudinal studies have been conducted to examine this issue. Moreover, these results indicate that the influences of child care quality are important for children from all backgrounds. While some studies have found even stronger effects for children from less advantaged backgrounds (suggesting that this issue may be even more critical for children already at risk for school failure) the findings indicate that children from more advantaged backgrounds are also influenced by the quality of care.” (p.4)

Evidence from the Majority World

If reviewers question the wisdom of generalizing from research results obtained in the United States to settings in England or Sweden, as they have, then it seems unwise to generalize these Minority World results to countries of the Majority World where contexts

work by Andersson in Sweden cited earlier (Andersson 2002), the Competent Child follow-up study in New Zealand, the work by Sylva and others in England, and the evaluation of the Brighter Futures Programme in Canada.
may be extremely different. Although there have been fewer studies carried out to identify whether early education programmes have results later on, it is possible to point to a number of such studies and the results are very encouraging.

In 1992, the author reviewed 15 short-term longitudinal studies of ECCE programmes carried out in Colombia, Brazil, Turkey, Morocco, India, Argentina, Chile, and Peru to see what effects of the programmes could be found at the primary school level (Myers 1992). At the time I concluded that:

1. Early intervention programmes, more often than not, have a positive effect on the probability of enrolment, on school progress (repetition and drop out rates), and on achievement in the early years of primary school. The effect can be very large.

2. The mechanisms producing improved enrolment, progress and performance in primary school appear to reflect some combination of earlier enrolment age (which regularizes progress through the system, improves school readiness (related to improved health and nutritional condition and/or to improved cognitive skills), and changes in parental expectations regarding the ability of their children and/or the importance of schooling.

3. Structural conditions and the quality of primary schooling can moderate the potential effects of improved school readiness on school progress or performance.

4. Poor children and children from social groups that have been discriminated against may benefit more than more privileged peers from early intervention programmes that are multi-faceted.

5. There may be gender differences in the programme effects helping girls to catch up to boys in circumstances where their primary school entrance lags.

These generally heartening studies did not follow children over a sufficient period of time to be able to say much about long-term effects.

With one exception, the studies reviewed did not examine explicitly how the quality of programmes related to outcomes. The Turkish study (Kagitcibasi 1996) compared children who had no preschool experience, children who were attended custodial settings

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8 The programmes evaluated differed in their settings, scope, type of delivery and the ages of children attended. All were directed principally to children from low income communities, included several components (usually health, nutrition and education) and involved some form of community participation. The studies varied in terms of the outcome variables used (age of entrance, promotion, repetition and drop out, and school performance). Of the 10 evaluations that looked at school progress, 7 found that participation was related to lower repetition rates, sometimes dramatically. Three showed no effect, one of which, however, was carried out in a system with automatic promotion so no difference should be expected. Of the 14 studies reporting on academic performance, 9 indicated that children from early intervention programmes performed better (one in rural but not urban contexts) and five found a negligible difference or none at all.
and children who attended “educational” centres. Although quality was not defined explicitly, the assumption was that educational preschools were of higher quality. As might be expected, results were better for children who attended educational centres. Another feature of this study was the inclusion of a parental education and support component. This was found to produce important results on the cognitive development and school performance of children as well as on childrearing practices in the family, related in part to changes in the self image and knowledge of the participating mothers.

Although most studies reviewed did not treat quality explicitly, it was evident in a number of the cases studied, that programmes would not meet rigorous definitions of quality developed elsewhere. They operated, for instance, with modest resources, para-professionals, and sometimes unfavourable class sizes but could nevertheless show an effect. Work with parents seemed to be one factor that helped to produce the effect. This is not to say that better quality would not have produced even better results, but it does suggest the importance of placing findings in context and of not applying (probably unaffordable) standards of quality uniformly at different moments in the development of early education systems.

