



# Vversterk in international perspective

Early childhood education and care in six countries

Sardes, december 2013

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Onderdeel van de Vversterk-box

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# Preface

**On Tuesday 1 October 2013, Sardes hosted an international round table meeting within the context of its professional development program *Vversterk*. The title of the meeting, *Towards a Comprehensive Approach of ECEC*, reflected a current trend to integrate education and care within ECEC. We asked a number of outstanding scholars from six different countries (Flanders, Germany, Netherlands, Norway, the UK and the US) to write a position paper in which they outline the current state of ECEC in their country, the specific focus points in policy and practice, and challenges for the future. The meeting started with six policy makers giving their reaction on the papers. In this volume, the six papers are presented, as well as a short report of the meeting with a number of policy perspectives for the Netherlands.**

## The international context

Internationally, there is a keen interest in actualizing high-quality early childhood education and care, and rightly so. It is essential that young children are provided with a solid foundation for their later development. The ideas of Nobel prize laureate James Heckman provided a firm ground for investment and policy decisions in favor of ECEC. Around the globe, countries invest in ECEC, by developing policy, and introduce a multitude of ECEC programs, based on diverse educational perspectives. The core objective of any high-quality ECEC program is to promote the optimal development of young children, but individual programs may have different focusses. Some programs provide a relatively structured curriculum for ECEC activities, while others offer general guidelines that may be applied creatively in different ways, depending on the children's interests. Some programs have a strong parental component, while others are more center-based approaches with focus on the quality of materials and teachers; some programs try to combine these approaches.

## Vversterk

The Dutch Ministry of Education, Culture and Science embarked on the *Vversterk*<sup>1</sup> program in 2006, a large-scale project that aims to improve the quality of ECEC in the Netherlands. *Vversterk* encompasses training of and support to ECEC professional staff at day care centers, preschools, and kindergarten-level grades at primary schools. Almost 34.000 ECEC teachers and staff were trained. Moreover, *Vversterk* assists teacher training colleges and vocational schools in anchoring ECEC in student curricula and offers specially designed ECEC teaching material. It also supports policy developers at municipal level through regional meetings and customized ECEC consultations. Finally, *Vversterk* provides a training course for managers of day care centers, preschools and primary schools, who are crucial in the implementation and further development of ECEC in their own sites. The central coordination of *Vversterk* lies in the hands of Sardes, an independent agency in the Netherlands that provides consultancy and R&D services in the field of education and welfare. In the implementation of the project, Sardes collaborates with numerous national and local organizations and institutions.

<sup>1</sup> *Vversterk* started in 2006 and will be completed by the end of 2013. The name of the project blends the Dutch term *VVE* (Preschool and Early School Education) and the word *versterk* (strengthen).

At the time of writing, *Vversterk* has come to its end phase. Besides looking back on the achievements and output of the project, it is also time to look forward to new trends, developments, questions and issues that arise both internationally and in the local Dutch context.

The general purpose of the international round table meeting was to position the *Vversterk* activities and the post-*Vversterk* activities in an international framework. What are new developments and new questions, issues, challenges in ECEC in these six countries? For instance, in some countries ECEC seems to be advancing from a kind of intervention for children at risk towards a more mainstream and comprehensive approach, promoting the broad development of all children. Countries differ with respect to integrating education, care and health: some have different systems, others have integrated systems, including all aspects of care, health and education of young children.

The authors of the country position papers were asked to use the following ten guiding questions with respect to the situation in their own country:

1. Is there any discussion about the combining of education, care and health into one integrated system?
2. What different approaches are there, e.g. center-based vs. home-based, separate vs. comprehensive approaches (integrating education and health)?
3. Is there systematic attention to monitoring and data collection in your country? Do you have any data about the effectiveness of ECEC systems?
4. Is ECEC aimed at specific target groups (children at risk) or should there be a universal provision for all children, enhancing children's broad development? If the focus is on children at risk, is non-participation considered a problem and how is this encountered or even *enforced*?
5. Can you give some information about the national ECEC policy, with respect to the different policy elements (materials (program, curriculum), professional capital, organization, the role of parents)?
6. Is there a national curriculum for ECEC in your country? If so, what would you consider the pros and cons of a national curriculum? If not, what are the alternatives and what would you consider as pros and cons of this alternative system?
7. Is there a specific policy on professional development of ECEC staff? Is this a national or a local concern?
8. In what way do the ECEC programs involve parents? Is there a 'educational partnership' between parents and (pre)schools?
9. With respect to the role of quality improvement and assurance: given the premise that all forms of ECEC should be regulated and monitored, how does quality control and quality enhancement work in your country? What are specific topics in the quality control & enhancement systems? (leadership, accreditation, professional development ...).
10. Please add a paragraph in which you give a personal view on the future of ECEC in your country. Which dimensions of ECEC policies does your country wish to prioritize in the future? Include trends, challenges, opportunities and threats.

The authors of the six country papers give a clear insight on these aspects in their own country, although there are differences in perspective. In their US paper, Hiro Yoshikawa and his colleagues summarized a large body of research and found support for their claim that high-quality early childhood education programs are among the most cost-effective educational interventions and are likely to be profitable investments for society as a whole.

Edward Melhuish describes the findings of two longitudinal research projects (EPPE and NESS) to show the positive effects the Sure Start program had on young children, which means a significant narrowing of the gap in results between the poorest children and their peers. He concludes that the poorest children were improving more than others from a universal provision for three and four year olds.

As Monika Röthle describes in her paper on Norway, the Norwegian Framework Plan is an example of an intertwined education and care approach, with the perspective of the ECEC-setting as an inclusive community and the fostering of children's friendship and play. Norway has experience with a National curriculum, and the main lesson here is that it is easier to get the curriculum accepted if preschool teachers feel their work is recognized as a profession. If the curriculum prescribes too detailed activities and methods it may be perceived as control. Allowing room for and supporting professional judgment will enhance the given responsibility and the reflective practice of teachers.

The German ECEC system faces three major challenges, as Wolfgang Tietze points out. There is a quantitative challenge of expanding the number of places, especially for the under 3 year olds. Germany's qualitative challenge is the low quality of about 10% of all ECEC provisions which need immediate support for quality development. This also calls for a strong quality monitoring system. Finally, there is the challenge of broadening the function of ECEC provisions, beyond the focus on education and development, towards "Family Centers" or "Parent Child Centers".

In his paper on Flanders, Jan Peeters is making a case for a Bachelor's degree to break the cycle of deprofessionalisation. Professionals with a Bachelor's degree seem to be able to pass on the 'reflective practitioner' attitude to colleagues with only a secondary education. There will be a new 'Pedagogy for the Young Child' degree at Bachelor level in Flanders. Students will learn to coach employees with lower qualifications, and to provide pedagogical support for family day carers.

Jeroen Aarssen, Frank Studulski and Paul Leseman argue in their paper about Dutch ECEC, that the organization of ECEC is still fragmented in the Netherlands. There is an ongoing debate about the desirability to create more integral facilities for children between 0-6 years, integrating child care, health, and education. On the national level, new regulations and guidelines are not foreseen. On the local level, however, there are examples of initiatives in which integration of services is well underway. There is a need for solid research that should provide evidence to show the (in)effectiveness of such an integrative approach.

The round table meeting gave ample opportunities to discuss these different issues and to compare the actual situation of ECEC in the six countries. The meeting ended with a list of suggestions for the future agenda for the young child in the Netherlands. We think the collected papers are relevant for the discussions in the coming years about how to advance ECEC, in such a way that all young children can be given the best possible start.

# 1. Comprehensive report



## Report on the international round table meeting Towards a Comprehensive Approach of ECEC

Tuesday 1 October 2013 at Sardes, Utrecht, the Netherlands  
Report by Paulien Muller, 2013

### Participants:

Paul Leseman (Utrecht University)  
Edward Melhuish (Birkbeck University London, University of Oxford)  
Jan van Ravens (Yale University)  
Roger Prott (freelance consultant, lecturer and author, Germany)  
Wolfgang Tietze (Free University Berlin)  
Jason Sachs (Boston Public Schools)  
Hiro Yoshikawa (New York University)  
Tove Mogstad Slinde (Ministry of Education, Norway)  
Monika Röthle (University of Stavanger, Norway)  
Jan Peeters (VBJK, Ghent University)  
Jeanet van de Korput (Bernard van Leer Foundation)  
Christele van Nieuwenhuizen (Kind en Gezin, Belgium)  
Wyske Boomsma (Ministry of Education, the Netherlands)  
Karin Westerbeek - chair (Sardes)  
Jeroen Aarssen (Sardes)  
Frank Studulski (Sardes)  
Hans Cohen de Lara (Sardes)  
Berend Schonewille (Sardes)  
Paulien Muller - report (Sardes)



On Tuesday 1 October 2013, Sardes hosted an international round table meeting within the context of its professional development program Vversterk. Vversterk is a nationwide professional development program for ECEC professionals in the Netherlands that ran between 2006-2013, financed by the Dutch Ministry of Education, Culture and Science. The title of the meeting, Towards a Comprehensive Approach of ECEC, reflects a current trend to integrate education and care within ECEC. A select group of academics and policy makers discussed six country reports on ECEC and reflected on a number of core questions regarding ECEC, such as ‘Is specific policy for children at risk necessary or do we aim at all children?’ and ‘What should be the profile of professionals working with young children?’ In this report, we have structured the country information and the outcomes of the discussion under seven themes. In the final section you find the policy recommendations on ECEC that the participants formulated for the Dutch government.

## Highly qualified staff

“You just want teachers with the highest quality on the most disadvantaged children.” All participants agreed that the qualification level of staff is the key variable for ECEC quality. Several participants stressed that more professionals with a bachelor degree are needed in order to establish the desired quality. Monika Röthle even raised the question if a master level is needed for ECEC coaches. However, the practice in most countries is that most, if not all, work in ECEC is done by lower qualified or unqualified staff.

For countries which have experience with higher qualified staff, the challenge is how to attain and retain these professionals in the ECEC sector. Several explanations are offered why it is difficult to attain professionals with a bachelor level - and particularly men - in ECEC provisions. Salaries are generally low compared to other educational institutions. Career perspectives are limited; there are few possibilities to climb to a higher or more challenging position. And, as mentioned by Monika Röthle, higher qualified professionals in ECEC indicate that they miss a professional atmosphere; that according to them there are not enough professional discussions.

Hiro Yoshikawa stressed the relevance of connecting teachers with what brought them into their profession in the first place. This is where they get their motivation from. According to Jason Sachs, ECEC jobs can be made more challenging by profoundly grounding the work in child development.

## Professional development

Ms. Wylske Boomsma from the Dutch Ministry of Education, Culture and Sciences, explained in her presentation that there is no tradition in the Netherlands of having one, national ECEC curriculum, but instead there is a variety of certified ECEC programs from which ECEC organizations may choose. The Ministry issues quality standards and a system of quality assurance to assure the educational goals are met. In this light, ongoing professional development is an important means to maintain quality.

In order to establish and maintain a professional ECEC organization, on-the-job training and coaching is more important than taking courses and the initial qualification levels of the staff.

Several aspects were mentioned that are crucial for developing a professional organization: training and coaching must be recurrent instead of occasional. Jan Peeters pointed out that throughout EU-countries by far most financial means are aimed at the highly-qualified professionals and hardly any money is spent on schooling the assistants. But schooling of assistants is important as well, because they often originate from the same minority groups as the children and form the bridge between the ECEC provisions and the parents. Another reason to invest in assistants is that they sometimes perform teaching tasks. Thirdly, they usually perform most of the caring tasks.

Hans Cohen de Lara stressed the relevance of educational leadership in ECEC. It is crucial that ECEC leaders take responsibility for the professional development of their organizations, by making training and coaching a normal aspect of daily routines and by offering a safe and transparent atmosphere where people can learn. If these leaders take their role, it might be cheaper for a government than allocating their resources directly to the professionals on the working floor.

Coaching can take different shapes and forms. Sometimes coaches are internal, sometimes external. Tove Mogstad Slinde explained that in Norway the law proscribes that ECEC provisions are visited by a coach on a weekly basis. Edward Melhuish stressed the importance of trainers having practical experience.

Hiro Yoshikawa shared the experience of a project in Chili where teachers and parents gather every two to three months in order to develop their own goals together and to evaluate progress. This way of generating their own context of quality motivates the whole network.

At the end of the day, Jason Sachs showed a short video clip (available on the Boston Public School web site) of a teacher who consciously asked for her colleagues' advice on how to carry on with a project and who received valuable feedback. The clip revealed how a stimulating environment for learning is created by using mobile phones with camera function and laptops. Creating a digital community can be a way to stimulate professionals to jointly reflect on their work.

## Testing

The way in which the testing of young children is perceived differs greatly between countries. While in the US testing is self-evident, in Norway testing young children is no common practice at all.

All participants agree that testing can be useful under two conditions:

1. The goal must be very clear.
2. The testing itself must be executed very professionally in order to gain reliable results.

Ad 1) A distinction is made between formative testing and summative testing. Edward Melhuish mentions that in the UK summative assessments were recently introduced, in order to define if children have reached a certain threshold. Summative testing gives insight: which groups of children benefit to what extent from ECEC? If used appropriately, testing is used to reallocate resources. But there risks too. Edward Melhuish warns that testing must not be used as a hammer for schools or teachers. Jason Sachs warns: 'What you test is what children become'. So first you have to

think comprehensively about what your children become, then you put that in an instrument, and then it adds something. In the US a lot is being measured in ECEC, with instruments like ECERS and CLASS. Also language and math instruction are measured, and Jason would like to extend the measuring to other subjects as well. The important question is how these data are being used. In Boston they are evaluated with coaches, in cooperation with the teachers.

Paul Leseman warns: teachers tend to perform according to the test, and put the emphasis on the elements that are tested. According to him the most important question is: does it help to improve practice? Therefore he is critical about the Dutch government policy to publish the testing results of all schools. Instead he would like to put an emphasis on evaluating what teachers do; to focus on the practice in classrooms and preschools.

- Ad 2) With regard to the quality of testing: Jan van Ravens mentions the bias of ECEC inspectors, who tend to focus more on structure than on process. There is discussion amongst the participants from which age on children can be tested. However, all participants agree that formative testing can be a useful tool for teachers themselves. Wytse Boomsma stresses that testing is only one of several instruments that teachers use, besides instruments such as observation and information from the parents. Paul Leseman mentions the value of self-evaluation instruments for ECEC professionals. Christele van Nieuwenhuyzen in her presentation mentions the nation-wide introduction of the MeMoQ project (Measuring and Monitoring Quality), which contains an internal and an external evaluation instrument.

## Integration and coordination

All participants (without exception; Wytse Boomsma from the Dutch Ministry in a personal capacity) favored an integrated system for children 0-6 over a split system. However, national circumstances can be such that creating such a system is not a realistic option, at least not in the short term, as is for instance the case in Belgium and the Netherlands.

Several participants drew attention to the fact that many more actors are linked to ECEC than only the kindergarten, pre-school and school. Health organizations, social work, neighborhood networks were mentioned. As it is impossible to integrate all these institutions; therefore besides integration coordination is also indispensable - as Jan van Ravens explained. This is also what happens in the 'houses of the child' in Belgium, which actually represent a multidisciplinary partnership aimed at the young child.

Hiro Yoshikawa described the end goal of integration as social inclusion. Centers can act as hubs to provide in this respect, but you also need networks at the lower levels, of parents and community leaders.

## Progressive universalism

Having a system for all children 0-6 years has several advantages over aiming ECEC exclusively at children from disadvantaged backgrounds. Firstly, when all children participate, taking part in ECEC-provisions is not stigmatizing for children and parents from disadvantaged backgrounds. Secondly, Monika Röthle pointed out that children from disadvantaged backgrounds benefit from the presence of more advantaged peers. This is

confirmed by a study of Paul Leseman and others on mixed groups in the Netherlands. And studies in the UK show that universal facilities benefit all children but benefit poor and minority children even more. Thirdly, from a national perspective it is advantageous that all children benefit from high-quality ECEC provisions. Tove Mogstad Slinde described the situation in Norway where the participation rates are now almost 100%, even among migrant children. Of course, this requires an enormous economic investment. Yet, Jeanet van de Korput mentioned that in a study issued by the Bernard van Leer Foundation the costs of all children participating in ECEC were calculated as neutral. According to Jan Peeters, the investments in such a policy increase after several years, when highly qualified professionals must be attained and retained. This can only be realized by offering them a proper salary, as “systems cannot be built on saints”. Jason Sachs described the situation in Boston, where preschool is available to all children from disadvantaged backgrounds - which is highly unusual within the US.

For most countries it is economically impossible to offer high-quality ECEC to all children. An alternative suggestion then is to target high quality ECEC on certain regions instead of selected groups of children. An instrument for designating those areas is for instance EDI (Education for All Development Index). This approach is called progressive universalism: ECEC services are available to all, but in a more intensive form to all that need services most. Another advantage of this approach, mentioned by Paul Leseman, was that you can target more specifically on specific needs instead of on general indicators. (However, this approach is not a solution for *all* children from disadvantaged backgrounds but only for those who live in disadvantaged areas.)

## Parents’ role in ECEC

Studies in the UK show that centers who offered highest ECEC quality were also best with parents. “Capitalize on parents’ wish to invest in their children’s future”, that is the motor behind parental involvement in ECEC according to Jason Sachs. However, in the case of parents from disadvantaged backgrounds a certain degree of fatalism first has to be overcome. This fatalism - in the form of low expectations about what their own children will achieve in life - is a very understandable defense mechanism, as Edward Melhuish explains: it diminishes their own parental role in case things turn out the wrong way. Several good practices were mentioned. Jeanet van de Korput mentioned the *Opstapje* projects, where facilitators with a migrant background visit migrant parents at home. In Belgium nurses start with home visiting almost directly after the birth of a child. In Norway you can find ‘open kindergartens’ where professionals do activities together with parents, and use role modeling to show parents other ways of being together with their child. Paul Leseman mentioned the ‘baby clinics’ (*consultatiebureaus*) in the Netherlands, where professionals have the opportunity to talk with every parent - thus preventing stigmatization. Because stigmatization is a real risk, as Edward Melhuish stressed several times: poor parents and migrant parents are confronted with stigmatization constantly. They are therefore very sensitive in this respect and ECEC professionals and policymakers should take that into account.

Parental involvement is crucial; all participants agree. Because it is the accumulation of day to day activities, at the center and at home, that works, as Jason Sachs explains. The concept of ‘home learning environment’ from the EPPE study (UK) is very adequate. Several suggestions are made to strengthen the ‘HLE’. According to Jan van Ravens an accreditation system can motivate home-based caregivers (nannies and relatives, child-minders) to optimize their home

environment and activities. Hiro Yoshikawa mentions three aspects with regard to parental involvement: parenting behavior, parental health, parental education and income. He stresses that an adequate home learning environment does not only involve parental cognitive and teaching skills; for a child it matters which position parents take in life and which example they set in that respect. Therefore a program was set up where parents can bring their child, but the center expects parents to work on one of the three aspects: a parenting course, work on mental health problems or focus on education and income, f.i. with a job training. Thus parents work on something that improves their own life.

## Education, care and educare

In discussions on ECEC there is a tendency to separate care from education. This is partly the result of the fact that in ECEC the different worlds of health and care on the one hand and education on the other hand meet. In his presentation Roger Prott describes how the specific situation in Germany with the Länder as a layer in between the state and the municipalities has provided space for the development of the ‘educare-concept’: a social pedagogical approach in which education and care are combined. However, there are several factors that undermine the educare-concept in ECEC centers. Quantity aimed measures, for instance of an economic nature, always predominate over qualitative measure. In Germany too many enforced policies of a school-like nature were implemented at the same time. And additional policies sometimes had contradictory effects, for instance when different programs were implemented at the same time. Also neighboring agencies had an enormous influence, like safety regulations and health regulations. Roger Prott stresses that care and education should not be separated in the context of the young child.

According to Paul Leseman the integration of education and care can also be realized in terms of the day schedule. He gives the example of shared book reading: “if you don’t schedule it, it won’t happen” is his experience. The experience of Jason Sachs in Boston is that the most important challenge for teachers is to promote their reflective thinking. How can you make teachers think about the thinking of children? Edward Melhuish recognizes this phenomenon. In the EPPE study only 15% of the teachers showed sustained shared thinking of a high quality. The difficulty is that sustained shared thinking requires a whole set of implicit skills. There is no other way than facilitating a continuous learning process for teachers, using techniques like video interaction and coaching on the job.

## Policy recommendations for the Netherlands

- mentoring/coaching on site (2 times per month);
- equal level of compensation and education required as primary school teachers;
- explore home learning environments - critical issues (what? how? effects?);
- work towards one integrated system for children 0-6 (with Norway as a dot on the Dutch horizon);
- establish a quality monitoring system and carry out this monitoring frequently;
- initiate a public discussion (media) what ECEC is good for to reach financial support;
- integrate child care and education under one system, one ministry, one bureaucracy;
- increase the professional competence, leading to pedagogical coaches and/or reflective practitioners;
- provide a stable career structure within ECEC;

- maintain a national register of professional institutions - as in Denmark, Norway etc.;
- competence is the key, also to the integration of education and care;
- moving toward progressive universalism in childcare;
- investing in learning organization and pedagogical management;
- keep on targeting pupils with a risk of disadvantages;
- integrate all early learning services and create a basic service for all children with additional services for those needed;
- better quality training leading to better qualified pedagogical workers;
- children younger than 1 year only in good and small scale childcare plus extension of pregnancy leave and
- favor on the job training and coaching, forming communities and incorporating digital communities for reflection.

## 2. Country position paper on ECEC of the Flemish Community of Belgium

Dr. Jan Peeters VBJK Innovation in the Early Years Ghent University Flanders

Based on the Flemish country reports of SEEPRO, (Peeters, Buysse, 2010); New developments of Flemish childcare policy and practice EECERJ, (Vandenbroeck, Peeters, 2009); the country reports for the ECEC-ESL research, (Peeters, Van Laere, Hulpia, Van Landeghem, 2013)

### Policy organization

Belgium is a federal state with three communities<sup>2</sup> and three regions<sup>3</sup> next to the federal level. During the last few decades, policy domains and competences have been divided over the different levels of authority. Policy areas such as family services, childcare services<sup>4</sup>, education, youth work and welfare are regulated at the community level. Basically, the same kind of services is offered to families in all three communities but different emphases or nuances do exist. The three communities of Belgium have split systems for ECEC, the childcare facilities for the 0-3 are under the responsibility of the department of Welfare (with governmental organisations that are responsible for the quality policy (Office de la Naissance et de l'Enfance, Federation Wallonia-Brussels (French-speaking part), Kind en Gezin, Flemish Community of Belgium (Dutch-speaking part), Kind und Familie, German Community of Belgium (German-speaking part) and the pre-primary education (kleuterscholen, écoles

<sup>2</sup> The Flemish, French and German communities. Out of a total population of approximately 10.5 million, about 6 million live in the Flemish community, some 4 million in the French community and about 73.000 in the German community. Please note that, the term "French Community of Belgium" (as stated in the Belgian Constitution) has now been changed into 'the Federation Wallonia-Brussels' (Fédération Wallonie-Bruxelles).

<sup>3</sup> The Flemish, the Walloon (including the German speaking part of Belgium) and the Brussels Capital region.

<sup>4</sup> Including e.g. preschool day care (0-3) and out-of-school care (3-12). 2013.

maternelles) are under the responsibility of the department of Education and are integrated in the system of elementary education (2,5-12 years). Together with primary education, pre-primary education (or Early Childhood Education – kleuterschool, 2,5-6) makes up elementary education and falls within the scope of the legislation on elementary education. Since 2003, new schools are required in the Flemish Community to offer both pre-primary and primary education. Most pre-primary schools have age groups (3 or 4 classes), but some schools choose for pedagogical reasons to bring children of different age in one group (2,5-6).

### *Financial arrangements*

In most childcare centres (0-3) the parents pay according to their income. But some private child centres get no subsidies and decide on their own price-setting. The average costs for parents for childcare (0-3 years) and out-of-school time provision for elementary school: parents contribute 59.7% of costs in subsidised family day care and 26.2% of costs in subsidised centre-based care (OECD). The pre-primary education (2,5-6) is free for all children except for meals and extra activities. There is a maximum price to pay for parents of 20€ per pupil per year in pre-primary schools.

## **Participation rates**

The participation rates are quite high in Flanders:  
49.4% of the 0-3 use childcare services regularly (Kind en Gezin, 2012).

From the age of 2,5 years, all children can attend early childhood education (pre-primary education - kleuteronderwijs) which is a part of elementary education ECE, which ends in June of the year in which the child turns six years. In 2008-2009, just 2.28% of 2,5-year-olds were not enrolled in the induction class, 1.48% were not enrolled in the 1st pre-primary class, 1.17% in the 2nd pre-primary class and 1% in the 3rd pre-primary class. Still, the government is trying to ensure that all children attend pre-primary education. The Minister of Education has taken measures so that all children from the age of 2,5 years should attend the 'kleuterschool' (pre-primary education) regularly. Together with Kind en Gezin, measures are being taken to encourage the approximately 1% of parents who currently do not send their young children to school.

## **Discussion on an edu-care system?**

In spite of the Communication of the European Commission on ECEC in February 2011 in which the Commission argued for an integrated concept of care and education for the 0-6 years olds, the integration of childcare into a broader pedagogic setting, either in education or in the social welfare sector, was not taken into consideration. At the moment there is no political drive in Flanders to realize this. But the Flemish Educational Board (VLOR) responded to the Communication of the European Commission by arguing for a smooth transition between childcare and education. The reason for holding on to the split system is not clear, but presumably the fear of a higher cost, as a result of such an integration in education (higher qualification requirements, and higher salaries) played a role here. Another possible reason is that in Flanders (as in the French-speaking Community of Belgium), in contrast with many other countries, the responsibility for childcare lies with strong and effective governmental organizations (Kind en Gezin and ONE) that exist since nearly hundred years (1919). Other European countries do not have such a long tradition in quality



monitoring of the childcare sector by a strong organization, making an integration in the educational sector a more obvious solution and not creating so much resistance. In pre-primary ('kleuterschool') much attention has been given to the integration of care and education by engaging a so called 'care-teacher' in every elementary school.

## Inspectorate and Quality monitoring

Since 1919, a national organization is responsible for monitoring and assessing quality in the childcare sector for children from 0-3, and after the State reform of 1984 three governmental organisations have taken over this responsibility: the Office de la Naissance et de l'Enfance, for the Federation Wallonia-Brussels, Kind en Gezin for the Flemish Community of Belgium and Kind und Familie, for the small German Community of Belgium. Until the eighties, the control was mainly on the medical-hygienic aspects of care. Since 2006 the quality of all childcare centres are controlled on a regular basis by the Agentschap Zorginspectie (Agency for Care Inspectorate), which is responsible for the whole welfare sector.

In 1992, Kind en Gezin (Child and Family) introduced quality rating scales for the inspectorate based on the American ITERS and ECERS scales, that also measure the pedagogical quality. There were also instruments developed that were successful in supporting the centres in increasing the quality (OECD, 2006).

In 2004, a new participatory approach on quality assessment (Kwaliteitsbeleid) was introduced, defining quality as a negotiable construct, jointly determined by parents, childcare workers, children, and the management board of centres (Peeters, 2009). A need for more concrete guidelines for the pedagogical quality was also expressed. Child and Family therefore introduced assessment scales on 'well-being' and 'involvement' developed by Ferre Laevers and his team at the University of Leuven (CEGO). In 2006 a large-scale study was executed on the quality of childcare by using these scales (Laevers et al., 2006).

Today, subsidised services have to meet minimum quality standards and have to develop a quality handbook in which they describe the procedures of how they evaluate quality, how they engage parents, how child carers are trained. Independent services require registration only, but most of them choose to work under the supervision of Kind en Gezin. This means that they have to meet certain quality standards. Both types of services are subject to unannounced checks by Kind en Gezin (OECD, 2012).

Nevertheless, there is a gap in monitoring the quality of childcare between the subsidized and the independent sector. In April 2014 a new law on childcare for the 0-3 will be implemented (Decreet Opvang van baby's en peuters) and as a part of this new law the quality monitoring system will basically be the same for all childcare services. For these reasons, Child and Family is currently commissioning a study (MeMoQ) to develop a scientifically based tool that allows to measure the educational quality of the entire childcare sector. Based on a recommendation of OECD Starting Strong, the researchers are developing a monitoring process that will engage and support staff, parents, and children (OECD, 2006: 126; Kind en Gezin, CEGO and Ghent University, 2012).

The pre-primary schools (kleuterschool) for children from 2,5-6 are inspected on a regular basis to ensure that the 'developmental goals', defined by law, are being met. 'Developmental goals' are the minimum objectives in terms of knowledge, understanding, skills and attitudes that children must pursue. These goals deal with a number of basic competences children are supposed to have in the area of physical education, artistic education, language training (Dutch), world orientation and mathematical initiation. The word 'development' refers to

a process of growth, possible ‘pathways’ to achieve results. Every toddler goes through this process his own way, on his way and at his own pace. Developmental objectives are aims. They do not have to be fully achieved but they are the ultimate aim.

There are developmental objectives in five subject areas: ‘physical education’, ‘expressive education’, ‘Dutch’, ‘initiation into mathematics’ and ‘environmental studies’. The educational inspectorate of the Flemish Ministry of Education and Training acts as a professional body of external supervision by assessing the implementation of these developmental objectives. It consists five inspection teams. One of them is the inspection team for ECE and primary education. Elementary schools are inspected as a whole. Every governing body or school board must include the attainment targets or developmental objectives in the curriculum. But the way in which these developmental goals are translated in a curriculum is decided by the school. Schools decide autonomously on their educational methods, curriculums, timetables and the recruitment of their personnel.

Hence, the specific programmes of pre-primary education may differ, since each pre-primary institution and each provider organisation develops its own centre-based programme relating to the overall developmental goals. A study in 2008 showed that the developmental goals are well known by the pre-primary teachers : 75% of the pre-primary teachers is using the developmental goals when they prepare their lessons (Van Petegem & Rymenans, 2008). Assessment in pre-primary education is carried out on a regular basis by the teachers; documentation and charts of individual progress provide a good basis for critical reflection and dialogue with parents.

The educational inspectorate of the Flemish Ministry of Education and training acts as a professional body of external supervision by assessing the implementation of the attainment targets and developmental objectives at the level of the primary school.

### **Universal services with a flexible allocation of funds that target additional resources for disadvantaged groups**

The provision of structural services for all as well as providing additional funding toward disadvantaged groups seems to be the most effective strategy for making ECEC accessible, especially for children from immigrant or low-income families. (Education, Audiovisual and Culture Executive Agency, 2009; 2008; Leseman, 2002). Flanders has therefore chosen for universal entitlements to publicly funded ECEC provision with a flexible allocation of funds that target additional resources toward disadvantaged children and families.

Since the nineties, in the pre-primary and in the primary school in Flanders much attention is given to ‘care’ policies and ‘equal educational opportunities’ policies to ensure equal opportunities for all children and specifically support children with extra learning needs. The 2002 decree on ‘Equal Opportunities in Education’ of the Flemish government put in place, amongst other things, an new system of funding in pre-school and primary education, taking into account the school’s composition in terms of the socio-economic characteristics of its pupils. One of the aims of the policy is to improve the chances of underprivileged pupils in education. Until now the effects of the Equal Opportunities in Education policy on the school careers and educational attainment of underprivileged pupils have not been measured adequately (Poesen-Vandeputte & Nicaise, 2012). This is at least in part due to the slow release of relevant data. Recently a research was set up that evaluated care policies in the schools (Struyf, Verschueren, Verachtert & Adriaensen, 2012). They found that the care policy has evolved from a teacher who was supporting the children who needed extra support towards specially trained pupil counsellors who focus on integrating all teachers in the support programs for the children. In this ‘whole school approach’ the schools need to have a

clear ‘care’ vision, support structures and systems inside the school, and have the whole team participate. Next, the support role of the school principal is essential as well as collaboration with parents and collaboration with external services. Also, the professionalization of the teachers is a precondition for this ‘whole school approach’ (Jacobs and Struyf, 2010). Jacobs and Struyf (2010) came to the conclusion that the evaluation of the care policy on the schools shows a lack of monitoring and evaluation of this policy by the school principal. It should be noted that this research found no difference in the care policies of schools with and those without children from disadvantaged groups. The main difference is in the policymaking capacity of schools (see also p.12 competent system): schools with a high level of policymaking capacity have higher levels of integrated approach towards care than schools with low levels of policymaking capacity.

Based on the idea that inequality in the education of the children already starts in early years, the Department of Education has, since 2007, taken several measures to increase the participation of toddlers in pre-primary education. Although nearly all toddlers go to pre-primary (about 99.5 % see DG EAC – Data source: Eurostat – UOE, 2008), policy makers problematize the fact that some children do not regularly attend pre-primary education. They estimate that absence is highest among those groups that are “at risk” for school failure later on: children from poor families, among which ethnic minorities are over-represented (Vandenbroucke, 2007; Vandenbroeck, De Stercke & Gobeys, 2012). Thus, the parents from these children are stimulated to send their child more often, and at an earlier age to pre-primary, in order to prevent later school failure. One of the measures is that parents receive a home visit, in which the benefits of pre-primary education is explained. Low-income parents receive a small fee to cope with school expenses. If their child did not attend pre-primary education for at least 220 half days, this money can be withdrawn. Moreover, a child cannot enrol in the first year of compulsory school, unless the child has been to pre-primary education for at least 220 half days and unless she/he succeeded in a language test (Smet, 2009).

Different studies have showed that places in child care are not only far too scarce, but that accessibility is unequal. Figures of the governmental agency Kind en Gezin (Van Keer, Bettens, & Buysse, 2004) show that while 49.4% of Belgian families regularly make use of child care provisions, this is only the case for 24% of ethnic minority families and for 22% of poor families. A more detailed study in Brussels argued that these unequal figures cannot only be interpreted as a result of parental choice but rather need to be viewed as a result of other environmental factors such as the unequal distribution of places (more places in more affluent neighbourhoods) and the priority criteria set by the management of individual provisions, favouring double-income, majority families (Vandenbroeck, De Visscher, Van Nuffel, & Ferla, 2008). Finally, a large-scale study in 16 Flemish cities showed that some 10% of families did not succeed in finding a child care place at all, that another 10% settled for a place that did not meet their demands, and that single-parent families, ethnic minority families and low-income families are overrepresented in these groups that cannot find a suitable place (MAS, 2007). They also confirmed the results of the previous study that this social gap is indeed to a large extent linked with the priorities set by the management. In short, there has been a growing political awareness that the organization of Flemish child care may contribute to existing social inequalities and may be one of the pathways through which poverty is reproduced.

A first attempt to close this early educational gap, consisted of funding small and flexible child care centres in impoverished neighbourhoods, focusing on enrolling children who used to be excluded from mainstream provisions. In 2006, 18 of these centres were established

(Depoorter, 2006) and they succeeded in reaching the targeted population (Seaux, 2006). However, they did not succeed in influencing the overall access policies of mainstream provisions, as policy makers expected, and in some cases even contributed to widening that educational gap, by legitimating the mainstream provision not to alter their policies. In 2007 an experiment started in 16 pilot regions of the Brussels community commission. In each of these regions different child care provisions worked together to develop a common social policy, with a more transparent and explicit access policy, in order to better serve the needs of diverse populations. This was similar to (and partially inspired by) the French child care decree of 2000 (Ministère de l'Emploi et de la Solidarité - CNAF, 2000). However, in contrast to the French approach, the Flemish pilot projects were based on voluntary participation and also lacked investments in a central leadership needed to enhance the integration of services. After two years of experimenting, the structural effects on accessibility for marginalized families still remained very weak. Finally, early 2009, the Flemish government decided to take structural, legislative measures. Since then, all funded child care centres are obliged to reserve 20% of their capacity for single-parent families, families living in poverty and crisis situations.

## Curriculum

Up until today (2013), there is no curriculum in Flemish Childcare for the 0-3. A new curriculum will be developed in the coming years within the MeMoQ project (University Ghent and Leuven).

For pre-primary schools developmental objectives need to be aimed at for all the 2,5-6 year olds. These are minimum objectives of knowledge, competences and attitudes that are considered to be desirable for a particular pupil population and that the school must strive to achieve for all pupils by the end of pre-primary education. These developmental objectives form the common core curriculum. These were formulated for five areas of learning:

- physical education: motoric competences, healthy and safe lifestyle, self-awareness and social integration;
- art education: visual arts, music, drama, dance, media and attitudes;
- Dutch: listening, speaking, reading, writing, linguistics;
- world studies: nature, technique, humankind, society, time and space;
- mathematical initiation: numbers, measuring and space (geometric initiation).

All schools must offer their pupils activities in all these areas of learning and the inspectorate checks whether these developmental objectives are pursued. The school boards or the educational umbrella organisations design a curriculum, containing the developmental objectives, which needs to be approved by the government upon the advice of the inspectorate. When approved, the inspectorate will subsequently also check whether the curriculum is also followed in daily practice. Objectives and activities are set for all age groups in a continuous learning curve towards primary education.

## Professional development

As far as the number of places is concerned, Flanders meets the standard of the European Barcelona Targets (33%), with a childcare place for 34.47% of all the under 3's, and thus belongs to the select club of five countries meeting these targets (SILC 2006). The number of places in childcare has more than tripled since 1990.

However, we should point out that this increase has happened mostly in those sectors with hardly any training requirements, and where the employment conditions are extremely precarious: family day carers, out of school care and independent day care centres (mostly for profit). Independent day care centres have shown the strongest growth over the past few years with a five-fold increase in the number of locations. At the same time, these independent day care centres face the biggest challenges: no training requirements, many of the staff members are quasi-independent or do underpaid work. One of the results is a high level of staff turnover (Misplon, et al. 2004).

To work in a subsidised child care centres (0-3) a 1 year training on post-secondary level as 'kindbegeleiders' (child care worker) is mandatory.

Research confirmed the hypothesis that the childcare sector was undergoing a process of deprofessionalization: diploma requirements were now only being set for a small part of the sector (17%) whereas 30 years ago a certificate was necessary for every job within the sector (Peeters 2008).

It is well known that the workforce in Belgium is getting behind, according to European or OECD standards (OECD, 2006; UNICEF, 2008). Two major problems regarding professionalization are common to French and Flemish communities: the low qualifications for nursery nurses (or child care staff), and the fact that training for the management of child care centres is hardly preparing them for this field. In addition, more specifically for the Flemish community, a third and growing concern is the increasing number of unskilled workforce in child care. We will shortly comment on each of these challenges.

Child care workers in Flanders receive a training on the vocational level after 7 years (Flanders) of secondary vocational school. This initial training is embedded in a long history of hygienic and technical professionalism and is poorly adapted to the considerations on the educational and social functions of child care (OECD, 2006). In addition, Belgium was one of the only European countries where no bachelor in early childhood education exists, preparing the workforce to work with families and children below 3 years of age.

A study on professionalism in Flemish childcare and some international reports (Peeters, 2008; OECD, 2006, UNICEF, 2008, Seepro 2010) were making the case for a Bachelor's degree to break the cycle of deprofessionalisation. 'Examples of interesting practice' in France (Cadart 2006), Denmark (Hansen & Jensen 2004), Italy and Ghent (Urban et al. 2011; Peeters, 2008) have shown that professionals with a Bachelor's degree seem to be able to pass on the 'reflective practitioner' attitude to colleagues with only a secondary education. Therefore Kind en Gezin – in collaboration with experts – drafted a profile for a new Bachelor's degree. Graduates of this 'Pedagogy for the Young Child' course would be able not only to fill staff positions in childcare facilities, but also be responsible, within the teams and institutions, for working with practitioners with secondary qualifications to draft the pedagogical policy of the provision they work in together. The curriculum of this 'Bachelor's degree in Pedagogy for the Young Child' also includes the coaching of employees with lower qualifications. another important task for these new Bachelors will be to provide pedagogical support for family day carers and to supervise those who are in the process of getting some qualification. In September 2011, the initial training course 'Bachelor for the pedagogy of the young child', with more than 200 students in the first year, was established in Antwerp, Brussels and Ghent.

In April 2014, a new law on childcare for the 0-3 will be implemented (Decreet Opvang van baby's en peuters), requiring everyone working in childcare to be qualified by 2024. To this date (September 2013) it is not yet clear on which level of the European Qualification Framework the different required qualifications will be scaled.)

Another important aspect of this new law is the attention for pedagogical guidance as a tool to increase the competences of the individuals, especially the workers without qualification. According to the new law every provider of childcare will have to guarantee pedagogical guidance for all the employed childcare workers.

Already, the childcare sector, the training centres and pedagogical research centres have developed instruments that will be useful for the pedagogical counsellors or coaches (e.g. a training module for family day carers (40 hours), developed in 2013 by two resource centres, (VBJK and CEGO).

Most of the teachers (99%) in early education (kleuteronderwijzers) (pre-primary school teachers) are trained on a bachelor level (3 - year tertiary qualification). These teachers receive salaries equivalent to primary and lower secondary teachers (OECD, 2012). Training to teachers in pre-primary schools is provided by educational guidance services. Each of the 3 educational umbrella organisations has its own educational guidance service (PBD), which ensures professional internal support to schools and centres. Schools can call on them for educational and methodological advisory services (innovation projects, self-evaluation projects, support initiatives).