Since my review more than a decade ago, additional longitudinal studies have come to my attention. These include:

Malaysia. A study carried out in 1980 in Malaysia (Zainal 1984) “Looked at children’s performance in primary school in Standard I and II. Results indicated there is a ‘head start’ advantage for those who have had preschool. However, the amount of advantage gained by attending preschool depends on the type of preschool centres attended and the type of primary schools attended as well as the location of both. There was also a close relationship between socio-economic status and the extent to which children benefited from preschool. Those children from more disadvantaged areas gained more than children from higher socio-economic groups.” (citation from J. Evans 1996)

Nepal. This recent qualitative and quantitative study examines effects of participation in preschools on children, parents and communities of participation in 38 ECEC centres in the district of Siraha (Bartlett, Arnold and Sapkota 2003). In addition to noting immediate cognitive and social development improvements, the study follows children into primary school to show that participating children, in comparison with non-participating peers: 1) were more likely to enrol in school and had better attendance records, 2) were less likely to be retained or drop out in grades 1 and 2, and 3) had dramatically better results on year-end examinations. Greater entrance, progress and performance of children helped to reduced social exclusion and gender inequity.

Mauritius. Eighty-three children were assigned to an experimental enrichment program (a quality preschool) from ages 3 to 5 years and matched on temperament, nutritional, cognitive, autonomic, and demographic variables with 355 children who experienced usual community conditions (control group). By the age of 10, the children who attended the quality preschool showed better social skills, more organized thinking and had more friends than the children who received no such enrichment. By the age of 17 and 23, the researchers found the positive effects still pronounced with the young adults
more socially adjusted, calmer and better able to get along with peers. As young adults, the children who attended the enriched preschools were up to 52% less likely to commit a crime. (Raine, et.al. 2003)

Turkey. Based on earlier research, the Mother Child Foundation in Turkey modified its programme for educating and supporting mothers so that it could be extended to a large number of mothers throughout the country. Evaluation of this extended programme (Bekman 2000) has shown positive and significant effects on children’s pre-readiness skills.

Brazil. According to a study by Barros and Mendonça (1999), “poor children who attended one year of preschool stayed in primary school 0.4 years longer than children who did not attend preschool. For each year of preschool, children ah a 7-12 percent increase in potential lifetime income, with the larger increases gained by children from families whose parents had the least amount of schooling.” (as reported in Young 2002, p. 6)

India. Children from preschools in rural villages of Gujarat scored higher on several measures of cognitive ability administered at the end of the second year of primary school than did a control group of children from the same villages who had not attended preschools, controlling for social differences. (Zaveri, S. 1993)

Additional studies that are not longitudinal but which show effects on children come from:

Bangladesh. Aboud (2004) reports results of an evaluation of a preschool program directed toward, and designed for, underprivileged children whose parents have not attained high levels of education. Attention is provided by a locally-trained teacher and four rotating volunteer mothers; children meet in groups of 25 to 30 for 2½ hours 6 days per week. The study concludes that that preschool children participating in a had considerably higher skills related to school readiness and more frequently participated in interactive play than a matched sample of children in a control group. The study also examined quality which was found to be low-to medium by international standards high according to South Asian standards. Preschools with higher quality scores had students who achieved higher cognitive scores.

South Africa. Short and Biersteker (1984) showed that South African children from lower socio-economic backgrounds who participated in an Early Learning Centre obtained mean scores equal to their middle-class peers attending a traditional preschool programme and greater than the children who did not attend any programme.

Guinea and Cape Verde. A study by Jaramillo and Tiejen (2001) showed that children from low income communities benefited more from preschool attendance than children from higher income families.

Bahrain. An experimental study conducted between 1989 and 1994 showed significant differences between children who attended preschools and children that stayed at home on a number of measured developmental outcomes
An international study. For approximately 15 years, the IEA Pre-primary Project has sought to identify how process and structural characteristics of community pre-primary settings affect children’s language and cognitive development (Weikart, Olmsted and Montie 2003). The study is unique because many diverse countries\(^9\) participated, using common instruments developed together, to measure family conditions, teachers’ characteristics, structural characteristics of the settings, experiences of children and children’s developmental status. Information was gathered for more than 5,000 children in 1,800 settings at ages 4 and 7.\(^{10}\) Indonesia and Thailand were included in the study. The following findings that are consistent across all of the countries have been reported:

- Language performance at age 7 improves as 1) the predominant types of children’s activities that teachers propose are free (letting children choose) rather than what have been labelled personal/social (personal care, group social activities and discipline) and 2) teachers’ number of years of full-time schooling increases.
- Cognitive performance improves as 1) children spend less time in whole group activities in which the same activity is done by all and 2) the number and variety of equipment and materials available to children in preschool settings increases. (High/Scope 2004)

In brief, we are accumulating evidence over a broad spectrum, from the Majority as well as Minority World, that ECCE programmes can have important effects on learning and development, but we have much less evidence from the Majority World about the specific effects of quality on outcomes. It should be noted that very little of this evidence comes from the lowest income countries or from Sub-Saharan countries. However, if the findings hold from elsewhere that ECCE programmes can make a difference and that potential effects are greatest for those from lower-income families, then we may expect a positive impact there as well, contingent however, upon how quality figures into the equation.

**Defining Quality: a first approximation**

From all of the above, what can be said about how to define quality?

**Quality defined in terms of Outcomes**

As can be appreciated from the foregoing, researchers have defined programme outcomes in many ways, for different groups (mainly children but also family and community) and at different points in time in the life cycle ranging from the immediate to

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\(^9\) Finland, Greece, Hong Kong, Indonesia, Ireland, Italy, Poland, Spain, Thailand and the United States participated in the longitudinal study.

\(^{10}\) At age 4, data were collected with three observation systems and three questionnaire/interviews. Children’s cognitive and language developmental status was measured at age 4 and 7. The observation systems collected information about how teachers schedule and manage children’s time, what children actually do with their time and the behaviors teachers use and the nature of their involvement with children – collected every 30 seconds for two 10-minute intervals on two nonconsecutive days. (High/Scope 2004)
Well into the adult years. Considerable emphasis has been placed on cognitive and
language development for younger children, on school progress and performance
(particularly during the primary school years) and on a set of social outcomes as children
become young adults. The operational definitions of developmental outcomes are
extremely varied, with relatively little overlap in the instruments used to obtain
information. The measures related to school performance and progress are much more
similar, but even in this case, when we move beyond age of entrance, repetition, dropout,
and school completion, to achievement as indicated by standardised tests or grades, the
systems used to measure these latter outcomes vary.

This article is not the place to discuss the controversial topic of assessment during
the early years. The reader is referred to the extensive literature on that theme. However,
the topic is crucial because, ultimately, a (if not the) key test of quality is whether or not it
has certain desired effects on children. The problem is to reach agreement about what
effects are desired, in the short and longer run, not only at an abstract level (in physical,
intellectual, social and emotional development categories, or, in terms of the child’s
relation to self, others and the world, or in terms of certain general “competencies” that a
child is expected to master), but also at an operational level. This becomes more and more
complicated as one moves from a particular local context in which the assessment is used
to guide direct work with children to a national or international context. At the micro level,
qualitative assessments (learning stories and children’s portfolios and other techniques) and
observation can be applied more easily but these are hard to aggregate to a system level and
are costly if used in national studies involving researchers. At the macro level, the
tendency is to seek standardized quantitative measures using tests and scales which may or
may not be equally appropriate for assessing all children, particularly in the short term
when children are still in an early education programme. But some people would argue
that even in the longer term, using results of the Program for International Student
Assessment (PISA) or other tests applied in international studies at the primary school
level, are narrow and imposed measures that are not adequate to describe learning and
developmental outcomes. National (or even sub-national) agreements about priority
outcomes and how to assess them are few and far between. Solving this assessment
problem remains a major challenge for the ECCE field.

At the same time, it would be unfortunate to put all our emphasis on quality
defined in terms of outcomes, however measured. Many factors and multiple environments
influence outcomes and it is hard to know how much to attribute to programmes and how
much to family and community environments. It is hard to sort out self-selection to