*Core practitioners in pre-primary education* (Kleuterleid(st)er / Kleuteronderwijzer / Instituteur / Institutrice de maternelle / Kindergärtnerin)

The three-year study route for prospective staff in pre-primary education takes place at higher education institutions – university colleges – specializing in teacher education (Hogeschool, Department Onderwijs / Institut Supérieur de Pédagogie / Pädagogische Hochschule).

A reform of teacher education programmes has been on the agenda for some years in the Flemish Community and a new programme was finally launched in September 2007 (Eurydice/Eurybase, 2009a). The so-called integrated teacher training programmes combine subject-specific and pedagogical-teaching components throughout the entire three-year study route. The pre-primary route leads to a professional Bachelor's degree in Education. The total course comprises 180 ECTS (60 credits per year), with one credit representing a work load of 25 to 30 hours. The practical component has been extended and now accounts for 45 credits. The first year in teaching is an official introduction year and new teachers receive guidance from a mentor within the pre-primary centre and from a training counsellor employed by the university college.

Course content in the Flemish Community is based on building basic competences such as decision-making skills; critical thinking; inquisitiveness; organizational skills; cooperative skills; sense of responsibility; flexibility (Eurydice/Eurybase, 2009a).

*Core practitioners in childcare centres* (Begeleid(st)er Kinderopvang)

Childcare workers with a three-year post-16 vocational training are the largest group of qualified staff in centre-based provision for children under 3 years of age. Course content focuses mainly on social and medical care and home economics, but also includes subject areas such as music and art education and applied psychology. Apprenticeship account for over half the training scheme, and usually take place in hospitals.

In the Flemish Community, no qualification is necessary for working in independent childcare centres (zelfstandig kinderdagverblijf). However, as stated before, this has been the fastest growing sector since the end of the 1990s (33% of all childcare places compared to

17% for the subsidized childcare centres).

The subsidized childcare centres in Flanders employ qualified kindbegeleid(st)ers. In 2014 the first Bachelors in Pedagogy of the young Child (Pedagogisch Coach) will graduate. From then on, they will function as pedagogical co-ordinators or advisors that will design the pedagogical policy together with the other practitioners with a secondary qualification and take on the supervision of the assistants who are working towards a qualification. They are also trained to work with children and their parents.

#### *Continuing professional development*

In Flanders, continuing professional development courses for pre-primary teachers (Kleuteronderwijzers) are provided mostly by the Community Ministry of Education. Childcare staff are granted between four and 60 hours annually (OECD, 2006).

## **Parents**

The involvement of the parents is a part of the quality policy of a childcare centre and the way parents are involved must be elaborated in the Quality Handbook of each institution. For the pre-primary schools a parents council is obliged if 10% of the parents ask for it.

## **Future Perspectives**

We need to go for a radical re-thinking and re-invention of professional development for early childhood practitioners. For childcare and pre-primary we need a coherent system of continuous professional development that is focused on transformative practice. A key characteristic of successful systemic approaches to professionalization is their ability to recognise and build on practitioners' prior and every-day experience (e.g. analyse de pratique, critical reflection) and to support peer learning and 'intergenerational' learning. A competent system requires possibilities for all staff to engage in joint learning and critical reflection. This includes sufficient paid time for these activities. A competent system also includes cooperation between individuals and teams, institutions (pre-schools, schools, support services for children and families...) as well as competent governance at policy level.

The number of men working in ECEC in Flanders is low: 3.4% in childcare and 2.53% in pre-primary education. Flanders need to start campaigns to increase the number of men especially in pre-primary education. Campaigns in Norway were successful, the number of men increased to 8.3%. Professionalism in ECEC deserves a broader interpretation in Flemish childcare and pre-primary school. (Peeters, 2013)

In countries such as Denmark and Norway, where much emphasis is placed on out-door activities and sports, a different type of professionalism has developed that is gender-neutral and, therefore more attractive to male workers and fathers (Wohlgemuth 2003; Royal Norwegian Ministry of Education and Research 2012). Also, a construction of professionalism in which the social function of childcare has been strongly developed (Vandenbroeck 2009), offers further opportunities to attract more men (Meleady & Broadhead 2002).

The past years, policy makers, researchers and stakeholders invested quite a lot in the preparation of the new childcare law. Now that the law will be implemented, the childcare sector is up for some challenges. Some look very promising, such as the overall quality monitoring system that will be the same for all childcare services. Also positive is the new requirement of qualification for every childcare provision and that all workers will get

pedagogical support from pedagogical coaches. With the new bachelor degree Pedagogy of the Young Child and the coaching instruments that were developed the past years, the sector is ready for the implementation of pedagogical coaching.

We also welcome the study (MeMoQ) that will measure the educational quality of the entire childcare sector. Some experts have great doubts about the quality of that part of the sector with no qualifications requirements, but up until now no reliable data was available to either confirm or contradict those doubts. With reliable data on the quality level, the childcare institutions will have more concrete guidelines for their quality policy in the future.

Yet some challenges and haziness remain. The Flemish Government has chosen for a long transition period of ten years for the implementation of the qualification requirements and it is still unclear what the level of the qualification (European Qualification Framework) will be.

The government wants to develop different pathways to qualification for the many low qualified workers, but not all the actors that must decide on this are as convinced of the need to have reflective practitioners to work in childcare. Some of them have a very technical, executive view on the work of the childcare worker.

For the pre-primary schools it will be a challenge to work closer with parents, especially those who live in disadvantaged circumstances. Some schools in larger cities have a lot to offer in working in a context of diversity but in other schools a coherent policy to ethnic minority parents and parents living in poverty is still lacking.

Another problem for the pre-primary schools is the care for the youngest children (2,5-4 years). Collaboration with childcare facilities to create smooth transitions between childcare and school for the youngest children should be a priority now. But schools also need to invest more in the care for and the well being of the youngest children. The teacher / child ratio in most schools is way too high, sometimes up to 25 children per teacher. With a number per class of new children entering school after a holiday period, could be lowered if the classes or age groups would be replaced by age integrated groups, like it already is the case in a minority of schools.

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#### Important websites:

- [http://ec.europa.eu/education/school-education/doc/childhoodcom\\_en.pdf](http://ec.europa.eu/education/school-education/doc/childhoodcom_en.pdf)
- <http://www.ond.vlaanderen.be/english/>
- <http://www.kindengezin.be/vernieuwing/kinderopvang/decreet-babypeuter/>

#### Important websites in English:

- [http://www.ond.vlaanderen.be/onderwijsstatistieken/2011-2012/VONC\\_2011-2012/VONC\\_2012\\_ENG\\_3\\_SecundairOnderwijs\\_web.pdf](http://www.ond.vlaanderen.be/onderwijsstatistieken/2011-2012/VONC_2011-2012/VONC_2012_ENG_3_SecundairOnderwijs_web.pdf)
- [http://www.ond.vlaanderen.be/onderwijsstatistieken/2011-2012/VONC\\_2011-2012/VONC\\_2012\\_ENG\\_2\\_Basisonderwijs\\_web.pdf](http://www.ond.vlaanderen.be/onderwijsstatistieken/2011-2012/VONC_2011-2012/VONC_2012_ENG_2_Basisonderwijs_web.pdf)
- <http://www.ond.vlaanderen.be/onderwijsstatistieken/2007-2008/plooi/0708Eng/default.htm>
- <http://www.vlaanderen.be/en/publications/detail/education-in-flanders-the-flemish-educational-landscape-in-a-nutshell-2008>

# 3. Country position paper on ECEC of Germany

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## The ECERS-System in Germany: Development and Current Challenges

### 1. Historical Perspectives, Recent Developments and the Actual Quantitative Challenge

Early childhood education and care, as a more or less clearly articulated and consciously employed education concept, has been developing in Germany and other central European countries over the past two centuries. Its origin must be seen against the background of the formation of the bourgeois notion of the family, which came into being during the second half of the 18th century. This notion, which has generally been distinguished by an increase in warmth in the climate of family bonds, assigns a central role to the mother-child relationship (Shorter, 1975). Accordingly, a woman “discovers” within the family her “natural” vocation as wife and mother. Hence, the previously prevalent attitude of a certain degree of indifference towards children was replaced by one characterized by constant concern for the attention paid to children’s upbringing. As a result of this cultural-historical development, childhood began to be perceived as a separate state of being (Ariès, 1962), a state needing to be observed, interpreted, and subjected to deliberate molding. Education theorists, particularly those of the circle of Philanthropism (Basedow, Wolke, Salzmann, Campe, among others), drew attention on the great importance to adulthood of the earliest phase of human life and expounded on what was pedagogically appropriate for the child (Heiland, 1987).

However, members of a large number of social strata lacked the material means necessary to attain such a bourgeois family ideal. This discrepancy was further aggravated by growth of the proletarian population due to industrialization. Because of the poverty of the lower classes, all capable family members, mothers as well as older children, were obliged to work to obtain the means of subsistence. The mother's employment was ranked as more important than the care and upbringing of her small children, who represented a burden on the household and, indirectly, a further source of additional poverty. While their mothers were at work, many children, who often lacked supervision from a very early age, were left to their own resources. They were confined to their accommodations and were in some cases even given sedatives of alcohol and other substances to keep them quiet. Accidents among children were common, and a considerable number were in danger of complete dereliction (Barow-Bernstorff, Günther, Kreckler, & Schuffenhauer, 1986, pp. 123; Erning, 1987; Reyer, 1985, pp. 65). As a consequence of such a cluster of developments, various local establishments for the care and education of young children came into being. In most cases, their founding was initiated by members of the bourgeois class and the aristocracy, and the cost was borne by private societies (Kreckler, 1983; Reyer, 1986, pp. 133). Reyer (1987b, pp. 252) speaks of the dual motivation of publicly organized child care and education inasmuch as the objectives were to enable the mother's employment (and with this to stabilize socially and economically lower-class households) and to educate their small children according to bourgeois principles. In practical terms, the aims were:

- to preclude the physical and psychological dereliction of children;
- to install in them moral appropriate to the circumstances of their class;
- to relieve the burden on public relief funds;
- and to free the emerging school system from looking after young children, a task it had begun to adopt (Erning, 1987).

Governmental authorities swiftly recognized the stabilizing effects such institutions had on the status quo of society and advocated their dissemination, without providing funds for their support, however.

The provision called for were care provisions of the asylum type. They operated as fullday provisions, and consisted of extremely big groups up to 200 children. More or less in parallel Froebel's kindergarten as a pedagogical institution developed utilizing play and games educationally that made its reputation and created its enduring influence both in Germany and far beyond its borders. It is a mark of this influence that the term kindergarten as the label for preschool education has been adopted either in this form of in translated form in so many languages. Froebel's concept of the kindergarten also included intensive personnel training, the details of which he himself designed. Kindergartens were generally open for only a few hours a day, were operated in small groups, and attended largely by middle-class children.

A continual increase in the number of preschool institutions characterized developments in the second half of the 19th century. Existing side by side were a number of differing types of institutions: By 1910, about 13% children of the relevant age group were served in early childhood provisions.

After the end of World War I and the transition from empire to republic, a fundamental revision of the educational system was undertaken. However, those who wished to include kindergarten in the educational system and to make it the bedplate of a uniform educational system for all children failed to achieve their objectives. The regulations laid down in the 1922 Youth Welfare Act are even today still valid in principle. The law acknowledged the right of every child to an education, which the public authorities were obliged to provide

indirectly or directly – if the family itself was unable to do so. The law gave priority in the founding and running of kindergartens to organizing bodies of independent social welfare organizations. This meant that kindergartens sponsored by public authorities were only established if the need for such institutions was not met by the churches or other philanthropic organizations (the principle of subsidiarity). Youth welfare offices established to operate at the level of town or county administration were to provide a public means of supplying a sufficient number of places in kindergartens, of maintaining standards of teaching and care, and of supervising all private and public institutions (Reyer, 1987a).

After World War II, different paths were taken in the reestablishment of the kindergarten system in East Germany and in West Germany. In East Germany the inclusion of a kindergarten level in the system of education was planned as early as 1946 and was later confirmed in law. Thus kindergarten came to be defined as an educational institution; correspondingly, it was free of charge. In contrast, the path of restoration was chosen in West Germany. Kindergarten remained the administrative responsibility of the youth welfare service, and its function was limited to that of supplementing family upbringing where needed. In essence, the regulations of the 1922 act were adopted (Barow-Bernstorff, Günther, Kreckler, & Schuffenhauer, 1986, pp. 415).

With regard to the societal climate of that time, a widespread summary critique, although it was somewhat exaggerated, contained more than a grain of truth when it suggested that women and mothers should perceive their tasks in the triple K of “Kinder, Küche, Kirche” (children, kitchen, church). This family image implied a lack of a general need for an additional system of preschool education beyond that of the family. Such a system of care and education outside the confines of the family served its purpose only in cases in which family adversities made it unavoidable.

This situation changed dramatically in the mid-1960s, when a remarkable phase of expansion and reform in West Germany’s education system took place. Kindergarten, although not an element in the education system, was rapidly caught up in the reform process. Indeed, early childhood education was even accorded a key role.

The German Council on Education (Deutscher Bildungsrat, 1970) coined the term *Elementarbereich* (elementary level) for this new stage, which was to precede the primary (ages 6 - 9) level of education (*Grundschule*). Although kindergarten attendance would not be compulsory, it was assumed that all children would be reached by provision of an ample supply of kindergarten places that were to be filled voluntarily.

Although the kindergarten (*Elementarbereich*) was considered as the basic stage of the educational system with access to every child in the age range of 3 to school entrance, a shortage of places for children was obvious. This situation changed by the mid of the 1990s when a federal law entitled legally each child in the mentioned age range for a kindergarten place. A rapid expansion of the kindergarten system occurred, based on a considerably push of public investments.

At that time, no expansion of places for under 3 year olds was planned. The coverage rate for this age group remained very low in Western Germany and was about 2%.

This situation changed in 2008 when a federal law was enforced (KIFÖG). This law entitled each child in the age group of 1 - 3 years for a place in a publicly founded day care center

resp. in a publicly licensed family day care provision, too, by 1st of August 2013. This legislation required considerable investments at the various state levels: the level of municipalities and counties, the state level (Bundesländer), the federal level. The quantitative developments since the end of World War II are depicted in table 1.

Table 1: Rate of attendance for 3-6 year olds and under 3 year olds, 1950-2011

		1950	1960	1970	1980	1990 <sup>5</sup>	2002 <sup>a</sup>	2006 <sup>b</sup>	2011
<b>FRG / western states</b>	Kindergarten (3-6)	29.1	28.1	32.9	67.5	67.1	90.6	86.8	93.6
	Krippe (<3)	0.4	0.7	0.6	1.5	1.8	2.4	8.0	20.0
<b>GDR / eastern states</b>	Kindergarten (3-6)	22.0	46.1	64.5	92.2	>100	>100	91.9	95.6
	Krippe (<3)	6.3	9.9	23.6	40.5	56.4	37.0	39.3	47.3

Despite the quantitative progress which has been made during the past 5 years especially for the under 3 olds, various quantitative challenges are remaining. Among these are the followings:

- There is still a considerable lack of places, especially for the under 3 year olds.
- There are substantial regional discrepancies in the coverage rates.
- The opening hours of centers are often too limited (4-5 hours) and not fitting to working schedules of parents.
- The parents' legal right to choose between various care and education opportunities for their child is presently in the context of shortage of places mainly a right only on paper.

To sum up: the quantitative challenge in the German early childhood care and education system has been picked up by policy-makers, the media, and the public, however, further efforts and substantial investments have to be made to meet the quantitative challenge in all details.

## 2. Quality challenges

The Federal law (KiFÖG) as well as the 16 state laws on early childhood education and care ask for quality in ECEC provisions. The operation of an ECEC provision underlies a licensing process by a state authority and incorporates various requirements a center and its sponsor agency has to fulfill. However, the quality standards to be observed are not high and are limited in range. The licensing process is not orientated on high quality standards but is designed to avoid a provision may harm the well-being of children. Each center and each family daycare provision has to undergo the licensing process.

The lack of sufficiently high quality in the German ECEC-system is a matter of a widespread critique as can be drawn from various reports. A study of the German Institute for Economic Research in Cologne estimated, based on PISA data, that a substantial improvement of ECEC system in Germany would lead to a reduction of students leaving the school system without a formal qualification from presently 16 % to 10% and to an increase of the percentage of students with high qualifications from 32 to 38 %. (Anger et al., 2007). The critique regarding the quality of the German ECEC-system related to issues such as:

- too big group sizes;
- too poor teacher/child-ratios;
- too low qualification of staff (too few employees with academic qualification);

<sup>5</sup> Ausgehend von einer Vollversorgung in den neuen Bundesländern kam es auf Grund eines starken Geburtenrückgangs in den 1990er Jahren zu einem Überhang an Plätzen.

- no curriculum clearly implemented;
- lack of clearly defined quality standards;
- underfinancing of the system to develop and maintain high quality.

Presently, no quality monitoring in the German ECEC has been implemented. Therefore, information on quality of the German ECEC-system is dependent on a few studies conducted in this field.

The most recent study on quality, based on a sample of some 600 ECEC centers, chosen from 8 out of the 16 states, and using German versions of the ECERS-R and ITERS-R (Tietze & Roßbach, 2010) as quality criteria (Tietze et al., 2013) revealed results as depicted in figures 1 and 2.

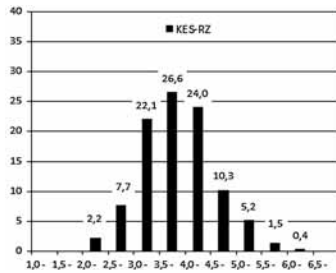


Figure 1: ECERS-R quality in German centers (Tietze et al., 2013)

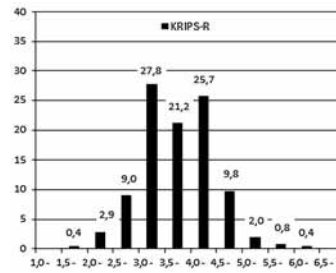


Figure 2: ITERS-R quality in German centers (Tietze et al., 2013)

As can be seen, the vast majority of classrooms

- shows mediocre quality (3-5);
- 10% of classrooms were found with unacceptable low quality (<3)
- and less than 10% were located in the range of good to excellent quality (≥5).

The means ECERS-R were  $M = 3.9$ . For ITERS-R  $M = 3.8$ .

For the German version of the ECERS-E with its subscales Literacy, Mathematics, Science, and Diversity (Roßbach & Tietze, 2010) (Sylva et al., 2006) the respective value was  $M = 2.8$ , indicating very low quality.

The ECERS-scores of the NUBBEK-study allow for comparisons with ECERS-scores of a study conducted 15 years ago (Tietze et al., 1998). This earlier study used the first version of ECERS (Tietze et al., 1997; Harms & Clifford, 1980), which measures somewhat less rigorously than the ECERS-R: On average, a classroom scores in the ECERS-R by 0.6 lower than in the ECERS. Taking into account this difference, the mean quality scores were found to be identical in the 1998 and 2013 publication, i.e. the mean quality has not changed during the past 15 years.

This result is disappointing for policy-makers who argue that various measures have been taken in this period to improve quality in the German ECEC-system:

- In all 16 states ECEC-curricula were established.
- Some of the states improved teacher / child ratios slightly.
- In almost all states BA-studies were implemented to increase the number of academically trained personnel.
- All states implemented programs to support early language and literacy development of children.

- All major sponsor agencies in the field of early education and care implemented some kind of quality management systems.

A general belief that policy activities in the ECEC field are always linked to an improvement of quality is obviously not advisable. A Dutch study on changes of quality leads to the conclusion that the quality level of Dutch ECEC-centers has been considerably decreased over time (Vermeer et al., 2008).

This mismatch between political expectations on reform measures and empirical evidence may be due to the fact that reform initiatives in Germany are mainly based on beliefs and hopes but that their effects are very rarely a matter of evaluation.

The authors of the NUBBEK-study concluded in regard to quality of the German ECEC-system:

- Germany would need a national effort to improve ECEC quality;
- the 10% of classrooms with the lowest quality level need immediate assistance to improve;
- the average quality level is insufficient and has to be leveled up by systematic approaches;
- a quality monitoring system has to be implemented which allows for sufficiently detailed information on quality development over time.

### 3. Challenge of widening the functions of ECEC provisions

At present, ECEC provisions in Germany are nearly exclusively focusing on direct fostering and development support of young children. Work with parents and participation of parents is required, however is realized only at a modest level. The focus of traditional centers is on the child, less on the family as the child's primary environment and not on the wider municipal environment.

However, there is evidence from international studies that the impact of quality factors in the family and its environment on children's development might be twice to four times as big as the impact of center factors (Tietze, 2010). Therefore, many educationists and policy-makers believe that the focus on children should be augmented by a strong focus on parents and families and on the support systems in their environment in order to create a comprehensive support environment for the upbringing of young children. Centers with such a widening of functions are called "Family Centers" or "Parent-Child-Centers". They draw heavily on the British "Early Excellence" centers (Stöbe-Blossey et al., 2007).