11 One might consult, for instance: Meisels and Atkins-Burnett (1998), Grigorenko and Sternberg
12 In the 1980s, in Chile, agreement was achieved on a locally-developed instrument to measure
psychosocial development using a Test de Desarrollo Psicomotor, 2-5 Años (Haeussler and Marchant 1985).
This test was administered through the national health system to monitor development over approximately a
10-year period. The results showed that although children improved their health, that did not automatically
bring an improvement in psycho-social development. UNICEF is supporting a project in 7 countries (Brazil,
Ghana, Jordan, Paraguay, the Philippines, South Africa and Turkey) to develop in each country a set of
nationally accepted instruments and child development standards to monitor the development of children prior
to school.
programmes or to know to what extent the early and positive effects of a programme may fade because, for instance, primary school is of low quality or not attuned to the changed children it receives. It would also be unfortunate to place all of our assessment in the future because a child lives in the present and should be entitled to positive and enjoyable experiences in the immediate environments in which she or he learns and develops. We turn then, to definitions of quality focussed on the structures and processes that characterise programmes.

Quality defined in terms of programme structures and processes

What are thought to be the important dimensions of quality of an ECCE programme? Researchers have sought out those dimensions of programmes that seem to have the greatest impact on short and longer term learning and development, giving them a priority place in definitions of quality. In an iterative process, these dimensions then get discussed, incorporated into instruments that are tried out and adjusted over time. In some cases, “standards” are developed for each of the various dimensions. These, in turn are used to review or certify programmes and/or are fed back into research studies.

From the examination of studies of ECCE quality, a long list of characteristics can be created organized in different ways. One way to look at these dimensions is to organize them as follows:

1. The quality of what is brought to the task (the inputs):
   - The physical environment and infrastructure (e.g., adequate space -- indoor and outdoor -- for children and teachers, lighting, ventilation, heating, functioning toilets, washing and cooking facilities, safety precautions, sufficient and appropriate equipment in good repair)
   - Sufficient toys, books and materials
   - The quality of the staff (teachers with a good level of education, well-trained in ECCE, with good motivation, and with low turnover)
   - A curriculum or programme approach with clear goals, that is proven, covers diverse areas or dimensions of development and is integral
   - Small numbers of children per class and per caregiver

2. The quality of how ECCE is organized and managed
   - Continuous planning, present and future, both at the centre and classroom level
   - Continuous evaluation and monitoring, of programme and children
   - Frequent supervision and accompaniment
   - Opportunities for continuous training and professional growth
   - Leadership that fosters communication, work as a team, information sharing, respect
   - Efficient administrative procedures

3. The quality of what happens in the educational process, involving:
• Frequent, warm and responsive interactions between caregivers/teachers and children
• Good communication that includes listening
• Activities that cover multiple dimensions of learning and development and encourage reasoning and problem solving
• Activities that are pertinent and culturally appropriate
• Equitable treatment for all children
• Opportunities to be in larger or smaller groups or alone
• Opportunities for children to initiate as well as listen
• Consistency in discipline and responsiveness
• Variation in the forms of communication used
• Good time management

Less frequently included in the equation but also noted as important contributors to the quality of care are such supportive and system-level characteristics as: Decent wages and working conditions (including support and resources), a regulatory framework, access to supportive and referral services, and stability of teachers and students.

4. The quality of the relationship between the ECCE programme and its immediate environment of parents and community.

• Continuous communication with parents about children’s progress
• Active parental involvement in school activities

Although one or two of the above dimensions, or even individual items, are sometimes pulled out and used to develop indicators of programme quality, doing so may give a distorted picture of quality, especially when raised to a system level. The child-to-adult ratio, for instance, is sometimes used as a proxy for quality because it has so frequently been found to be related to processes and outcomes. But a recent study in Mexico found an inverse correlation between this ratio and other dimensions of quality because higher ratios appeared in urban areas where children scored better on developmental tests, where teachers were better trained, where more resources were available, where there were no one-room preschools, where management was much more advanced, etc. (Martínez and Myers 2003)\(^\text{13}\) The formal qualification of teachers and/or their general educational level also serve as indicators of quality. These are logical because the teacher is obviously central to the educational process; however, good paper qualifications do not assure good performance and, particularly in minority world countries, many para-professionals or “empirical” caregivers do an excellent job. But the basic message is: a profile of quality is much more valuable than one or two indicators.

\(^{13}\) It was suggested that if this indicator was to be used, it should not be calculated by taking a national average (number of children divided by the number of teachers) but should instead be calculated for each centre in order to be able to say what percentage of centres still have ratios above, let us say, 20 to 1.
But how do these dimensions get defined at an operational level? Over the last 25 years a number of instruments have appeared that try to place these, or other, ideas about what constitutes quality together in a quality scale. Perhaps the most widely known of these is the Early Childhood Environmental Rating Scale (ECERS) that has now been used or adapted in many settings, including various in the Majority World.\footnote{The ECERS, in its Revised Version takes the following as its categories: Space and Furnishings; Personal Care Routines; Language and Reasoning; Activities; Interaction; Program Structure; Parents and Staff. The ECERS-E created by Sylva, Siraj-Blatchford and Taggart includes a discussion of previous versions and uses of the ECERS as well as of reliability.} According to Sylva, Siraj-Blatchford and Taggart (2003), versions of the ECERS have been applied in 20 countries that include India (Isley) Bangladesh (Aboud), Mexico (Proyecto Interdisciplinario 2004), Germany (Tiezte, Schuster and Rosbach 1997), England (Sylva, Siraj-Blatchford and Taggart), Chile (Aránguiz 2002), Kenya (Maura) and Ecuador (Nuestros Niños).\footnote{Internationally it is also possible to cite comparative work such as the excellent set of comparative studies of the OECD (2001) or the periodic reviews from the International Center at Columbia University, (e.g., Kammerman and Kahn 1997) but these studies do not depend on a particular instrument or present a particular definition of quality. The Consultative Group on Early Childhood Education has also worked on establishing a set of indicators for monitoring ECEC, with case studies in several countries (Consultative Group (2001)).} Other available instruments include:

The High/Scope Program Quality Assessment (PQA): Preschool Version (High/Scope 2003)

Instrument created by NAEYC to measure Developmentally Appropriate Practice (DAP) and for accreditation (NAEYC 2003 and 1998)

a “Self Assessment Tool” created by the Association for Childhood Education International (Wortham n.d.) and piloted in Nigeria, Botswana, China and Chile

the observational instrument created for the IEA Preschool Project (Weikart et. al 2003)

an instrument developed by the Step-by Step program (International Step by Step Association)

an instrument developed to evaluate quality in Madrasa schools in Kenya (Madrassa Evaluation Instrument n.d.)

PEAK (Pursuing Excellence at Kindergartens): a self-evaluation instrument developed by the Ministry of Education of Singapore.

Australia has created its own system for evaluating quality as part of a certification system. New Zealand has something similar which is applied as part of a somewhat more flexible review process. Innumerable other countries are certain to have developed instruments to get at “best practices” or to aid supervisory efforts or to create certification standards.\footnote{There is certainly no dearth of examples that might be drawn upon to try and move from general definitions of quality to an operational level.} There is certainly no dearth of examples that might be drawn upon to try and move from general definitions of quality to an operational level.
The overview of research presented and the examination of instruments to measure programme quality suggests that common dimensions and elements do appear and that it may be possible to identify general areas of agreement about what outcomes should be evaluated and about the characteristics of centres that should be related to those outcomes. However, and perhaps more important, there is also great variation, particularly as one works down from general categories (cognitive or language development, for instance) to the particular measures and instruments used to operationalise the categories. These differences are product of different cultural and social views, different theoretical perspectives and different personal experiences. Moreover, the areas of agreement may be determined as much by the fact that those deciding which outcomes and processes to examine are a restricted few who, for the most part, are part of a high-level professional and research community working in the Minority World (or trained in or influenced heavily by work from the Minority World).

It may not be surprising that although research results are often positive and sometimes consistent with respect to the variables they find that are related to outcomes, they do not generally and neatly come together to form one truth. But this fact leads one to ask whether it is appropriate to think of quality as something that can be uniformly described and measured and compared. Let us look at an alternative view which argues that a universal definition of quality cannot be attained, based merely on empirical research, because it must take into consideration differences in values and practices held by different individuals and groups who participate in ECCE programmes in different ways.