The basic concept of this approach is depicted in Figure 3.

Figure 3: Family centers with widened functions



(economic, social, educational, cultural, health support)

These family-centers are expected to have both a direct impact on children by high quality in the centers, and an indirect impact on children by supporting their families in various regards. In this model, it is not expected that the family centers provide by themselves for all the support measures for families, but that they organize the locally available support systems specialized for certain function (economic, cultural, health support etc.) to make them accessible and effective for families.



The biggest state in Germany, Northrhine-Westphalia, has introduced a program to implement those Family Centers systematically and to increase their number year by year. Meanwhile more than 2.000 out of the about 10.000 ECEC provisions in the state Northrhine-Westphalia have been accredited as “Family Centers” [www.familienzentrum.nrw.de/](http://www.familienzentrum.nrw.de/) based on criteria distinguishing “Family Centers” from traditional ECED provisions. Other states in Germany are trying out various models of “Family Centers”. The present situation in the German ECEC-system is characterized by various attempts to widening the perspectives on children and by widening the functions of ECEC provisions. However, only little empirical evidence, if at all, is available if the expected effects can be reached.

#### 4. Summary

The German ECEC-system faces three major challenges at present.

1. Quantitative challenge: Although a remarkable quantitative expansion of the ECEC-system has been reached, a shortage of places especially for the under 3 year olds can be observed. A further quantitative expansion especially with regard to full day provisions with flexible operation hours is needed. It will require a strong policy commitment and big financial investments within the next years. We need to be aware that an increasing rate of supply will create an increased demand.
2. Quality challenges: The mean quality of German ECEC centers needs considerable improvement. About 10% of all ECE-classrooms show unacceptably low quality and need immediate support for quality development. A national quality initiative to improve quality on a large scale basis is needed, supported by financial engagement at all policy levels: the municipal and country level, the state level, and the federal level. Policy measures undertaken to improve quality need better evaluation in the future. In general, a quality monitoring system needs to become implemented. This monitoring system should be designed to deliver continuous information on various quality indicators which can be used for an informed policy on ECECs.
3. Challenge of widened future functions of the ECEC-system: The only focus on fostering children and supporting their education and development might be too limited. Experts ask for a broader perspective which includes a focus on families and other support systems for children (and families) in their municipal environment. Centers including those functions are named as “Family Centers” or “Parent Child Centers”. Models for that type of centers have been specified, however strict evaluations are still missing. Systematic research on that issue is required for the future.

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# 4. Country position paper on ECEC of the Netherlands

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## ECEC in the Netherlands

Up until some decades ago, there were debates in the Netherlands about the decision to send children to day care before the age of 4, at which point primary education begins. It was commonly perceived that parents should be the primary caregivers. That perspective has slowly shifted as a result of more women acquiring higher education degrees, and having greater access to the labor market. Mothers are no longer bound to the traditional role as the sole child care provider, thereby resulting in a growing need for day care provisions. Day care had been commonly perceived to be a place where parents can leave their children and socialize with other children. Although the female labor market participation rose to over 80% in the past decades, accompanied by a strong increase in the use of day care, the average number of hours spent at work per week is still lower compared to other European countries, as well as the average number of hours children spend in day care.

To meet the rapidly increasing demand for day care since the early nineties, the Dutch government decided to privatize day care, allowing organizations for profit to enter the day care market which was up until then predominantly occupied by municipal welfare organizations and non-profit foundations. It is reported that the pedagogical process quality (observational measures of adult-child interaction, degree of verbal interaction, emotional support, disciplining and conflict solving style) of day care centers decreased since the

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privatization (Fukkink & Gevers Deynoot-Schaub, 2011). However, since 2011, the introduction of education programs, investments in teacher professionalization and new standards on process quality as specified in the *Developmental opportunities through Quality improvement and Education Law* (in Dutch nicely abbreviated in the acronym OKE) of 2011 have contributed to improved process quality.

The Dutch system of ECEC has certain “idiosyncracies” compared to other countries. Day care centers and child care providers are available for children aged 0-4 years. Preschool (peuterspeelzalen), or in some publications referred to as playgroups, are for children starting at 2 years of age. Primary school is mandatory beginning at age 5, but most Dutch children are already enrolled by age 4 and enrollment is free. Primary school grades 1 and 2 (for 4-6-year-olds) are also a part of Dutch ECEC. Currently, the first two years of primary school constitute the kindergarten department within the primary school. Whereas many of the original characteristics of kindergarten are maintained in the new primary school system, there has been increased attention for academic development in the former kindergarten. Moreover, kindergarten teachers are required to have at least a Bachelor’s Degree.

#### *Day care (0-4-year-olds)*

Day care centers are attended mostly by children of working parents. Parents can enroll children for full-day or half-day attendance. Parents shoulder day care costs, which are partly subsidized through tax rebates. Fees are income-based, but are also calculated according to number of children from a single family and days of enrollment per child. The level of fees varies by day care center. In the past, many day care centers lacked a child development framework to guide the program. Recently, however, there has been a greater interest in the quality of staff interventions and their role in stimulating young children’s development. The majority of day care facilities are registered with a central coordinating agency. This year, there has been a dramatic decline in the number of children in day cares due to reductions in tax compensations, and the economic crisis. From previous observational research (see below), the structural quality and process quality of day cares, as a consequence, are under pressure (Leseman & Slot, in prep.).

#### *Playgroups (2-4-year-olds)*

In the Netherlands, children starting at age 2 can enroll in preschool for one or more half-days per week. In recent years, the Dutch government invested heavily in ECEC for children at risk for educational failure. The aim is to provide high-quality, effective ECEC programs for four half-days a week. Teachers at preschools with a high percentage of at-risk children are offered training courses in various ECEC programs. These preschools differ from “regular” preschools in that four half-days of attendance are mandatory and each playgroup has two ECEC-qualified teachers. Another major difference is the higher quality in the teachers’ training, and the use of an accredited ECEC program.

#### *Child care providers (0-4-year-olds)*

Many working parents of young children make use of gastouders (literally guest parents), child care providers who are not linked to a child care center, but mostly provide care for smaller groups of children at home. Recent legislation in the Netherlands requires that child care providers have various qualifications and register with a child care agency. Parents receive compensation of childcare costs through tax rebates only if the child care provider is certified. Child care has the same system of fees as child care centers. Child care agencies provide training to providers on child development and quality care. Courses are also offered online through the *Gastouderacademie* (Guest Parents’ Academy).

### *Primary school (4-12-year-olds)*

Dutch children can enroll in primary school starting 4 years of age; the mandatory age for school attendance is 5 years. However, almost all 4-year-olds attend school. The former separate kindergartens have been substituted by the first two grades of primary school. In grades 1 and 2, teachers provide play activities and assignments that prepare children for formal learning, which starts in Grade 3 (at age 6). Primary schools that collaborate with local preschools offer the kindergarten version of the preschool ECEC program, which facilitates transition. However, this continuity is not always feasible due to logistical reasons. It requires the cooperation of preschools and primary schools, which are fewer in numbers, in particular when multiple preschools operate in the vicinity of a single primary school. Also, parents are entitled to choose a primary school for their child and they may opt for a particular school that is not linked to the preschool that their child previously attended.

## **Developments in ECEC policy**

A major task of Dutch authorities over the last 40 years has been to combat educational underachievement of at-risk children, particularly those from socioeconomically disadvantaged families, often migrant workers' families. Since the 1970s, these migrant workers' children have been the primary target group for many of the education policy initiatives in the Netherlands. During these years, the perspective shifted from maintenance of language and culture one as a result of the belief that migrant workers and their families would eventually return to their home countries, to a perspective of integration and participation into mainstream Dutch society (Commissie Allochtone leerlingen in het onderwijs, 1992). To make this policy work, the government abolished the home language classes, and started to build a strong early childhood education system for children aged 2,5–6 years, especially for those who speak a language other than Dutch (Commissie (Voor)schoolse Educatie, 1994). Over the last fifteen years, the focus has been on prevention of educational problems by targeting very young children.

After a limited number of experiments before the turn of the millennium, early childhood programs were developed and implemented on a larger scale in 2000 (Commissie Voor- en Vroegschoolse Educatie, 1996, 1999; Leseman et al. 1998, 1999). These first programs were adapted from internationally recognized early childhood programs (e.g., Head Start, HighScope). Although the National Institute for Curriculum Development (SLO) has recently started the development of a curriculum for three-year-olds, there has never been a uniform curriculum for preschool or early school education. Instead, the Dutch Ministry of Education provides a framework for the organization and content of ECEC, containing the following:

- Guidelines and legislation for organizing ECEC. It is the task of municipalities to implement these guidelines locally.
- A set of “development goals” to be reached by children at certain ages.
- A set of quality standards and a system of quality assurance to ensure the goals are met.

The goals of ECEC are fixed, but there are different ways to achieve them. Nowadays there are a number of qualified ECEC programs, out of which (pre)schools can choose together with local governments/ municipalities (see Driessen, 2012). These programs are based on different educational and child development theories. Some have elaborate manuals and are more program-oriented, while other more child-focused programs provide general guidelines that allow for more creativity on the part of the teachers and staff. The fact that we have

different programs derives from the constitution-based freedom of education. Schools are free to choose their methods and materials. As long as programs meet a certain set of quality criteria, it is possible to put new programs on the market, which then need to be screened and judged by a national accreditation committee, led by the National Youth Institute (NJI). At the moment, there are eight qualified programs (*Piramide*, *Kaleidoscoop*, *Startblokken/ Basisontwikkeling*, *Ko-Totaal*, *Boekenpret/ Boekenbas*, *Speelplezier*, *Sporen* based on Reggio Emilia, and *Ben ik in beeld*).

These programs are, in many respects, highly similar in terms of the development and learning theories that inform them, but are quite different in terms of the implementation strategy chosen. For instance, some programs work in highly pre-structured way and are teacher-centered, providing teachers with extensive instructions on what to say and do when working with children, whereas others aim to change teachers' knowledge and attitudes and advocate for a more child-centered approach. Thus, the difference between these programs lies mainly in their underlying philosophy and is reflected in the various roles the teacher plays in guiding children's development. Three approaches can be distinguished: a child-centered approach, a program-based approach, and an "intermediate" approach, in which the teacher mediates between the child and a program (see Brouwers, 2010).

From 2000 on, programs that are developed are mainly center-based. All programs have a parent involvement component, often consisting of additional materials (e.g. worksheets) for parents and children as "homework". The national accreditation committee evaluates both the theoretical underpinnings and approach of each of these education programs, as well as the available evidence for a particular approach and concluded that each of these programs are well designed, well founded and "in theory, effective". However, hard evidence is still lacking.

## Policy organization

In 2002, early childhood education became a part of local policy agreements to enhance the opportunities for children at risk. A stronger cooperation between playgroups and primary schools was seen as the vehicle to establish a continuum for learning and development from age 2-12. In many large cities, playgroups joined with primary schools nearby. Financial support was given by the local governments to playgroups and primary schools, on the basis of "weighting factors" for children at risk: playgroups and schools receive 1.4 or 1.9 times the regular funding for children defined as being at risk. These weighting factors are based on the educational level of the parents, since this is a reliable factor to predict the risks in the educational development and needs for children.

Regular playgroups offer two mornings (or afternoons) for children to play and meet other children. If enough children at risk attend the playgroup, the playgroup receives extra funding. However it has to comply to a number of additional conditions including working with a qualified ECEC program and children must attend at least four half-days a week.

In 2006 the government decided to make a distinction between the funding of playgroups and schools, following the new system of funding for primary school (lump sum system). This made the development of an integral approach for early childhood education more difficult.

At the same time (2005) childcare legislation changed. The organization of childcare came

into the hands of the private sector, and initially resulted in a financially more affordable arrangement for parents. Based on their income, parents receive a tax refund, and this was the basis for a fast growing market for childcare between 2005 and 2010. Although there was great trust in the flexibility and organizational capacity of the sector, questions were raised when a large international investment company purchased one of the largest childcare organizations, which was generally perceived as purely an investment for financial gains.

Illustrative for the position of childcare within the field of provisions for children aged 0-12), is that at state level, child care policy was moved from the Ministry of Social Affairs and Employment to the Ministry of Education in 2007 and back to the Ministry of Social Affairs and Employment in 2010. This suggests that childcare provisions are primarily seen as a labor market instrument. When the latest government was installed in 2012, it was stated that further regulations will be developed regarding the harmonization of playgroups and child care organizations (Regeerakkoord, 2012).

Step by step, child care organizations started to work with early childhood programs and train their teachers. At first there were questions about the public image of these child care organizations catering primarily to the needs of children at risk. But this debate soon subsided due to a shift in childcare organizations' perspective from "providing care" to creating a stimulating and pedagogically rich environment. Working with accredited ECEC programs meant a huge boost for the professional development of child care providers. Recently, a pedagogical framework for childcare 0-4 was developed, a description of pedagogical principles and developmental goals, which was embraced by organizations in the field (Singer & Kleerekoper, 2009), mainly because it did not focus solely on cognitive development, but also took other developmental aspects and skills into account (such as social emotional development, respect for diversity).

Due to the fact that child care organizations had started to use ECEC programs, ECEC is no longer limited to specific children at risk. There has been a shift from special attention for children at risk to the holistic development of all children (although this is not yet reflected in the financial arrangements for ECEC). Some believe that this is a questionable development because the approach and method become less focused and more diffused. It is believed that achieving success for children at risk is possible with highly effective programs and a targeted approach: children spend more time at the center, with well-trained professionals, and a high-quality program.

Still, one of the major concerns is the number of children at risk who do not attend ECEC programs. The Primary Education Law does not mention a desired enrollment rate of 100%, but it is stated that municipalities are responsible for adequate and sufficient supply of quality preschool education services for children at risk. However, plans to enforce all children's attendance revealed legal obstructions (Kriek et al. 2012). Non-attendance is a problem in more scarcely populated regions. Some municipalities in these regions experimented with an integrated approach, with the aim to enroll children at risk in ECEC through cooperation between different organizations. For instance, health care organizations catering to the needs of infants and toddlers are obliged to register developmental risks, and can play an important role in referring parents to a playgroup with high-quality ECEC provisions.

In preschool the attendance rate among children at risk is 86% (Beekhoven, Jepma & Kooiman, 2011); in smaller municipalities, the rate is 69%. The attendance rate for children at risk within the first two grades of primary education is 100% (all children go to school), but



only 73% are in one of the ECEC programs accredited by the Dutch Youth Institute (NJI) (Beekhoven, Jepma & Kooiman, 2011). In smaller municipalities, the rates are between 50 and 66%. There are different financial arrangements between preschool organizations and schools and a reason for these relatively low rates might be that not all schools are aware that they can benefit from extra, targeted ECEC funding (Beekhoven, Jepma & Kooiman, 2011).

One of the major issues at the moment is the diminishing number of childbirths. The number of births has been declining since 2003, and this decline is expected to continue at least two years more. The total decline is estimated at 100,000 children (9% of the total). This causes new challenges for ECEC organizations, especially in less densely populated regions. It is expected that the number of primary schools with less than 50 children will double to 500 schools between 2012 and 2019, if present policies stay unchanged (Ministry of Education, 2013).

In 2011 there were concerns about the quality and the effects of programs on children, and the government decided to start 30 pilot programs for children aged 3 (so-called Startgroups). These 30 pilot programs received funding to organize ECEC for five mornings a week, under the supervision of the primary school.

The 2010 *Developmental opportunities through Quality improvement and Education Law* (OKE Law) states that the same quality regulations hold for both playgroups and childcare, which is a first step to full harmonization of originally to separate systems: the financially weak playgroups and more financially independent childcare organizations.

## Facts & figures

### *Childcare*

The percentage of children attending childcare between the ages of 0-4 years skyrocketed from 29% in 2005 to 62% in 2011. This increase caused a decline in attendance in playgroups. Between 2006 and 2009, playgroup attendance declined from 50% to 25%.

The number of childcare organizations grew quickly from 2.032 in 2007 to 2.896 in 2010. There were 11.393 locations for childcare in 2011, in which 5.205 centers for day cares for ages 0-4 years. Additionally, in 2010 there were 515 gastouder (guest parent) agencies. The last few years these numbers are under pressure, because of the financial crisis and major cutbacks in tax refund for parents.

The distribution of funding between parents and the government is changing rapidly: In 2008, 18% of tuition was paid by parents and 59% by the government. In 2011, 27% was paid by parents and 52% by the government. Meanwhile the employers' contributions decreased from 23% to 21% in the same period. The total turnover in childcare was 2.458 million € in 2007 and 4.354 million in 2011 (Factsheet kinderopvang 2012, Brancheorganisatie kinderopvang 2012).

### *Playgroups*

The total cost of playgroups is estimated at € 335 million per year. The share of parents in the cost is approximately 20%. The number of playgroup organizations declined from 530 in 2007 to 425 in 2012 (CBS, 2013). Each of these organizations has multiple centers.

### *Schools*

At the moment there are 6.965 primary schools in the Netherlands.

### *Financial arrangements*

In 2012, the Ministry of Education allocated € 773 million in extra funding for arrangements for children at risk. A large amount of this budget is spent on ECEC (Jepma & Beekhoven, 2013). School boards and schools receive a budget of € 442 million total for early year education, based on weighing socioeconomic factors such as the educational level of the parents).

## **Conditions for high quality ECEC**

Most Dutch pre-schools use ready-made curricular programs, selected by either the local government or the organization itself. Many programs are designed across the preschool-kindergarten ranges, while some specifically target the two-three age range. Preschool curricula vary in nature and content and have been developed by a wide variety of individuals and organizations. Some programs are more comprehensive (*Kaleidoscoop*, *Piramide*), while others focus more on certain areas such as language development (*Taallijn*), or social-emotional development (*Startblokken*).

In 2008 the inspectorate introduced a new quality framework. At first (2008 - 2010), the Inspectorate visited organizations in the larger cities, after 2010 the rest of the country followed. The inspectorate utilizes approximately 50 quality control criteria, based on the following categories:

- Parents
- Quality of work
  - Program
  - The pedagogical climate
  - Educational goals and professionalism
- Development, guidance and care
  - In the classroom
  - With partners in care
- Internal quality control
- Continuous development
- Results / effectiveness

The Education Inspectorate started a baseline measurement in all ECEC locations. The first results were recently published (Inspectie van het Onderwijs, 2013). The general outcome is that most ECEC locations meet the necessary general conditions: the number of children per group, the number of trained professionals per group and the number of days children minimally attend. The pedagogical climate is excellent. However, the Inspectorate also identified some obstacles: the supply of ECEC through accredited programs and referral of children at risk to specific ECEC services are not sufficient. The Inspectorate also has concerns about parent involvement, internal quality assessment and the link between preschool and primary school. Often, municipalities do not have any agreement about targets and preferred outcomes of ECEC.

## Parents

Before 2005, a number of home-based programs were financed by the Ministry of Education, some of them using home languages other than Dutch (e.g. Turkish, Moroccan-Arabic) as language of instruction. The Ministry of Education put an end to home language and culture classes in 2004. At the same time, increasing political and cultural intolerance towards the use of home language of migrant workers was observed. From that moment, center-based programs became the standard. Most of these programs include a module or a specific approach to involve parents in the education and learning of Dutch language. For instance, in the program-oriented approach, parents are informed about the themes that are taught in the playgroup their children attend.

Recently in 2011 the Dutch minister suggested that parents should be more involved with the education of their children and that schools should make an effort to involve parents, promoting a partnership. This message was not warmly welcomed by the media, but at the same time it generated a new debate about the appropriate manner of parental involvement. Parents are most actively involved with the activities of their children in ECEC. However, it starts to diminish in primary school. Research shows that parental involvement and a home learning environment do influence children's school performance (Deforges & Abouchaar, 2003).

## Programs and materials

Based on a set of quality standards, eight programs were approved and used by ECEC organizations. At the same time, a number of non-approved programs are also still in practice.

Looking back, the development of ECEC in the Netherlands passed a few stages. First, the different programs were developed, and a number of programs were approved. There was a lot of discussion about the educational differences between the programs, ending up in a debate about the "best program". Secondly, a lot of energy was spent on the organizational conditions for ECEC. Playgroups and childcare organizations were physically brought together in the building of the primary school and community schools. The third phase focused on professional development. One such large-scale training program is *Vversterk*.

We believe that the next phase will be integration of organizations into edu-care systems. In such a system focus will lie on the broad development of the young child, paving the way for a national curriculum for children ages 0-6 years (Leseman 2007; Leseman & Blok 2004). Edu-care systems are mostly inspired on Scandinavian examples in which childcare and education are highly integrated, with highly educated professionals, one pedagogical regime, on one location.