**Defining quality: An alternative view**

In their challenging book, *Beyond Quality in Early Childhood Education and Care*, Dahlberg, Moss and Pence (1999) characterize the predominant view of quality as follows:

“The concept of quality is primarily about defining, through the specification of criteria, a generalisable standard against which a product can be judged with certainty. The process of specification of criteria, and their systematic and methodical application, is intended to enable us to know whether or not something – be it a manufactured or service product – achieves the standard. Central to the construction of quality is the assumption that there is an entity or essence of quality, which is a knowable, objective and certain truth waiting ‘out there’ to be discovered and described.”

The vast majority of the studies we have described and the process of trying to convert research results into a definition of quality that links outcomes with inputs and processes are grounded in this tradition.

The authors contrast this idea with a post-modern vision that emphasizes multiple truths, uncertainty and the coexistence of many distinct points of view from which to describe reality. From this perspective a one-size-fits-all definition of quality cannot possible accommodate the diversity and subjectivity that exists in our world. The authors
would, therefore replace the present and dominant “discourse of quality” with the “discourse of meaning making” (p. 106) requiring dialogue and critical reflection grounded in concrete human experiences and particular contexts. Further:

“Whereas the discourse of quality speaks of value-free technical choices, the discourse of meaning making calls for explicitly ethical and philosophical choices, judgments of value, made in relation to the broader questions of what we want for our children here and now and in the future – questions which must be posed over and over again and which need to be related to even larger questions about ‘what is the good life?’ and ‘what does it mean to be a human being?’ The answers we give tell a lot about how we understand the position of the young child in society, as well as our forms of democracy.”(107)

According to this alternative view, all stakeholders should have an opportunity to offer their ideas about how quality should be defined, about what outcomes are desired and about what processes are most likely to lead to them. For the most part, as I have noted, this is not the process that is followed.

This post-modern approach to quality has a certain logic and attractiveness. It is clear that people do have different views of what developmental and educational outcomes should be and of how they can best be reached. It is common to hear, for instance, that parents place very heavy emphasis on learning to read early on, even at the preschool level whereas most early educators have been more relaxed about that. Whereas policy-makers and educational authorities who are responsible for making a system work are likely to think of resources and management criteria as essential elements of quality, teachers are likely to give the greatest weight to various features of the educational process. As we have seen, even within the category of researchers, very different views are evident, with some stressing cognitive learning and language and others concerned more about social and emotional development or if one contrasts research that begins from a behaviourist’s view with that beginning from a constructivist’s view. Different cultures may expect different kinds of children to emerge from an early education experience and favour different strategies to obtain those goals.

But if we adopt a post-modern, making of meaning perspective does that imply that we cannot and should not expect (some) basic agreement or that quantitative methods should not be used? If one starts from the premise that quality means different things to different people, it would seem that establishing one national definition of quality and a national set of standards is impossible, unless all those who think differently can somehow magically attain agreement through dialogue. It would seem inconsistent to try and establish one instrument, representing an operational definition of quality, to be applied in all settings in order to monitor quality.

But can a bridge be built between these two positions? I believe it is possible to move beyond the modern-post-modern dichotomy in defining quality and even possible to move that definition into a process of evaluation and monitoring. To do so it is necessary to:
• Put an on-going process of discussion and dialogue in the centre, involving parents, teachers, educational authorities, researchers, funders and other stakeholders, at national and local levels. This process will probably need to be guided by people versed in the arts of dialogue and negotiation.
• Begin that process with discussions of the kind of society desired and the kind of citizens needed to people that society. From this discussion can be derived areas of minimal agreement and complementary notions about the nature of the children desired and the kind of formation they should receive, with implications for the content, process and organisation of educational programmes. The results of such discussions will undoubtedly be more important than the specific conclusions reached.
• Use results from quantitative and qualitative ECCE research studies and evaluations as well as lessons learned from on-the-job experience as key inputs to such discussions.
• Make value positions explicit.
• Take the minimum areas of agreement as starting points to construct a definition of major categories and indicators of quality.
• Build outward by including in any operational definition and instrument, categories and indicators which may be important to some but not all stakeholders, allowing different groups to identify their own definition of quality within a broader view. Doing so will expand horizons of all participants and foster new reflection and dialogue. It will also begin to create a common language and common referents for different groups.
• Distinguish national and local purposes of monitoring and for applying descriptive instruments. Allow local additions to instruments created for use at a national level.
• Search for qualitative ways to evaluate children in context and over time that reflect personal and contextual differences but that feed into a broader, system-level process of monitoring.
• At the local level, introduce an element of self-evaluation by individual centres to serve as a basis for discussion and dialogue between “internal” and “external” evaluators who may have different views of quality.
• Make evaluations available to the public.
• Try to reach a workable level of agreement through successive approximations. Do not take any definition or instrument as final.