## Professional development

The Dutch government initiated a major professional development program for professionals in ECEC in the Netherlands. The *Vversterk* program (2006-2014) aims to improve the quality of ECEC by providing training and support. There are basic and advanced modules for professionals in playgroups, child care centers, teachers in grades 1 and 2, teachers in

schools for children with special needs, and medical day centers. Additionally, there is training for managers in the above mentioned centers, combined with network meetings at the regional and national level. Support is offered to teachers in training colleges to become primary school teachers and for vocational education, such as child care education. Over the last six years, almost 26.000 preschool and kindergarten staff received *Vversterk* training about different aspects of the development of the young child (see Aarssen & Hoogeveen, 2011).

In 2008, the Dutch government decided that a major quality improvement is necessary in language and math, due to disappointing results of Dutch scores in international ranking lists (TIMMS, PIRLS, etc.). The Netherlands Institute for Curriculum Development SLO developed new academic benchmarks, starting from the beginning of primary school all the way to vocational school and teacher colleges. The development of these benchmarks is also reflected in the curriculum at teacher training colleges. A growing number of schools has started working with these benchmarks.

For the period of 2011-2015, the Dutch Ministry of Education signed an agreement with 37 large cities, in which a number of goals were agreed upon. These goals focus on quality of education, result-oriented methods, ECEC, parental involvement, extra educational time, summer schools, and the deployment of teachers with higher vocational degrees in preschool settings. Current teachers receive their training at lower vocational levels. According to research findings (Fukkink & Lont, 2007; OECD, 2012), working with teachers who obtain a higher degree, can enhance the effects of the ECEC programs.

## Effects

Around the year 2000, two prospective quasi-experimental studies were conducted to determine the effectiveness of two newly developed pre-school education curricula for 3-6-year olds, *Piramide* and *Kaleidoscoop*. The latter is a Dutch version of the *High/Scope* curriculum (Veen et al., 2000; De Goede & Reezigt, 2001). The new programs were implemented in preschools and the two first grades of primary school, which were former independent kindergartens. Both studies found small to medium-sized effects on Dutch language, conceptual knowledge and pre-mathematical knowledge, with *Piramide* showing more effectiveness. Other studies on the effectiveness of preschool education used a retrospective design and found no reliable effects (Doolgaard & Leseman, 2008).

More recently, De Haan et al. (2013) conducted a prospective design to evaluate preschool education for 3-6-year olds in the city of Utrecht, involving preschools working with an accredited ECEC program, preschools providing regular education, preschools with a high proportion of Dutch as second language learners from low income immigrant families, and preschools with a socioeconomically mixed population. Observations of the implemented curriculum revealed a large variation between classrooms in time spent on teacher-initiated language, literacy and math activities. The use or non-use of an accredited program could not explain differences between classrooms in the way the curriculum was implemented. This might indicate serious problems with implementation of the ECEC programs, but also big differences between teachers. Using the statistical technique of latent growth modeling, the amount of time spent to language, literacy and math was found to predict children's growth in these domains. In addition, a mixed classroom predicted growth. Effects were medium-sized.

A prospective national cohort study, Pre-COOL, that examines developmental and educational effects of preschool and day care initiated in 2010. A nationally representative sample of about 3.000 2 year olds was tracked until age 6. Part of the cohort will be tracked further within the national cohort study COOL through primary and secondary education. The study is ongoing and no conclusions regarding impact can be drawn yet. The classroom quality observations and teacher self-reports of the curriculum show average to higher emotional process quality compared to international standards, and low to average educational quality for both day care and preschool for 0-4 year olds. Variation in quality can be explained by two main factors: The use of an education program (different than what was found by De Haan et al., 2013, see above) and the implementation of a professional development strategy involving frequent systematic team conferences, reflection on practice, and the use of systematic observation and peer feedback. Both have statistically significant effects on process-curriculum quality with medium to large effect sizes. Teacher (pre-service) education also affects quality significantly, but with a small effect. No effects are found for group size, children-to-staff ratio and a number of other structural characteristics (Leseman & Slot, forthcoming). Note that these findings do not indicate effects on children. (These results will be published in 2014).

## Future developments

A number of future trends of ECEC can be distinguished:

- 1) The development of a national curriculum for ECEC: Although the development of different programs reflected the pedagogical and constitutional freedom, in practice this turned out to be very costly due to the retraining of professionals every time a new job is created. The fragmented organizational context including child cares, playgroups, and primary education is another motivating factor to develop a national curriculum for ECEC. The development of a national curriculum is, however, loaded with political and cultural dilemmas.
- 2) Continuation of professional development is another challenge. When the national training program *Vversterk* ends, organizations will have to find new ways to keep their knowledge and expertise up-to-date through training and professional development.
- 3) At the same time, new standards for the curriculum for teacher training organizations are being developed (the *Kwalificatiedossier Pedagogisch Werker* KDPW, coming into effect on 1 August, 2014).
- 4) Presently, the ECEC field is diffuse. Legislation and policies originate from different ministries. Financing comes from different sources and there are different Inspectorate systems (health, education). There is also a huge difference in status between preschool teachers and primary school teachers. Further integration into one system is a huge challenge.
- 5) Another challenge is the question how to incorporate new developments and innovations in the practice of ECEC? E.g. the role of IT in play, teachers' interaction skills, children's self-regulating skills.
- 6) Learning analytics a powerful tool to keep track of individual children's progress, and to set short-term goals for further development. There is a tendency to disregard standard tests for young children, but we need tests and observations to evaluate progress.
- 7) There is an ongoing debate about the effectiveness of ECEC for young children, related to the burden and learning tasks for children. A number of professionals are against the programs and academic testing for young children. This could be explained as a defensive reaction on the intrusion of their professional autonomy. It is, however, a factor to keep in mind.

## Discussion

The organization of ECEC is still fragmented in the Netherlands. Although laws and regulations are aimed at a slow integration, ECEC is still offered at different sites including playgroups, childcare and primary education. There is an ongoing debate about the desirability to create more integral facilities for children between 0-6 years, integrating child care, health, and education. But there are principal impediments to the quick and easy development of these integral facilities (i.e., the incompatible characteristics of public and private funding). However, there are good examples of local initiatives in which integration of services is well underway. National regulations and laws are holding back this development. Although the so-called edu-care system is seen as a tempting perspective, there is no (Dutch) known research showing that an integral approach is more effective. It is believed that an integral approach and organization can offer more organizational advantages.

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## 5. Country position paper on ECEC of Norway

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### *Norway, a late bloomer in ECEC*

A late start followed by periods of intense growth and successive regulation characterizes the development of ECEC in Norway. The first regulations covering all kind of institutions of child protection (1953) created a decisive framework for ECEC, laying down that it embraces children the age 0-6, part time as well as daycare institutions, requesting a kindergarten teacher diploma for the leader of the group and the ECEC-institution, norms for group size, equipment, space, health care and municipal inspection. The norms and inspection system have been gradually changed, but the unitary system as such has never been questioned since.

Only 2% of the children (age 0-6) attended ECEC in 1970, which is a very low number compared to other European countries. Still, it was rapidly increased to 20% in 1980. This first boom was based on the first Kindergarten Act (1975) which established a national system of governance and spread ECEC from the urban to the rural areas: Municipalities got the responsibility for providing ECEC and the duty to plan the establishment of ECEC, the country governor for the approval and supervision of public and private ECEC and the Government for the quality, management and financing of the entire ECEC-sector, providing earmarked grants for the running of all kindergartens. The White Paper was named “Preschool” (NOU1972:39) but the Parliament decided to use the name “Kindergarten” to indicate that these institutions should not be schools. This attitude is also expressed in the fact that most of the ECEC institutions are located in separate buildings and the existence of a specialized teacher education for working with children zero to six.

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The sector has developed successively and extensively. In 2003 all political parties (except of one) made an ECEC agreement promising a national maximum price for parents, to raise the number of institutions and to equalize the funding of private and public ECEC. When the government in 2006 promised “full coverage, high quality and low price” Norway experienced a second boom in the number of ECEC. Within a period of seven years (2005-2012) the numbers in ECEC increased with 62.650 children, mainly one and two years of age (2005-2012; 62.650 more children in ECEC).

Today Norway has a well-organized system of universal, unitary ECEC services for children under school age<sup>8</sup>. There is a growing interest in using ECEC not only for its own purpose but also to solve societal problems, which has led to a never seen number of Public Commission / Expert Reports and White Papers discussing ECEC during the last five years. This paper will provide a sketch of the current situation and outline some topics and challenges.

## Basic facts

Norway is a welfare state with 5 million inhabitants and a birth rate of 1.85 at the outskirts of Europe. The country has an integrated ECEC-system (combining education and care) for children age 0-5 under the lead of one ministry. It used to be the Ministry of Children and Family but since 2006 it is the Ministry of Education and Research. There are several kinds of ECEC-settings, called “barnehage” which is a literal translation of the German word Kindergarten:

*Ordinary barnehage* (usually open from 7.30 – 16.30) center based ECEC, offering both fulltime and part time. 95% of the children are enrolled for fulltime, meaning more than 33 hours/week. In 2012 the total number of children was 286.153. In total there exist 6.397 ECEC-institutions (45 children on average /institution<sup>9</sup>). The number of institutions has declined with 225 during the last five years, as small institutions are merging. A third of the institutions have less than 30 children and only 11% have more than 80 children (Vassenden et al, 2011). The trend is towards larger institutions and new ECEC-settings with 200 – 300 children are common in the larger cities.

*Family barnehage* (usually open from 7.30 – 16.30) is daycare for a small group of children provided in private homes under weekly guidance of a pedagogical supervisor. A family kindergarten consists of two or more groups or linked to an ECEC institution. The number of children per home was 5.1 on average in 2010. The number of such provisions is declining as the number of ordinary barnehage is increasing. About 7.000 children were enrolled in 2011.

*Open barnehage* (usually open 4 hours 3-5 days weekly) a parent-child group/play group lead by a preschool teacher. There is no formal enrollment, but “open” access on arrival. In total it is available for 6.600 children. This is mainly used for children under 3 and functions as a kind of “introduction” or “substitute” to mainstream ECEC<sup>10</sup>. A small research project is in progress that will provide more information about the benefits and short comings of Open barnehage.

<sup>8</sup> In Norway children start in primary school the year they reach 6 years of age.

<sup>9</sup> The low number of children/institution is also a consequence of a scattered population in large rural areas.

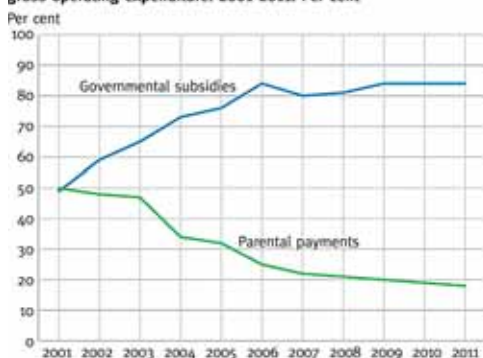
<sup>10</sup> An example of parental involvement in Open Kindergarten <http://webcast.uis.no/media/parental-involvement>

All these kinds of kindergarten, regardless of ownership, are regulated by the Kindergarten Act (Ministry of Education and Research, 2005) and the national curriculum (Ministry of Education and Research, 2006-2011).

There are mainly two kinds of ownerships; municipal and private. The latter hold 53% of institutions, 47% of children (2013). The private institutions are owned by individuals, parents, companies and NGOs which are organized in a variety of ownership arrangements. During the last years the number of commercial enterprises with links to international investment funds, running ECEC for profit, has increased (Pettersen, 2013). Unlike the regulations for schools which prohibit running them for profit, it has been legal to make profit from ECEC. This has led to several conflicts between these enterprises and the municipalities who have to provide them equality in funding, as far as they offer the same standard as the municipal ECECs. New regulations on the use of public funding was however introduced 2013.01.01. Section 14a in the Kindergarten Act requires of owners that public funding and parental fees shall be used to the benefit of the children in the kindergarten. Specific requirements on how to ensure this is laid down in the new regulation.

*Costs and Funding:* Parents pay the same price for ECEC for children under three as for ECEC for older children. There is established a maximum price on national level, applicable to private and public institutions. In 2011 Parents accounted for 18% of gross operating expenditures in private kindergartens.

**Parental payments and governmental subsidies of kindergartens gross operating expenditure. 2001-2011. Per cent**

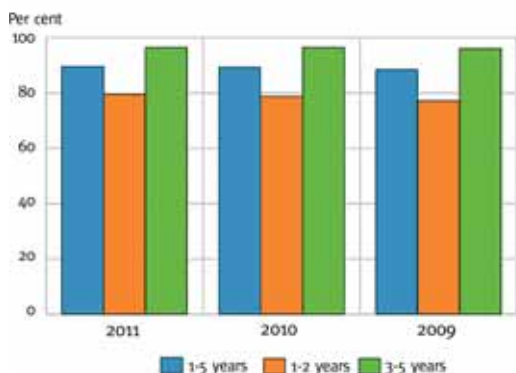


Parents paid a lower share of private kindergartens' expenditures compared to previous years. State and municipal subsidies accounted for 83% of private kindergartens' expenditures in 2011. This high level of funding is a prerequisite for ensuring children's access to ECEC as well as the acceptance of the government's claims and regulations to ECEC by the owners. Since the introduction of maximum parental fees in 2004 the fees have been reduced by 35%.

## ECEC for all children

At the end of 2012, 90% of all children aged 1-5 years attended kindergarten. The number of children in ECEC is 286.153. Due to paid parental leave of approximately one year, only 3.8% of infants (less than 12 months) are in kindergarten. (Parental leave is 49 weeks with 80% pay or 59 weeks with 100% pay; 14 weeks is reserved for the mother, 14 weeks for the father and the rest can be shared. Partial parental leave is also possible)

**Percentage of children in kindergarten in different age groups**



The right to a place in kindergarten was introduced by the government on 1 January 2009. The proportion of children aged 3-5 years was 96.6% and for children aged 1-2 years 80.2% in 2012. The biggest change during the last years is the coverage for children aged 1-2 years which has increased with 10.9 percentage points.

Who are the 6.255 children in age group 3-5, who do not attend? It seems to be difficult to find a clear answer to that. There are some trends like: children from families with many children, families from non-western countries (Sæther, 2010) are less probably attending than children from high educated parents. But there seems to be several, value based reasons for not using kindergarten: protecting the child against too much stimulation and stress, a long distance to kindergarten, playmates in the neighborhood, using the right to decide for their children, value of using the day together with their children. For immigrant parents they were concerned with promoting the mother tongue development but wished that their children should learn the second language in ECEC at age 5 (Seeberg, 2010). The parents seemed to have knowledge about ECEC, but they thought they could prepare children for school without enrollment in ECEC.

A Child Care study carried out by Statistics Norway in 2010, shows that children whose parents have low education, children from families with a low income and children of non-employed mothers with non-western background and with many siblings below school age, had the lowest attendance in ECEC (Moafi & Bjørkli 2011). A comparison with a similar study in 2002 however indicates that there has been greater social cohesion in the use of kindergarten. A greater percentage of children with an immigrant background and low income participated in ECEC in 2010 compared to 2002 (Utdanningsdirektoratet 2012).

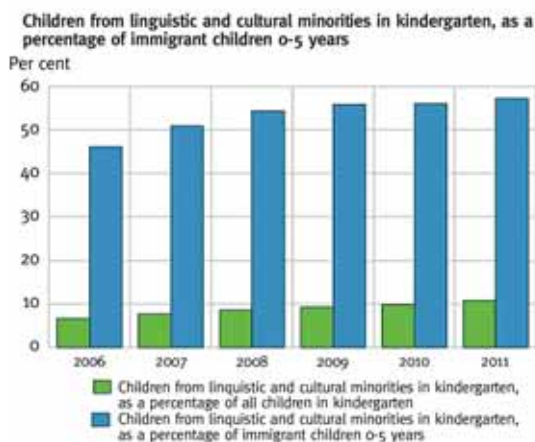
### **Inclusive education**

The inclusion of children from disadvantaged background and children with special educational needs in ordinary ECEC - setting has been a leading idea for many years, giving them entrance priority since the first Kindergarten Act in 1975 (Lundebø & Ytterhus, 2011). Regulations in the Kindergarten Act of 2005 in Section 13, give priority to children with disabilities and also children object to provisions under the Child Welfare Service Act.

The Kindergarten Act § 2 states that the Kindergarten shall have a preventive function and contribute to equalize social inequalities. Furthermore the Kindergarten shall take account of

for children's age, level of functioning, gender, and social, ethnic and cultural background. The term “*children with special educational needs*” covers a wide range of children with a reduced level of functioning, chronic illness, behavioral and linguistic difficulties and similar. These children make about 4.9% of the children enrolled and are entitled to get special educational support, according to the Education Act. It is the municipal Pedagogical-psychological Counseling Service that provides expert opinions regards this entitlement, as well as guidance to the kindergarten. In 2009 only 1.9% of the children got special educational support, which is less than the 4% of pupils in first grade in school getting special educational support. It might look like the Kindergarten is not observant and active enough to mental and behavioral problems as these problems more often are discovered in primary school settings (Kristofersen, 2007). There is little research indicating how specific features of the kindergarten influence children with different kind of learning disabilities. Even though the inclusive approach integrating children with special needs in mainstream ECEC - settings is the dominating model, there exist a few special units for children with multiple functional problems, either as a special group in the mainstream ECEC setting or as special kindergarten (Lundeby & Ytterhus, 2011).

At the end of 2012, 34.400 children from linguistic and cultural minorities attended kindergarten, which is 12% of the children in ECEC. Norway is currently home to 593.321 immigrants and 117.144 Norwegian - born to immigrant parents. These two groups make up 14% of the population of Norway.



Even though the participation of migrant children has increased during the last years, there is still less participation. Whilst 90% of all children age 1-5 attend ECEC, 71% of the migrant children age 1-5 attend (Statistics Norway 2012). Low participation has been explained by several factors as economy, geographical distance and lack of knowledge about ECEC (Bogen & Reegård 2009, Gautun 2007, Kavli 2001 in NOU2012:1). The Child Care Study 2010 by Statistics Norway showed that 9% of the households did not apply for a kindergarten place because of the cost (Moafi & Bjørkli 2011).

The *Oslo Project 1998-2003*, offering 5-year-old children and later 4-year-old children free preschool four hours a day in two districts with a large proportion of immigrants, indicates that economy is an important factor (Nergård 2003, 2006). When the Oslo project changed from a free kindergarten (four hours a day) to offering 5-year-old children a place in kindergarten at the cost of 650 NOK / month, there was a decline. A third of those who

would have used ECEC did not continue, and most of them were bilingual families with low income.

There is research about the long term effect of the *Oslo Project*. Drange and Telle (2010) analyzed the effect of this intervention on the school performance of the children from immigrant families 10 years later (age 16). The research method was to use statistics in a “difference-in-difference approach” that takes advantage of the variation caused by the intervention being implemented in two districts in Oslo, leaving other similar districts unaffected. Looking at the children’s achievements in grade ten, the grade point average of girls had increased substantially more in the intervention districts than in the comparison districts; resulting in an effect estimate of more than a quarter of a standard deviation. But there was no significant change in boys’ performance, and no support for disadvantageous effects on non-cognitive outcomes. The data did not enable to say whether this gender difference occurred because girls benefit more than boys from attending preschool or because they attend preschool more. Drange & Telle (2010; 29) conclude: “Preschool free of charge was offered to children in particularly challenged districts in Oslo with a high share of immigrant families. Thus, our results do not necessarily generalize to the population of children from immigrant families in general. However, as most western cities with a substantial population of immigrant families experience a concentration in particular neighborhoods, our findings might suggest that provision of free preschool could be a powerful weapon in the battle for improved educational outcomes, integration and social mobility of girls from immigrant families in such areas.”

## Ratio and child group

There are no precise regulations for the child-staff ratio, but the Kindergarten Act states that there should be a sufficient number of staff to do satisfactory educational work. A sample survey from 2010 showed that there was an average of 3.4 children per adult in groups of children under three years of age, 5.5 children per adult age 3-5 and an average of 4.6 children per adult in groups for age 1-5 (Vassenden et al, 2011). Statistics indicates variations between kindergartens showing that in the 10% of the kindergartens at the highest end of the scale there will be up to 2 more children per adult (6.9) than in the 10% of the kindergartens with the lowest ratios (5.1). Public ECEC has a lower child-adult ratio than private. There is also a constant struggle on municipal level to maintain a good ratio-adult ratio. Even though the report from the Public Commission for a new Kindergarten Act (NOU 2012:1) suggested to request a 1:3 ratio for children under 3 and 1:6 for children 3-5, the Parliament decided to postpone regulation of this until 2020 (White Paper 24, 2012-2013).