The foregoing may seem utopian to some readers. However, it is already possible to identify national settings in which this process is being implemented, tested and adjusted. New Zealand is a case in point where a continuous review process is carried out which the scope of the review (including priorities in the definition of quality that is to be followed and the possibility of including areas for review that are specific to their context and location) is discussed initially with each centre, a self-review is an important part of the process, parents are involved, the results of an external observation are discussed with each centre, feedback is provided and results are public so that discussion can continue. What seems not to have been done in the New Zealand case is to begin to aggregate results from the different reviews so that an overview of the system can emerge pointing to common
strengths and problems, with respective implications for policy and programming. (New Zealand, Education Review Office 2004)

An example from Mexico can also be cited. There, a dialogue initiated more than three years ago has led to the creation and field testing of an instrument that looks at several dimensions of quality including: the availability and use of resources, safety and health, the way in which the educational process is carried out, the management process, the relationship of centres to parents and the community. (Proyecto Intersectorial 2004)

The European Commission, through its Children’s Network, has proposed a set of objectives, or criteria, that quality ECEC services should be expected to pursue if not fully attain. The proposal starts from a view that “quality is a relative concept based on values and beliefs and defining quality should be a dynamic, continuous and democratic process. Quality should be found in the equilibrium between certain common objectives, applicable to all services while recognizing and respecting the diversity among individual services. There cannot be one final and static point of view about quality. The countries that reach, or are reaching, all or the majority of the objectives will want to continue developing their services.” (Comisión Europea, Red de Atención a la Infancia 1996, p. 9)

**An Alternative view of quality and EFA monitoring**

Even if it does not now seem possible to monitor the quality of ECCE programmes using standard indicators and a profile, and even though international comparisons of ECCE programme quality and effects are probably ill advised, it is possible to imagine productive forms of monitoring quality at the international level and as part of the EFA, phased in over time.

1. A first step in such monitoring would be to see whether a country has established a periodic national system for assessing ECCE quality. If not, what is being done to try and establish such a system? What approximations exist that provide information suggestive of the present state of the quality of ECCE programmes? At the moment the answer to the first question would be close to a universal “no” but it is likely that efforts are underway and that there are approximations. The reporting on quality in this case could not easily be condensed into a neat table and a qualitative analysis would be needed to group replies and draw conclusions. Countries might be classified as 1) having an established definition and a system to monitor it, 2) having an established definition but no systematic monitoring system, and 3) having neither a definition nor a monitoring system. The need to answer such a question should help put the question on the agenda and, it is hoped, lead to developing definitions and monitoring systems where that is not now the case.

2. Looking ahead, as national systems are created for monitoring quality, hopefully as a result of dialogue, and as instruments are created and tested, it will be possible to look at how indictors, defined and operationalised in each country, change over time. The comparison would be within the country, not with other countries. Are individual countries improving, according to their standards, or are they stagnant or even losing ground?
3. Finally, if and when national systems for monitoring quality are in place, it will be possible as well to create indicators of *inequality* that go beyond simply comparing enrolment figures for different populations and allow comparison of “access to quality” ECCE programmes.\(^{17}\)

\(^{17}\) Space does not permit a discussion of the relationship between the concepts of quality and equity. On one hand, equity can, and should be, a dimension of quality at the centre level; quality requires equitable treatment (gender, cultural and social origins) in materials and in how classrooms function. On the other hand, relative access to (participation in) quality schools can be used to develop indicators of equity at the national level by comparing different social and cultural and geographic groupings with respect to enrolment in quality schools.
Conclusions

1. There is impressive research evidence from a wide range of disciplines and perspectives that testifies to the importance of early learning and development, not only as it contributes to personal lifelong development but also to more general human and social development goals.

2. There is strong evidence that learning and development can be promoted through ECCE programmes, with immediate, short- and long-run effects. This seems to be most pronounced for language and cognitive development but also involve effects on social development and behaviour. Although all children may benefit, there is evidence that disadvantaged children may profit the most.

3. Research suggests that the quality of the structure, organisation and processes found in programmes is important and has an effect on outcomes. In addition, there is evidence that negative effects can occur if quality is low. Elements of quality that were consistently identified and seem to make a difference on outcomes identified include:

4. Although seeking high quality is important it is also possible to find significant and even dramatic effects of programmes which are of minimal quality, judged by standards of the Minority World. Emphasis, then, should be placed on assuring that programmes are not of such low quality that they produce negative or negligible (from a cost standpoint small results that may not justify the expenditure and should be redirected toward a strategy that is more effective) and on upgrading low quality programmes so they produce better outcomes.

5. There is some evidence that long hours in childcare for very young children can have a modest negatively affect on parent-child interactions and on subsequent social behaviours, independent of programme quality, even while effects are positive on language and cognitive development. In the case of negative effects it is not clear to what extent the negative effect co-varies with particular characteristics children, caregivers and home contexts.

6. It is clear that contextual factors are important. The family and home have greater effects on learning and development than programmes, particularly at very young ages. Context can support, moderate or negate programme results. Accordingly, the quality of the relationship between centres and families needs to be consciously incorporated into ECCE programmes.

7. Monitoring ECCE programmes by following changes in gross enrolment levels is a useful, but limited, way of monitoring and assessing ECCE programmes. Indicators of equity and quality are also needed. Differential quality of ECCE programmes is often related to socio-economic and cultural conditions so that, even as enrolment expands to include more children, inequity may increase. Children from families with an economic or
social advantage enter higher quality ECEC programmes while children from low income families at the margin of society may have access only to programmes of poorer quality.

8. Although national systems that periodically evaluate young children and/or ECCE programmes may exist, no example of such was found in this review. Approximations include one-off (but not periodic) national research studies evaluating a sample of children and examining effects of ECCE on children over time. Also, examples exist of periodic evaluations of children at local levels carried out in virtually all localities, but differences in the form of evaluation or simple failure to aggregate results means no national picture is available and reported.

9. Most definitions of quality come from “experts” and are based on a scientific position that quality is inherent, identifiable and universal. This contrasts with a vision of quality as uncertain, variable and contextual, requiring negotiation among different viewpoints. This latter viewpoint and the idea that quality cannot be defined solely on the basis of research poses a challenge to international (and even national) comparison. The definition of quality varies and must be negotiated. Parents and teachers must be involved in that negotiation.

10. Nationally developed instruments to measure programme quality can be very useful if they have passed through a local process of negotiating goals that orient the instruments, make values explicit, incorporate results of research about factors that produce desired results, take into account both structural and process dimensions, have been field tested and are viewed as perfectible. Quantitative evaluations should be complemented by qualitative evaluations that help interpret the findings.

11. International comparisons of ECCE programme quality and effects are probably ill advised. However, international monitoring of national changes in quality can be carried out. A first step in such monitoring would be to see whether a country has established a periodic national system for assessing ECCE quality and whether results are reported. A second step would be to see how such measures defined and operationalised in each country, change over time. When definitions of quality have been produced, these can be incorporated into the monitoring of inequality.

12. To further the process of monitoring, countries participating in EFA should be asked to present information about how they define, in concept and operational terms, quality in their ECCE programmes. Having to answer this question should promote dialogue and, it is hoped, move the discussion of quality to a different level.
References


Canadian Child Care Federation (CCCF). (June 1991) “National Statement on Quality Child Care.” Ottawa, CCCF.


“Madrasa Evaluation Instrument”. Mimeo obtained from the Aga Khan Foundation which funds a Madrasa project in Kenya.


National Childcare Accreditation Council (2001). Quality Improvement and Accreditation System Handbook. ________: NCAC