There exist no regulations for group size, and the consequences of the enormous quantitative growth during the last ten years have been new ways of organizing the children in flexible environments instead of separate groups and increased numbers of children per group. There are no national statistics about the size of the child group, but one study shows that in 2010 there was average of 12.4 children in groups for age 1-2 (Vassenden et al, 2011), another that the group size for children under 3 varied from 11.5–16.5 children (Riksrevisjonen, 2009). Average group size for children 3-5 years of age was 18.6 children, and for groups 1-5 years of age the average was 17.6 children. There is also a trend that the newest ECEC-settings have the largest groups. Parents, teachers and researchers have been concerned about the large number of 1-2 years olds in flexible groups. One could say that during the last years a double experiment has taken place: the massive expansion of the younger age group into ECEC and the introduction of larger groups organized in untraditional ways. According to these

worries the Public commission's report for a new Kindergarten Act (NOU 2012:1) suggested to regulate the child's right to belong to a child group; meaning a group which is stable, consisting of a limited number of children for which a preschool teacher and additional staff are responsible. Even though the Ministry does not favor the trend towards larger groups, they argue that it would be difficult to find a norm which fits the varied conditions in the different settings (White Paper 24. 2012-13). Accordingly the Parliament decided to use vague formulations as "considering to implement the child's right to belong to a child group and a group size that shall be appropriate".

This leaves important issues of structural quality in an insecure position for the future.

## Staff and staff competence

A total of 88.800 people, working 71.600 man years, were employed in kindergartens at the end of 2011. Ten per cent of all employees were men, which is the same level as the previous year. This is a high percentage compared to other European countries, but still far from the national benchmark set to be 20 percent. Nevertheless, the ten percent are achieved by systematic work from the ministry, municipalities and preschool teacher education to promote work in ECEC for men. Conferences, network groups, a website<sup>11</sup> a guideline book on gender equality (Rossholt, 2006) and continuous action plans like "Equality 2014". The Kindergarten Act requires a Preschool teacher degree (BA, ECEC age group 0-6) for those who are for those who are head teachers/managers or pedagogical leaders in child groups. There are further regulations about 7-9 children under three per preschool teacher and 14-18 children aged 3-5 per preschool teacher. This implies that even if there might be a good child: adult ratio there is a lack of competence as only 32% hold a BA in ECEC, 12% have a child care degree on upper secondary level. 57% of the staff is without any relevant education and 25% of the staff working in ECEC has only 10 years of Compulsory School. This lack of competence in the team promotes to the laymen's culture and not the professional development. The White Paper No 24 (2012-13) introduces a system of competence development which will allow for more staff with child care education on secondary level, but no regulations for a higher proportion of preschool teachers were laid down.

The lack of staff competence is the most urgent challenge for the ECEC sector in Norway, and especially the low proportion of preschool teachers. The UNICEF Innocenti Report 2008 sets 10 bench marks for high quality ECEC in economically advanced countries, of which Norway reaches eight, besides those about staff competence: 80% of all child care staff trained and 50% of staff in accredited EC is tertiary educated with relevant qualification. The Ministry's campaign for better recruitment to BA in ECEC in 2012 and 2013 has not lead to a higher amount of applicants to teacher education. There is a need for more profound actions to ensure the minimum of 50% ECEC professionals on tertiary level.

## Parent's role in ECEC

The Kindergarten Act (1995) states, that every kindergarten has to establish a parents' council and a "Coordinating-Committee" with parents/guardians and staff, to ensure the collaboration with the children's homes. The owner of the kindergarten may participate if he/she so wishes, but may not have more representatives than either of the other groups. The

<sup>11</sup> <http://www.mennibarnehagen.no/>

parent's council shall represent the parents' shared interest. The coordinating committee's task is to participate in discussions of the aims and educational practice and to establish the kindergarten's annual plan. Parents are encouraged to take part in quality monitoring through meetings, formal and informal conversations and regular surveys. Such annual surveys are quite common, but less in the small kindergartens (Vassenden et al, 2010). There might be several reasons for this: large institution have more resources to do the survey and may have a greater need to collect information in a formal way. The possibilities for informal face-to face contact are better in small institutions, but the lack of anonymity can also provide a lack of professional distance and hinder some parent's in telling their opinion. Several municipalities use these parent surveys on ECEC systematically for quality improvement. In general, the kindergartens have put more emphasis on written information to and from parents.

A national survey (TNS Gallup 2009) shows that 93% of the parents are content with ECEC-services in relation to their children's needs. Mostly appreciated is the child's well-being, followed by the geographical proximity and the way the staff cares for their child. In general it seems like parents in private settings offer more positive answers than parents in public ECEC, but the differences are small (St. meld. Nr 41, 2008-09). Parents with low income and education are less content with the cooperation than parents with high income and education. This might also correspond with the findings of Stefansen & Skogen (2010) who identified different ways of how parents of one year old children relate to ECEC. Whilst middle class parents identified with the work in ECEC, working class parent's only identified with some aspects of ECEC, they also showed some kind of "quiet"(tacit) distancing. This tendency to detach the private sphere from ECEC is explained as a working class response based on the life experiences of people who have little influence and power outside their home (ibid). This implies that the establishment of partnerships with parents has very different starting points, which should be taken into account by the staff.

Parents in ECEC are also given a public voice and increased influence, as there is established a National Committee of Parents in ECEC, which receives support and is used as a partner in policy making<sup>12</sup>.

There is a language challenge as the ECEC sector also is immersed by economic terms, talking about parents as "clients" or "users of welfare services". Viewing parents as buyers on the ECEC-marked is another discourse than the discourse of a shared mandate in child raising.

## Curriculum

As the number of ECECs increased during the 1990s the attention towards the aims and content of such institutions was growing and in 1996 the first national *Framework Plan for Kindergartens* was introduced as a legally binding document for public and private ECEC (Ministry of Children and Family Affairs 1995). This 136 page book was highly valued amongst preschool teachers as a longed for text, describing the holistic pedagogical work they were aiming at. It was perceived as an important mission statement of what society sees as the function and purpose of ECEC and as recognition of the preschool profession (Alvestad 2001). The Framework Plan got a warm reception, even though the state did not provide resources for the staff to gain knowledge about curriculum theory and practice. An implementation study (Retvet, Skaug & Aasen 1995) showed that the framework plan confirmed the existing beliefs that play and social interactions are crucial for child development. These intentions were implemented and strengthened, whilst the request of

<sup>12</sup> <http://www.fubhg.no/samarbeid-hjem-barnehage.176553.en.html> as well as a Facebook group.



early language learning in the Framework Plan was not conceived as a central learning task by the staff.

According to such findings the impact of early education for lifelong learning and active participation in society is more evident in the second *Framework Plan for the Content and Tasks of Kindergartens* (2006). This curriculum is a shorter text of 50 pages describing the social mandate of kindergartens as pedagogical undertakings obliged to work in close collaboration and understanding with the homes of children. The content of kindergartens is described as care and upbringing, play, learning, social and linguistic competence and the kindergartens as cultural arenas. It further divides the content in seven learning areas that have clear links to school subjects: Communication, language and text; Body, movement and health; Art, culture and society; Nature, environment and technology; Ethics religion and philosophy; Local community and society; Number, spaces and shapes. There are set goals to strive towards followed by obligations for the staff. For instance one of the six goals for communication, language and text says: "Through work on communications and texts, kindergartens shall help to ensure that children use their language to express feelings, wishes and experiences, to solve conflicts and to create positive relationships through play and social interactions. (...) In order to work towards these goals, staff must facilitate meaningful experiences, and create time and space for the use of non-verbal and verbal language in everyday activities, play and in more formal situations" (Framework plan 2006, 34). In this manner the framework plan is not a manual providing a check list of learning outcomes to achieve, rather indicating goals to strive towards and their implications for the staff. The work has to be planned, documented and assessed systematically and described in the annual plan of the institution, but there is no request of using specific methods. The kindergartens themselves decide how, when and for which purpose they will do the assessment.

The emphasis on learning and documentation has led to a debate whether the kindergarten is losing its "distinctive character" of intertwining care, play, experience and learning, moving towards an instrumentalist "preparing for school" approach (Moser & Røthle, 2007, Pettersvold & Østrem, 2012). This anxiety is mostly expressed by pedagogues and has also led to some resistance towards the suggested request of mandatory surveys of the individual child's language achievements<sup>13</sup>. An extensive expert report evaluated that none of the available tools and methods could be recommended as suitable and valid for the purpose of language assessment of all children in ECEC (Ministry of Education and Research 2010/2011). In the White paper (Meld. St. 24, 2012-13) the government suggests an obligation to offer a language survey to children who are deemed in special need of language support.

The Framework plan puts great emphasis on an age appropriate pedagogy and content, leaving large flexibility to the ECEC institution in adapting the framework to the needs of the different age groups. Much focus is put on play, stating that play should be given "a prominent role in life in kindergarten" both indoors and outdoors. Play is not only seen as a way of learning, but also as a part of childhood and child culture created among peers. This emphasis on childhood as a phase of intrinsic values is extended with the children's right to express their views on the day-to-day activities and that weight should be given to their opinions. This is based on The UN Convention on the Child's right, but this focus on the agency of the child can also be seen as a prolongation of the child centeredness in the Nordic curriculum tradition.

The Norwegian Framework Plan may be seen as an example of an intertwined education and care approach. There are tensions embedded, but most of all there is the perspective of

<sup>13</sup> See Conference Proceedings in *Nordisk Barnehegeforskning* Vol 3 No 3 (2010), The Journal of Nordic Research in ECEC.

the ECEC setting as an inclusive community and the fostering of children's friendship and play. There is still a freedom of methods and the possibility of local adjustment. The latest revised version did also pay attention to the fact that the country has a multicultural population, by taking the Human Rights Declaration as a starting point instead of a single religion.

What can be learned from Norway's experience with a National curriculum? It is easier to get the curriculum accepted if it is based on the tradition of this country. In Norway preschool teachers felt recognized as a profession and appreciated all the "prose" of the educational work, which never had been put in an official written text (due to ECECs oral knowledge base).

The curriculum is often used to legitimate the teachers' actions, especially in controversial issues like gender equality. Thus, the staff can underpin that they act on a societal mandate and not on personal opinions. The aim of the framework plan is to give head teachers (managers) of kindergartens, pedagogical leaders and other staff a binding framework for the planning, implementation and assessment for the activities in kindergartens. The framework plan also provides information to parents, owners and supervisory authorities. This implies that parents can get a reference of what they might ask for, demand or not. Society can also set standards to promote more equal standards within the sector or to strengthen some elements.

Trust between the national authorities designing curriculum and the practitioners is a prerequisite for the social and educational mandate to be observed in the ECEC. If the curriculum prescribes too detailed activities and methods it may be perceived as control. Allowing room for and supporting professional judgment will enhance the given responsibility and the reflective practice of teachers.

The most controversial part of the framework plan is the issue of documentation and assessment of the work, which needs to be elaborated further.

### **Challenge for policy makers in Norway: The lack of preschool teachers is the most urgent challenge for the ECEC sector in Norway.**

It is not possible to offer high quality ECEC without a majority of well qualified teachers. The UNICEF *Innocenti Report* 2008 sets 10 bench marks for high quality ECEC in economically advanced countries, of which Norway reaches eight, besides those about staff competence: 80% of all child care staff trained and 50% of staff in accredited EC is tertiary educated with relevant qualification. The Ministry's campaign for better recruitment to BA in ECEC in 2012 and 2013 has not lead to a higher amount of applicants to teacher education. There is a need for more profound actions to ensure the minimum of 50% ECEC professionals on tertiary level.

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## 6. Country position paper on ECEC of the United Kingdom

Prof. dr. Edward Melhuish

Education becomes compulsory in the term after a child's fifth birthday in the UK. There has been a transformation in provision before school age, i.e., ECEC since 2000, and all ECEC is under a common regulatory framework, controlled by the Education ministry. In 2004, legislation established universal free ECEC provision of fifteen hours per week from age 3 years to the start of school. This is being extended for the 40% most disadvantaged families down to age 2 years from 2014. Childcare for working parents has been expanded and local authorities have a duty to ensure adequate provision of childcare for working parents. Childcare above the free fifteen hours per week is paid for by parents with support through tax credits for low income families. There have been improvements in flexible working and parental leave. Britain complied with a European Union directive giving all parents with young children the right to ask for flexible and/or part time hours in 2003. In the first year of this policy over a million parents requested changes to working hours for family reasons. Maternity leave is now one year, with nine months paid at close to the minimum wage.

Research from the Effective Provision of Preschool and Primary Education (EPPE) project found that the quality of the provision had long term impact on children's cognitive and social development and that quality was more likely to be provided by better qualified staff (Sylva et al., 2004). Government responded to these findings with policy changes enshrined in the Childcare Act 2006. These included a defined curriculum, the Early Years Foundation Stage (EYFS) that applied from birth to five years, and was required in all registered settings, and a requirement that settings had to provide some flexibility in hours to suit working parents.

ECEC services in the UK may be provided by the state or by private, voluntary or independent (PVI) sectors, and include relatives, childminders (family day care), day nurseries, nannies, children's centres, nursery classes, nursery schools, and playgroups. The last three only cater to 3-5-year olds (sometimes 2-year olds) and usually on a part-time basis. The other types of ECEC may be used by children anytime between birth and starting school, and may be used on a part-time or full-time basis. Children's centres (integrated centres) were comparatively rare until recently but have become an important part of ECEC provision in the last 10 years. Sectors vary in terms of workers' qualifications and, in turn, quality. State-funded provision is staffed with teachers and nursery nurses, while in the PVI sectors the presence of graduate workers is limited, at around 4% of the workforce (Phillips, et al. 2010; Gambaro, 2012). In England 59% of children under three received some form of non-parental care in 2010: 39% were in formal (paid) care (33% in centre-based care and 7% with a childminder or nanny), while 33% used informal (unpaid) care (mostly grandparents). (Smith et al, 2012). While 40% of three year olds are in the state sector, 60% were in PVI settings (Gambaro, Stewart & Waldfogel, 2013, 2014).

#### *Relatives*

While there have been large regional, class, and temporal variations, it has remained true that relatives have remained as a major form of daycare used by employed or non-employed mothers, particularly for children 0-3 years of age, with a grandmother being by far the most common relative to provide this service.

#### *Childminders*

A childminder refers to an unrelated person caring for a child in the childminder's home for monetary reward. Other countries use the term "family day care". For the working mother with no available relatives, the childminder has been a frequent source of childcare. In 1948, childminders became obliged to be registered, although it has always been unclear as to how many childminders actually fulfilled this legal requirement. The number of registered childminders has almost halved, from over 100.000 in 1992 to around 56.000 in 2012. This is largely as a result of the provision of free part-time ECEC places for all 3- and 4-year olds.

#### *Nannies*

The term "nanny" is used to refer to a woman who is paid to care for children in the children's own home, and this has been a social institution in Britain for a long time. Throughout the 19th century there was a steady growth in the use of nannies amongst the middle and upper classes which was quite unrelated to maternal employment, as women in these classes did not seek employment. "By the end of the 19th century you were barely considered middle class if you did not have a nursemaid for your children" (Gathorne-Hardy, 1972).

The heyday of the British nanny was the period 1850 to 1939, but the British nanny has remained an integral part of the social ecology of the ruling class, and has undergone a revival amongst the middle classes where the increase in the numbers of well-paid professional women in employment has led to an increase in demand. Sometimes two women will share a nanny to care for their children, which will reduce costs and provide children with playmates. It would appear that the great majority of nannies have a childcare qualification.

#### *Day Nurseries*

Day nurseries began to appear in significant numbers around the turn of the century, and in 1906 the National Society of Day Nurseries was founded, encompassing 30 day nurseries. With the outbreak of the First World War, the demand for women's labour increased

dramatically and so, consequently, did the nurseries, with 174 existing in 1919 (Ferguson & Fitzgerald, 1954). However, with the decline in the demand for women's labour in the inter-war years, day nurseries declined.

However, with the Second World War and the subsequent huge increase in demand for women's labour, local authorities again became involved in setting up publicly funded nurseries. Expansion was rapid, and in 1941 there were 1.450 full-time nurseries catering to 68.181 children (Ferguson & Fitzgerald, 1954).

After the war, day nursery provisions declined, so that by 1974 there were only 517 day nurseries, even though there were more employed mothers in 1974 than in 1944 (Tizard, Moss, & Perry, 1976). The provision of day nurseries has been from two sectors: local authority Social Service nurseries and private nurseries. Overwhelmingly, local authority nurseries were restricted to children deemed to be in need of extra help or "at risk," and such nurseries are not used to any appreciable extent by dual-earner families. Local authority day nurseries have decreased markedly with the development of children's centres (see below), and they are becoming part of history. Private nurseries may be based at a workplace or in a community or voluntary organization, or run by private individuals or companies. Private day nurseries run by private sector companies are becoming the most typical and are a major sector in the economy.

#### *Nursery classes and nursery schools*

Nursery schools and nursery classes provide early years education for 3- to 5-years-olds. A nursery class is part of a primary school, whereas a nursery school is a separate establishment that is only used by children under five years old. Both are controlled by the Local Education Authority. They provide a range of structured educational experiences based on learning through play developed for pre-school children. Nursery classes and schools are staffed by qualified teachers and qualified assistants / nursery nurses, with classes typically having up to 26 children, usually aged from 3 up to 5, but this is now being changed to 2-5 in some circumstances. In most nursery classes and schools children attend five half-days each week during school term. Times are approximately 9.00 to 11.30 am and 12.45 to 3.15 pm each day, and provision is free.

#### *Playgroups*

A playgroup provides care and socialisation for children from 3-5 years. Playgroups are less formal than nursery classes or schools and do not provide full-time care, operating for only a few hours a day during school term time, often in the mornings only. They may have qualified or unqualified staff or volunteers, and are run by private individuals or charities, and occasionally by local authorities. The most common type of training is based on short Pre-school Learning Alliance (a voluntary organization) courses. In the United Kingdom, since around the 1980s, the traditional territory of the playgroup has been encroached on by the expansion of more formal nursery education, and playgroups often now cater only for two and three year olds before they move onto a nursery school.

#### *Children's Centres*

Integrated centres started as pioneer centres from the 1970's onwards integrating childcare and education and sometimes other services for children from 0-5 years. It was only with the evidence of their success from the Effective Provision of Preschool Education (EPPE) project (e.g. Sylva et al., 2004) that they have started to appear in substantial numbers in the last 10 years. They integrate the provision of childcare, pre - school education, and other services used by families with a young child. They received a major boost when the government's Sure

Start programme decided to adopt the children's centre model for service delivery to young children and their families. Often they have been formed when a nursery school is expanded in its scope as providing not only for children from age 3 years, but also for children from infancy onwards. Children's centres are most often targeted for disadvantaged communities. By 2005 there were about 180 in England and by 2010 there were claimed to be over 3500 in England. Although it is unlikely that more than 30% of these offered the full children's centre range of services. The issue of whether they should be made universally available has fluctuated in government policy with currently a focus on disadvantaged families, and with the recession they have reduced in number. Typically such centres would have several qualified teachers, plus other childcare qualified staff plus some unqualified staff. The exact mix of staff would vary from centre to centre and between local authorities who vary in their commitment to ECEC. The level of resources in such centres is usually quite high by British standards. Children's centres in a complete form will deliver:

- childcare from birth onwards;
- early education usually from 2-5 years;
- family support including parenting programmes;
- outreach to parents;
- services to reach children at risk of abuse or neglect through help for their families;
- child and family health services;
- sometimes additional services.

## Ratios

Adult: child ratios for settings are regulated as follows:

### *Group care:*

Children under 2 years of age	1:3
Children 2-3 years of age	1:4
Children 3-5 years of age	1: 8 or 1:13 (if led by qualified teacher)

### *Individual care:*

Children under 1 year of age	1:1
Children 1-5 years of age	1:3

There is currently active debate within government about increasing the ratios to enable staff to look after more children if qualified (DfE, 2013). This situation may therefore change. It is currently suggested that settings that meet one of the following criteria may be able to operate higher ratios:

- 70% of staff qualified to at least Level 3;
- 100% of staff qualified to at least Level 3;
- 100% of staff have at least a C in English and Maths;
- at least one graduate in the setting plus 70% of other staff qualified to at least Level 3.

The attempt by the current Minister for Children to increase ratios – more children per adult – particularly for the under-threes, was blocked by the Deputy Prime Minister, on the grounds that it was against current professional wisdom, so the current ratios may stay.

### *Staff training and qualifications*

Nursery schools and classes are required to employ a teacher, PVI settings are not. It was a stated policy intention to have one graduate – a teacher or an Early Years Professional – in



each PVI setting by 2010, but this is guidance not a statutory requirement. Staff in the PVI sector with managerial responsibility must have a Level 3 vocational qualification, and half of the remaining staff in the setting must have at least a Level 2. These requirements low, and an independent review suggested that the courses leading to early years qualifications at levels 2 and 3 are inadequate, because applicants are weak academically and the courses fail to prepare students for the job (Nutbrown 2012). A level 3 qualification can be one year of training on the job, with little exposure to different practice and college-based learning.

### *National Curriculum*

The Childcare Act (2006) specified that all settings must follow Early Years Foundation Stage (EYFS) curriculum, starting in 2007. The EYFS (DfE, 2012) is a statutory national curriculum for children from birth to age five, which specifies learning and development objectives. The curriculum was widely welcomed suggesting that the goals it embodies are broadly shared by those working with children (Tickell 2011). The EYFS was revised to make it simpler to apply following a review (Tickell, 2011). Children are assessed on the curriculum at the end of the Foundation Stage (reception class, age 5 years), and attainment for each child is recorded on national databases.

The EYFS Profile summarises children's attainment at the end of the EYFS. Assessments are based on observation of daily activities and events in three prime and four specific areas of learning, and the three learning characteristics:

The prime areas of learning:

- communication and language;
- physical development;
- personal, social and emotional development.

The specific areas of learning:

- literacy;
- mathematics;
- understanding the world;
- expressive arts and design.

The learning characteristics:

- playing and exploring;
- active learning;
- creating and thinking critically;

A completed EYFS Profile has 20 items; the attainment of each child for 17 Early Learning Goals (ELG), and a short narrative of the child's three learning characteristics.

The primary purposes of EYFS Profile data are:

1. To inform parents about their child's development against the ELGs and the characteristics of their learning.
2. To support a smooth transition to Key Stage 1 (first stage of primary school) by informing the professional dialogue between EYFS and Key Stage 1 teachers.
3. To help primary teachers plan an effective, responsive and appropriate curriculum that will meet the needs of all children.

### *Inspection and Quality Control*

All settings are inspected by the Office for Standards in Education, Children's Services and Skills (Ofsted). Ofsted has inspected schools since the early 1990s, and since the

early 2000s has also been responsible for regulating and inspecting all ECEC settings. An Ofsted inspection assesses performance based on academic and other measured outcomes and a visit to the setting. Inspectors talk to staff, children and parents and carry out direct observations (Ofsted, 2011). After the inspection, settings are given a summary judgement of inadequate, satisfactory, good or outstanding. In 2012 Ofsted rated 74% of settings as good or outstanding compared with 65% three years previously. There are some variations between inspection to state and PVI settings but typically they produce 17 judgments based on the EYFS and also cover health and safety. Ofsted has outsourced many inspection activities, and PVI settings and state settings are inspected by different teams. Ofsted inspection reports for settings are publicly available on the internet.

### *Staff qualifications*

Between 2007 and 2011, the proportion of full daycare staff with at least a Level 3 qualification grew from 72% to 84%. The proportion of those with a degree or higher increased from four per cent to 11%. The Early Years Professional Status (EYPS) was launched in 2007 as a route for career progression within the sector and for talented, well-trained graduates to enter the profession. There are now 11,000 Early Years Professionals across the country and, in 2011, almost a third of non-LA run full daycare providers had one or more EYPs (Brind et al., 2012). A government review of training of ECEC staff (Nutbrown, 2012) pointed out that the quality of the workforce and the qualifications on offer are not good enough. Staff are on low pay and in too many cases lack basic skills. Since the 1970s, the number of early years qualifications has grown exponentially and the review noted over 400 early years qualifications, many lacking rigour and depth. About half of these were regarded as “full and relevant” to the EYFS. As a result of this review and in an effort to improve staff early years qualifications the government proposes to raise the quality of those entering the workforce by imposing tougher entry requirements.

## **Early Years Educators**

It is proposed that there will be new and better qualifications at Level 3, to qualify people to become ‘Early Years Educators’. The government proposes tougher criteria for the new qualifications to ensure that these criteria meet the needs of employers and prevent the proliferation of qualifications that has been a problem in the past. Training providers will be expected to include a high proportion of practical work experience in their courses. Entrants will be expected to have secured at least a C grade in GCSE English and mathematics. Additionally it is proposed that apprenticeships will offer a high quality route to becoming an Early Years Educator.

Early Years Teachers. It is proposed to have more high quality graduates to work in the early years. Early Years Professionals have helped improve the quality of early education but public recognition of their status remains low. Early Years Teachers will specialise in early childhood development and meet the same entry requirements and pass the same skills tests as trainee school teachers.

There are still major problems with the current system: ECEC staff have low pay relative to other professions and other countries and perceived low status of what is a very important role. Training often shows a lack of rigour and depth with a confusing range of qualifications. Low wages for staff working in the early years limit the scope for further professionalisation, with many staff paid little more than the minimum wage. In 2011, the national minimum wage for those over 21 was £6.08 an hour. Those working below supervisor level in full

daycare settings earn on average only slightly more than this, at £6.60 an hour. Early years staff in other comparable European countries are often significantly better paid (DfE, 2013).

## ECEC costs

ECEC costs to parents in the UK are amongst the highest in Europe. Childcare costs are rising at more than 6%, more than double the inflation rate (2.7%) and a nursery place now costs 77% more than it did in 2003, but earnings have stayed still. For a child under two, the average cost of a nursery is £4.26 per hour, and a childminder £3.93 per hour. Costs for over twos are only 2% cheaper. In London, costs are 25% more expensive (Daycare Trust, 2013). It is unclear whether absolute costs of child care are higher in the UK or whether it is the proportion of true costs that are met by parents, but it is clear that costs to parents are amongst the highest in Europe.

The government helps with costs partly through the entitlement to 15 hours of free early education for every child from age 3 (to be extended down to age 2 for the 40% most deprived from 2014). In England the government is presently spending about £2 billion on free early education with all three and four year old children receiving 15 free hours per week for 38 weeks of the year. This entitlement will be extended to the 40% most disadvantaged two year olds by 2014.

Another way the government helps is by two types of parent subsidies. Firstly, parents can be part-paid in childcare vouchers, reducing tax liability and saving £900 a year. Secondly parents can claim some childcare costs if earnings are below a threshold related to household size, and if all parents work at least 16 hours a week. This is the childcare element of Working Tax Credit. From April 2011, parents could claim up to 70% of the cost of childcare, up to a weekly maximum of £122.50 for one child and £210 for two or more children; awards adjusted for household income. Take-up is 81% of eligible families (HM Revenue and Customs, 2011), but the number of eligible families is small, because families do not work enough hours or they do not use registered childcare. In 2012 there were 946,000 families with a child under 5 receiving Working Tax Credit and 31% received the childcare element. (HM Revenue and Customs, 2012). While the Government's commitments to childcare are welcome, they must be seen against a backdrop of public spending cuts and stagnant wage growth. The amount of help that parents can claim from Working Tax Credit (and in future Universal Credit) to cover their childcare costs was reduced from a maximum of 80% to 70% in 2011. This resulted in an average loss of £10.47 per week, or £544 per year, which is significant for low income families.

The UK Government spends almost £5 billion a year on ECEC as follows:

- Funded early education. Cost = around £2 billion a year, rising to around £3 billion a year by 2015. All three and four year olds can receive 15 hours of early education and care for 38 weeks of the year. Around 260,000 two-year-olds from low-income families will also be eligible from September 2014.
- Tax credits and benefits disregards. Cost = £1.5 billion a year through tax credits and benefits disregards; plus an additional £200m a year under Universal Credit. Depending on their income, some working parents can claim up to 70% of the costs of childcare up to a maximum of £175 a week for one child and £300 a week for two or more children.
- Employer Supported Childcare. Cost = around £800 million a year. Parents can claim tax and National Insurance Contributions relief on the cost of childcare, using childcare

vouchers or workplace nurseries provided through their employers. Depending on their individual circumstances, they can benefit from up to £900 a year through this scheme.

As a share of GDP, the Government spends around 40% more than the OECD average on childcare. UK spending is lower than the Nordic nations, comparable with France and higher than Germany, (DfE, 2013).

## Policy conflicts

Some government departments are concerned with employment and want to keep childcare costs low to ensure more women can work. Keeping costs low compromises quality, which is of concern to the departments of health and education, who are more concerned with child outcomes rather than maximising employment. Also it might be important to keep entry barriers to childcare employment low, to help parents without qualifications could get jobs. Hence an anti-poverty strategy emphasises employment, while a child outcomes strategy emphasises quality of child experience and these need to be reconciled. Currently there is confusion about whether one of these is most important, and therefore where resources, much reduced nowadays, should be invested.

## Evidence of effectiveness

Two major studies comprise both the evidence for success and the significant influence of government funded research in policy design and implementation: The Effective Preschool and Primary Education Project (EPPE) (Sylva et al., 2010; Melhuish et al., 2008a) and the National Evaluation of Sure Start (NESS) (Melhuish, Belsky & Barnes, 2010).

The EPPE study, started in 1997, has been following 3,000 children since entering preschool at age three. In particular it has looked at the impact of different kinds of preschool provision, differing ages of starting preschool, and the impact of different hours of attendance over a week. It has also broken down the impact on children from a variety of backgrounds. Key findings from the EPPE study include:

- 2-3 years of high quality early years education can provide up to eight months of development advantage on literacy compared to children who enter school with no early years experience at age five;
- While high quality pre-school provides a boost, the greatest predictor of school success is the home learning environment. What parents do with their children before formal education, and indeed, their engagement with education, has the largest impact on likely positive outcomes;
- The quality of preschool is correlated with qualifications of the staff and quality can be directly correlated to better outcomes for children;
- Effective preschools have a high level of adult child verbal interaction, staff who understand and deliver the curriculum, understand how young children learn, and are skilled at resolving child conflicts, and help parents to support their child's learning at home.

The EPPE study is ongoing and will report on the impact of early years provision on attainment at age 16, so it will give important evidence of ongoing positive impacts on school success of early years provision.

The National Evaluation of Sure Start (NESS) study ([www.birkbeck/ness](http://www.birkbeck/ness)) looked particularly at the first 250 Sure Start programmes. In early reports (NESS, 2005) it was found Sure Start had positive impacts on a majority of the children, particularly children of non teen mothers. Children had greater social competence, fewer behaviour problems, and parents were using fewer negative parenting techniques. However, it was disappointing that children of teen parents were doing less well than their counterparts in non sure start areas. These children had less social competence, more behaviour problems, and poor child verbal ability. Sure Start seemed to be working for poor children, but not the very poorest of children. Ministers agreed that what was needed was a greater emphasis on reaching more children, and improving the offer to children and families. The offer to families was being modified in line with the research findings.

As a result of the early NESS evidence and also the EPPE results showing that integrated children's centres were a particularly effective form of early years provision, the Children's Minister decided that all Sure Start programmes were to become Children's Centres with a more clearly specified set of services and clearer integration of health, child care and education, and parent support services. This change became operative in 2006 and was to profoundly influence the future of Sure Start. Later evaluations showed real improvements (Melhuish et al., 2008b). There was no difference in subgroups, with all sections of the population showing improvements. These included: child positive social behaviour, greater child independence and self regulation, improvements in home learning environment, parent-child relationships, and less harsh parenting, and increased service use. Follow-ups when children were 5 years old continued to show improvements, but this time improvements were primarily for child health and parenting. The child health improvements were lower rates of overweight children among the Sure Start five year olds, and better general health. For parents there was less home chaos, better home learning environments, mothers reporting greater life satisfaction and a reduction in worklessness in the Sure Start families compared to the similar families without Sure Start (NESS, 2010).

While Sure Start was associated with more positive parenting when children were 3- and 5-years old, the positive effects on child behaviour at 3 years disappeared by 5 years. This may have been because from 2004 all 3- and 4-year old children had access to free part-time preschool education, and 97% took advantage of this. Hence almost all children would have had preschool education between 3 and 5. Evidence links high quality pre-school education with improved cognitive and social development (Melhuish & Barnes, 2012). Hence possibly developmental advantages associated with SSLPs at age 3 were not detected at age 5 because by this time almost all children were exposed to pre-school education, which may have resulted in "catch up" for non-SSLP children. Also in Sure Start areas children's language development was better where children received better quality preschool education (Melhuish et al., 2010).

When the children were 7 years of age, several significant benefits of Sure Start emerged for parenting (NESS, 2012)). For the whole population, mothers in Sure Start areas relative to their counterparts in non-Sure Start areas reported:

- engaging in less harsh discipline;
- providing a more stimulating home learning environment for their children.

*Additionally for sub-populations, mothers in Sure Start areas reported:*

- providing a less chaotic home environment for boys (not significant for girls);
- having better life satisfaction (lone parent and workless households only).

Additional evidence of beneficial Sure Start effects emerged for three of eight outcomes when looking at change between 3 and 7 years. Mothers in SSLP areas relative to those residing in comparison areas:

- showed a greater improvement in the home learning environment;
- reported a greater decrease in harsh discipline.

*Additionally for sub-populations, mothers in Sure Start areas reported:*

- greater improvement in life satisfaction (lone parent and workless households only).

The effects for lone parent and workless households are evidence that programmes were being successful in affecting ‘hard to reach’ groups, which earlier had been challenging. No consistent Sure Start effects for child development emerged at 7 years. There were no adverse effects associated with Sure Start programmes, and all the beneficial effects appeared to apply to families at all levels of disadvantage and for all areas regardless of level of deprivation.

In addition to the EPPE and NESS findings, overall in England there has been ongoing small improvements in assessments of all five year olds in school, and most importantly, a small but significant narrowing of the gap in results between the poorest children and their peers. (Eisenstadt & Melhuish, 2013). These changes were small, but they indicated that policies, including universal provision for three and four year olds and the multi-agency approach of Sure Start were beginning to show results at a whole population level, and that the poorest children were improving more than others.

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# 7. Country position paper on ECEC of the United States

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## Investing in Our Future: The Evidence Base on Preschool Education

Large-scale public preschool programs can have substantial impacts on children's early learning. Scientific evidence on the impacts of early childhood education has progressed well beyond exclusive reliance on the Perry Preschool and Abecedarian programs. A recent analysis integrating evaluations of 84 preschool programs concluded that, on average, children gain about a third of a year of additional learning across language, reading, and math skills. At-scale preschool systems in Tulsa and Boston have produced larger gains of between a half and a full year of additional learning in reading and math. Benefits to children's socio-emotional development and health have been documented in programs that focus intensively on these areas.

Quality preschool education is a profitable investment. Rigorous efforts to estimate whether the economic benefits of early childhood education outweigh the costs of providing these educational opportunities indicate that they are a wise financial investment. Available benefit-cost estimates based on older, intensive interventions, such as the Perry Preschool Program, as well as contemporary, large-scale public preschool programs, such as the Chicago Parent

<sup>14</sup> After the first two primary authors, the authors are listed alphabetically. The authors thank Deborah Phillips and the Foundation for Child Development for funding this work. The authors would also like to thank those who provided helpful reviews: J. Lawrence Aber, Mary Catherine Arbour, Karen Bierman, Maia Connors, Greg Duncan, Ruth Friedman, Eugene Garcia, Ron Haskins, Jacqueline Jones, Laura Justice, Nonie Lesaux, Joan Lombardi, Pamela Morris, Adele Robinson, Catherine Tamis-LeMonda, Elizabeth Votruba-Drzal, and Jane Waldfogel.

Child Centers and Tulsa's preschool program, range from three to seven dollars saved for every dollar spent.

The most important aspect of quality in preschool education is supportive and stimulating interactions between teachers and children. Children benefit most when teachers are emotionally supportive and engage in stimulating interactions that support learning. Interactions that help children acquire new knowledge and skills provide input to children, elicit verbal responses and reactions from them, and foster engagement in and enjoyment of learning. Recent evaluations tell us that effective use of curricula focused on such specific aspects of learning as language and literacy, math, or social and emotional development provide a substantial boost to children's learning. Guidelines about the number of children in a classroom, the ratio of teachers and children, and staff qualifications help to increase the likelihood of – but do not assure -- supportive and stimulating interactions. Importantly, in existing large-scale studies, only a minority of preschool programs are observed to provide excellent quality and levels of instructional support are especially low.

Supporting teachers in their implementation of instructional approaches through coaching or mentoring can yield important benefits for children. Coaching or mentoring that provides support to the teacher on how to implement content-rich and engaging curricula shows substantial promise in helping to assure that such instruction is being provided. Such coaching or mentoring involves modeling positive instructional approaches and providing feedback on the teacher's implementation in a way that sets goals but is also supportive. This can occur either directly in the classroom or through web-based exchange of video clips.

Quality preschool education can benefit middle-class children as well as disadvantaged children; typically developing children as well as children with special needs; and dual language learners as well as native speakers. Although early research focused only on programs for low-income children, more recent research focusing on universal preschool programs provides the opportunity to ask if preschool can benefit children from middle-income as well as low-income families. The evidence is clear that middle-class children can benefit substantially, and that benefits outweigh costs for children from middle income as well as those from low-income families. However, children from low-income backgrounds benefit more. Children with special needs who attended Tulsa's preschool program showed comparable improvements in reading and pre-writing skills as typically developing children. Further, at the end of first grade, children with special needs who had attended Head Start as 3-year olds showed stronger gains in math and social-emotional development than children with special needs who had not attended Head Start. Studies of both Head Start and public preschool programs suggest that dual language learners benefit as much as, and in some cases more than, their native speaker counterparts.

A second year of preschool shows additional benefits. The available studies, which focus on disadvantaged children, show further benefits from a second year of preschool. However, the gains are not always as large as from the first year of preschool. This may be because children who attend two years of preschool are not experiencing a sequential building of instruction from the first to the second year.

Long-term benefits occur despite convergence of test scores. As children from low-income families in preschool evaluation studies are followed into elementary school, differences between those who received preschool and those who did not on tests of academic achievement are reduced. However, evidence from long-term evaluations of both small-scale,

intensive interventions and Head Start suggest that there are long-term effects on important societal outcomes such as high-school graduation, years of education completed, earnings, and reduced crime and teen pregnancy, even after test-score effects decline to zero. Research is now underway focusing on why these long-term effects occur even when test scores converge.

There are important benefits of comprehensive services when these added services are carefully chosen and targeted. When early education provides comprehensive services, it is important that these extensions of the program aim at services and practices that show benefits to children and families. Early education programs that have focused in a targeted way on health outcomes (e.g., facilitating a regular medical home; integrating comprehensive screening; requiring immunizations) have shown such benefits as an increase in receipt of primary medical care and dental care. In addition, a parenting focus can augment the effects of preschool on children's skill development, but only if it provides parents with modeling of positive interactions or opportunities for practice with feedback. Simply providing information through classes or workshops is not associated with further improvements in children's skills.

For the first time in a generation, national legislation on publicly-funded preschool education is the focus of prominent debate. At present, 42% of 4-year-olds attend publicly funded preschool (28% attend public prekindergarten programs, 11% Head Start, and 3% special education preschool programs).<sup>16</sup> A considerable and healthy debate about the merits of preschool education is in process. However, in some of these discussions, the most recent evidence has not yet been included for consideration. The goal of this brief is to provide a non-partisan and thorough review of the current science and evidence base on early childhood education (ECE) that includes the most recent research. Our interdisciplinary group of early childhood experts reviewed rigorous evidence on why early skills matter, the short- and long-term effects of preschool programs on children's school readiness and life outcomes, the importance of program quality, which children benefit from preschool (including evidence on children from different family income backgrounds), and the costs versus benefits of preschool education. We focus on preschool (early childhood education) for four-year-olds, with some review of the evidence for three-year-olds when relevant. We do not discuss evidence regarding programs for 0–3-year olds.

### **Early skills matter, and preschool can help children build these skills.**

The foundations of brain architecture, and subsequent lifelong developmental potential, are laid down in the early years in a process that is exquisitely sensitive to external influence. Early experiences in the home, in other care settings, and in communities interact with genes to shape the developing nature and quality of the brain's architecture. The growth and then environmentally-based pruning of neuronal systems in the first years support a range of early skills, including cognitive (early language, literacy, math), social (theory of mind, empathy, prosocial), persistence, attention, and self-regulation and executive function skills (the voluntary control of attention and behavior).<sup>17</sup> Later skills – in schooling and employment – build cumulatively upon these early skills. Therefore investment in early learning and

<sup>16</sup> Among the nation's 3-year olds, 4% attend public prekindergarten, 8% attend Head Start, and 3% attend special education preschool programs; National Institute on Early Education Research (2012). *The state of preschool 2012*. New Brunswick, NJ: Author.

<sup>17</sup> Harvard Center on the Developing Child (2007). *The science of early childhood development: Closing the gap between what we know and what we do*. Cambridge, MA: Author.

development results in greater cost savings than investment later in the life cycle.<sup>18</sup> The evidence reviewed below addresses the role of preschool in helping children build these skills.

**Rigorous evidence suggests positive short-term impacts of preschool programs on childrens academic school readiness and mixed impacts on childrens socio-emotional readiness.**

**Effects on language, literacy, and mathematics**

Robust evidence suggests that a year or two of center-based ECE for three- and four-year-olds, provided in a developmentally appropriate program, will improve children's early language, literacy, and mathematics skills when measured at the end of the program or soon after.<sup>19</sup> These findings have been replicated across dozens of rigorous studies of early education programs, including small demonstration programs and evaluations of large public programs such as Head Start and some state pre-K programs. Combining across cognitive (e.g., IQ), language (e.g., expressive and receptive vocabulary) and achievement (e.g., early reading and mathematics skills) outcomes, a recent meta-analysis including evaluations of 84 diverse early education programs for young children evaluated between 1965 and 2007 estimated the average post-program impact to be about .35 standard deviations.<sup>20</sup> This represents about a third of a year of additional learning, above and beyond what would have occurred without access to preschool. These data include both the well-known small demonstration programs such as Perry Preschool, which produced quite large effects, as well as evaluations of large preschool programs like Head Start, which are characterized both by lower cost but also more modest effects. Two recent evaluations of at-scale urban programs, in Tulsa and Boston, showed large effects (between a half of a year to a full year of additional learning) on language, literacy and math.<sup>21</sup>

<sup>18</sup> Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child Development*, 78, 647-663; Caspi, A., Moffitt, T. E., Newman, D. L., & Silva, P. A. (1996). Behavioral observations at age 3 years predict adult psychiatric disorders: Longitudinal evidence from a birth cohort. *Archives of General Psychiatry*, 53, 1033-1039; Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., & Japel, C. (2007). School readiness and later achievement. *Developmental Psychology*, 43, 1428-1446; Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, 312, 1900-1902; Harvard Center on the Developing Child. (2011). *The foundations of lifelong health are built in early childhood*. Cambridge, MA: Author. Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the childhood roots of health disparities. *JAMA*, 301, 2252-2259.

<sup>19</sup> Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *The Teachers College Record*, 112, 579-620. Wong, V. C., Cook, T. D., Barnett, W. S., & Jung, K. (2008). An effectiveness-based evaluation of five state prekindergarten programs. *Journal of Policy Analysis and Management*, 27, 122-154.

<sup>20</sup> Advisory Committee on Head Start Research and Evaluation (2012). *Advisory committee on Head Start research and evaluation: Final report*. Washington, DC: Administration for Children and Families; Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian project. *Applied Developmental Science*, 6, 42-57; Duncan, G. J., & Magnuson, K. (2013). Investing in preschool programs. *Journal of Economic Perspectives*, 27, 109-132; Leak, J., Duncan, G. J., Li, W., Magnuson, K., Schindler, H., & Yoshikawa, H. (2010, March). Is timing everything? How early childhood education program impacts vary by starting age, program duration and time since the end of the program. Paper presented at the Biennial Meeting for the Society for Research on Child Development, Montreal, Quebec, Canada; Puma, M., Bell, S., Cook, R., Heid, C., & Lopez, M. (2005). *Head Start impact study: First year findings*. Washington, D.C.: U.S. Department of Health and Human Services, Administration for Children and Families; Reynolds, A.J. (2000). *Success in early intervention: The Chicago child-parent centers*. Lincoln, Nebraska: University of Nebraska Press; Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The HighScope Perry Preschool study through age 40*. Ypsilanti, MI: HighScope Press.

<sup>21</sup> Gormley, W., Gayer, T., Phillips, D.A., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41, 872-884; Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*.

## Effects on socio-emotional development

The effects of preschool on socio-emotional development<sup>22</sup> are not as clear-cut as those on cognitive and achievement outcomes. Far fewer evaluation studies of general preschool (that is, preschool without a specific behavior-focused component) have included measures of these outcomes. And relative to measures of achievement, language and cognition, socio-emotional measures are also more varied in the content they cover and quality of measurement.

A few programs have demonstrated positive effects on children's socioemotional development. Perry Preschool was found to have reduced children's externalizing behavior problems (such as acting out or aggression) in elementary school.<sup>23</sup> More recently, the National Head Start Impact Study found no effects in the socioemotional area for four-year-old children, although problem behavior, specifically hyperactivity, was reduced after one year of Head Start among three-year-olds.<sup>24</sup> An evaluation of the Tulsa prekindergarten program found that prekindergarten attendees had lower levels of timidity and higher levels of attentiveness, suggesting greater engagement in the classroom, than was the case for other students who neither attended prekindergarten nor Head Start. However, there were no differences among prekindergarten and other children in their aggressive or hyperactive behavior.<sup>25</sup> A recent explanation for the divergence of findings is suggested by meta-analytic work on aggression, which found that modest improvements in children's aggressive behavior occurred among programs that made improving children's behavior an explicit goal.<sup>26</sup>

## Effects on health

The effects of preschool on children's health have been rigorously investigated only within the Head Start program; Head Start directly targets children's health outcomes, while many preschool programs do not. Head Start has been shown to increase child immunization rates. In addition, there is evidence that Head Start in its early years of implementation reduced child mortality, and in particular mortality from causes that could be attributed plausibly to aspects of Head Start's health services, particularly immunization and health screening (e.g. measles, diabetes, whooping cough, respiratory problems).<sup>27</sup> More recently, the national Head Start Impact Study found somewhat mixed impacts on children's health outcomes between the end of the program and the end of first grade.<sup>28</sup> Head Start had small positive impacts on some health indicators, such as receipt of dental care, whether the child had health insurance, and parents' reports of whether their child had good health, at some post-program time points but not at others. Head Start had no impact at the end of first grade on whether the child had received care for an injury within the last month or whether the child needed ongoing care. The positive impacts of Head Start on immunization, dental care and some

<sup>22</sup> For example, positive behaviors showing empathy, cooperation, or prosocial orientations, or problem behaviors such as antisocial, aggressive, hyperactive, impulsive, withdrawn, depressed, or anxious behaviors.

<sup>23</sup> Heckman, J., Pinto, R., & Savelyev, P. A. (2012). Understanding the mechanisms through which an influential early childhood program boosted adult outcomes (NBER Working Paper No. 18581). Cambridge, MA: National Bureau of Economic Research.

<sup>24</sup> Puma, M., Bell, S., Cook, R., Heid, C., & Lopez, M. (2005). Head Start impact study: First year findings. Washington, D.C.: U.S. Department of Health and Human Services, Administration for Children and Families.

<sup>25</sup> Gormley, W. T., Phillips, D. A., Newmark, K., Welti, K., & Adelstein, S. (2011). Social-emotional effects of early childhood education programs in Tulsa. *Child Development*, 82, 2095-2109.

<sup>26</sup> Schindler, H.S., Kholoptseva, J., Oh, S.S., Yoshikawa, H., Duncan, G.J., & Magnuson, K.A. (2013). Preventing aggression and antisocial behaviors through preschool interventions: A meta-analytic study. Manuscript in preparation.

<sup>27</sup> Currie, J., & Thomas, D. (1995). Does Head Start make a difference? *The American Economic Review*, 85, 341-364; Ludwig, J., & Miller, D. L. (2007). Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *Quarterly Journal of Economics*, 122, 159-208.

<sup>28</sup> U.S. Department of Health and Human Services. (2010). Head Start impact study: Final report. Washington, DC: Administration for Children and Families, Office of Planning, Research and Evaluation.

other indicators may be due to features of its health component – the program includes preventive dental care, comprehensive screening of children, tracking of well-child visits and required immunizations, and assistance if needed with accessing a regular medical home. In contrast to the literature on Head Start and health outcomes, there are almost no studies of the effects of public prekindergarten on children's health.

## Years of preschool education

There are few studies that have examined the relative impact of one vs. two years of preschool education, and none that randomly assigned this condition. All of the relevant studies focus on disadvantaged children. The existing evidence suggests that more years of preschool seem to be related to larger gains, but the added impact of an additional year is often smaller than the gains typically experienced by a four-year-old from one year of participation.<sup>29</sup> Why the additional year generally results in smaller gains is unclear. It may be that children who attend multiple years experience the same curriculum across the two years rather than experiencing sequenced two-year curricula, as programs may mix three-year-old and four-year-olds in the same classroom.

### Children show larger gains in higher-quality preschool programs.

Higher-quality preschool programs have larger impacts on children's development while children are enrolled in the program and are more likely to create gains that are sustained after the child leaves preschool. Process quality features -- children's immediate experience of positive and stimulating interactions -- are the most important contributors to children's gains in language, literacy, mathematics and social skills. Structural features of quality (those features of quality that can be changed by structuring the setting differently or putting different requirements for staff in place, like group size, ratio, and teacher qualifications) help to create the conditions for positive process quality, but do not ensure that it will occur.

For example, smaller group sizes and better ratios of staff to children provide the right kind of setting for children to experience more positive interactions. But this context itself is not enough. Teacher qualifications such as higher educational attainment and background, certification in early childhood, or higher than average compensation for the field are features of many early education programs that have had strong effects. Yet here too, research indicates that qualifications alone do not ensure greater gains for children during the course of the

<sup>29</sup> Arteaga, I.A., Humpage, S., Reynolds, A.J., & Temple, J.A. (in press). One year of preschool or two? Is it important for adult outcomes? Results from the Chicago Longitudinal Study of the Chicago Parent-Child Centers. *Economics of Education Review*; Magnuson, K., Meyers, M., Ruhm, C., & Waldfogel, J. (2004). Inequality in preschool education and school readiness. *American Educational Research Journal*, 41, 115-157; Phillips, D., & Adams, G. (2001). Child care and our youngest children. *The Future of Children*, 11, 35-51; Reynolds, A. J. (1995). One year of preschool intervention or two: Does it matter?. *Early Childhood Research Quarterly*, 10, 1-31; Sammons, P., Sylva, K., Melhuish, E., Taggart, B., Elliot, K., & Siraj-Blatchford, I. (2002). *The effective provision of pre-school education (EPPE) project: Measuring the impact of pre-school on children's cognitive progress over the pre-school period (Vol. 8)*. London, England: Institute of Education, University of London/Department for Education and Skill; Tarullo, L., Xue, Y., & Burchinal, M. (2013, April). Are two years better than one? Examining dosage of Head Start attendees using propensity score matching methodology. In A. Madigan (Chair), *Does program dosage predict outcomes in Head Start and Early Head Start*. Symposium presented at the Biennial Meeting of the Society for Research in Child Development, Seattle, WA.

preschool years.<sup>30</sup> To promote stronger outcomes, preschool programs should be characterized by both structural features of quality and ongoing supports to teachers to assure that the immediate experiences of children, those provided through activities and interactions, are rich in content and stimulation, while also being emotionally supportive.

The aspects of process quality that appear to be most important to children's gains during the preschool years include teachers providing frequent, warm and responsive interactions.<sup>31</sup> In addition, teachers who encourage children to speak, with interactions involving multiple turns by both the teacher and child to discuss and elaborate on a given topic, foster greater gains during the preschool year, across multiple domains of children's learning.<sup>32</sup> Both the warm and responsive interaction style and elaborated conversations also predict the persistence of gains into the school years.<sup>33</sup> Some evidence suggests that children who have more opportunities to engage in age-appropriate activities with a range of varied materials such as books, blocks, and sand show larger gains during the preschool years (and those gains are maintained into the school years).<sup>34</sup>

### Quality in preschool classrooms is in need of improvement, with instructional support levels particularly low.

Both longstanding and more recent research reveal that the average overall quality of preschool programs is squarely in the middle range of established measures. In large-scale studies of public prekindergarten, for example, only a minority of programs are observed to provide excellent quality; a comparable minority of programs are observed to provide poor quality.<sup>35</sup> It is therefore not surprising that impacts of most of the rigorously evaluated public

<sup>30</sup> Burchinal, M., Howes, C., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*, 140-153.; Burchinal, M., Vandergrift, N., Pianta, R., & Mashburn, A. (2010). Threshold analysis of association between child care quality and child outcomes for low-income children in pre-kindergarten programs. *Early Childhood Research Quarterly, 25*, 166-176; Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., & Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*, 558-580. Zaslow, M., Anderson, R., Redd, Z., Wessel, J., Tarullo, L. & Burchinal, M. (2010). *Quality dosage, thresholds, and features in early childhood settings: A review of the literature*. OPRE 2011-5. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

<sup>31</sup> Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.; Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749.

<sup>32</sup> Harvard Center on the Developing Child (2007). *A science-based framework for early childhood policy*. Cambridge, MA: Author; Justice, L., Mashburn, A. J., Pence, K., & Wiggins, A. (2008). Experimental evaluation of a preschool language curriculum: Effects on classroom quality and children's expressive language skills. *Journal of Speech, Language, and Hearing Research, 51*, 1-19; Wasik, B. A., Bond, M. A., & Hindman, A. H. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology, 98*, 63-74.

<sup>33</sup> Burchinal, M. R., Howes, C., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Predicting child outcomes at the end of kindergarten from the quality of pre-kindergarten teacher-child interactions and instruction. *Applied Developmental Science, 12*, 140-153; Dickinson, D.K., & Porche, M. (2011). Relationship between language experiences in preschool classrooms and children's kindergarten and fourth grade language and reading abilities. *Child Development, 82*, 3, 870-886.; Vandell, D. L., Belsky, J., Burchinal, M., Steinberg, L., Vandergrift, N., & NICHD Early Child Care Research Network. (2010). Do effects of early child care extend to age 15 years? *Child Development, 81*, 737-756.

<sup>34</sup> child-care experiences and concurrent development: The cost, quality, and outcomes study. *Merrill-Palmer Quarterly, 43*, 451-477; Peisner-Feinberg, E. S., Burchinal, M. R., Clifford, R. M., Culklin, M. L., Howes, C., Kagan, S. L., & Yazejian, N. (2001). The relation of preschool child-care quality to children's cognitive and social development trajectories through second grade. *Child Development, 72*, 1534-1553; Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2012). Preschool quality and educational outcomes at age 11: Low quality has little benefit. *Journal of Early Childhood Research, 9*, 109-124 ; Votruba-Drzal, E., & Chase-Lansdale, P.L. (2004). Child care and low-income children's development: Direct and moderated effects. *Child Development, 75*, 296-312.

<sup>35</sup> Mashburn, A. J., Pianta, R. C., Hamre, B. K., Downer, J. T., Barbarin, O. A., Bryant, D., & Howes, C. (2008). Measures of classroom quality in prekindergarten and children's development of academic, language, and social skills. *Child Development, 79*, 732-749. Moiduddin, E., Aikens, N., Tarullo, L., West, J., & Xue, Y. (2012). *Child outcomes and classroom quality in FACES 2009*. OPRE Report 2012-37a. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. For example, a study of 692 pre-k classrooms in these 11 states using the Classroom Assessment Scoring System (CLASS) observation of classroom quality found the largest proportion of classrooms (31.4%) to show a profile involving positive emotional climate but only mediocre instructional support. While nearly the same proportion of the classrooms combined strong social, emotional, and instructional support to children, 18.5% of the classrooms had a profile involving mediocre emotional climate and low instructional support, and 18.8% were observed to have poor quality overall, lacking in both social and emotional support and instructional quality.

prekindergarten programs fall shy of those in Tulsa and Boston (showing gains in the small to moderate range for reading and math, that is, a few months of added learning, rather than the half-year to full-year of additional learning that was found in Tulsa and Boston).<sup>36</sup> Head Start programs also show considerable variation in quality. While few programs are rated as having “poor” quality, research suggests that as in studies of many public prekindergarten programs, Head Start programs on average show instructional quality levels well below the midpoint of established measures.<sup>37</sup> In sum, there is variation in quality in both Head Start and prekindergarten nationally, with no clear pattern of one being stronger in quality than the other in the existing research. It is important to note here that funding streams are increasingly mixed on the ground, with prekindergarten programs using Head Start performance standards or programs having fully blended funds; thus, these two systems are no longer mutually exclusive in many locales.

High-quality programs implemented at scale are possible, according to recent research. Evaluation evidence on the Tulsa and Boston prekindergarten programs shows that high-quality public pre-k programs can be implemented across entire diverse cities and produce substantial positive effects on multiple domains of children’s development. Assuring high quality in these public programs implemented at scale has entailed a combination of program standards, attention to teacher qualifications and compensation, additional ongoing on-site quality supports such as the ones described previously, and quality monitoring.

### **A promising route to quality: Developmentally focused, intensive curricula with integrated, in-classroom professional development.**

Curricula can play a crucial role in ensuring that children have the opportunity to acquire school readiness skills during the preschool years. Preschool curricula vary widely. Some, typically labeled “global” curricula, tend to have a wide scope, providing activities that are thought to promote socio-emotional, language, literacy, and mathematics skills and knowledge about science, arts, and social studies. Other curricula, which we label “developmentally focused”, aim to provide intensive exposure to a given content area based on the assumption that skills can be better fostered with a more focused scope.<sup>38</sup>

<sup>36</sup> Specifically, moderate to large impacts on language, literacy, and math outcomes, ranging from several months to an entire year of additional learning, relative to comparison groups, in Gormley, W., Gayer, T., & Phillips, D.A. (2008). Preschool programs can boost school readiness. *Science*, 320, 1723-24; Gormley, W., Gayer, T., Phillips, D. A., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41, 872-884; Phillips, D., Gormley, W.T., & Lowenstein, A. (2009). Inside the pre-kindergarten door: Classroom climate and instructional time allocation in Tulsa’s pre-K programs. *Early Childhood Research Quarterly*, 24, 213-228.; Weiland, C., Ulvestad, K., Sachs, J., & Yoshikawa, H. (2013). Associations between classroom quality and children’s vocabulary and executive function skills in an urban public prekindergarten program. *Early Childhood Research Quarterly*, 28, 199-209. Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children’s mathematics, language, literacy, executive function, and emotional skills. Child Development. Small to moderate impacts in Lipsey, M. W., Hofer, K. G., Dong, N., Farran, D. C., & Bilbrey, C. (2013). *Evaluation of the Tennessee voluntary prekindergarten program: End of pre-k results from the randomized control design (Research Report)*. Nashville, TN: Vanderbilt University, Peabody Research Institute; Wong, V. C., Cook, T. D., Barnett, W. S., & Jung, K. (2008). An effectiveness-based evaluation of five state prekindergarten programs. *Journal of Policy Analysis and Management*, 27, 122-154.

<sup>37</sup> Moiduddin, E., Aikens, N., Tarullo, L., West, J., & Xue, Y. (2012). *Child outcomes and classroom quality in FACES 2009*. OPRE Report 2012-37a. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services. Total scores using the Early Childhood Environment Rating Scale in large samples of pre-k and Head Start show slightly higher scores for Head Start than pre-k classrooms. For example, when the Early Childhood Environment Rating Scale-Revised was used in a sample representative of public pre-k classrooms in four states and of specific regions of two additional very large states, the average total score was 3.86. The average score on the same measure used in a representative sample of Head Start classrooms in 1997 was slightly higher. More recent data for a representative sample of Head Start programs, though using an abbreviated version of this observational measure, showed an average score of 4.3. At the same time, however, observations using the CLASS in the 2009 observations of a representative sample of Head Start programs clearly show that levels of instructional quality were low, as in many studies of public pre-kindergarten classrooms.

<sup>38</sup> Clements, D. H. (2007). Curriculum research: Toward a framework for ‘research-based curricula’. *Journal for Research in Mathematics Education*, 38, 35-70.



Global curricula have not often been evaluated rigorously. However, the evidence that exists from evaluations by independent evaluators suggests no or small gains associated with their use, when compared with curricula developed by individual teachers or to other commercially available or researcher-developed curricula.<sup>39</sup> A revised version of such a curriculum is currently being evaluated via a randomized trial.<sup>40</sup>

As for developmentally focused curricula, several recent experimental evaluations have demonstrated moderate to large gains in the targeted domains of children's development, for math curricula,<sup>41</sup> language and literacy curricula,<sup>42</sup> and curricula directed at improving socio-emotional skills and self-regulation, compared to usual practice in preschool classrooms,<sup>43</sup> which typically involve more global curricula. In these studies, for the group receiving the developmentally focused curriculum, it is generally added to a global curriculum that is already in place.

Most of the successful curricula in these recent evaluations are characterized by intensive professional development that often involves coaching at least twice a month, in which an expert teacher provides feedback and support for in-classroom practice, either in person or in some cases through observation of videos of classroom teaching. Some curricula also incorporate assessments of child progress that are used to inform and individualize instruction, carried out at multiple points during the preschool year. These assessments allow the teacher to monitor the progress of each child in the classroom and modify her content and approach accordingly.

This recent set of studies suggests that intensive, developmentally focused curricula with integrated professional development and monitoring of children's progress offer the strongest hope for improving classroom quality as well as child outcomes during the preschool years. However, more evidence is needed about the effectiveness of such curricula, particularly

<sup>39</sup> Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., ... Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 179*, 1802–1817; Clements, D. H., & Sarama, J. (2007b). Effects of a preschool mathematics curriculum: Summative research on the Building Blocks project. *Journal for Research in Mathematics Education, 38*, 136–163; Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness (NCER 2008-2009)*. Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Washington, DC: U.S. Government Printing Office.

<sup>40</sup> Teaching Strategies. (2012). *The Creative Curriculum system for preschool pilot study: Initial baseline report*. Retrieved August 9, 2013 from <http://www.teachingstrategies.com/content/pageDocs/System-Pilot-Study-Baseline-Report-Layman-4-2012.pdf>.

<sup>41</sup> D. H., & Sarama, J. (2008). Enhancing young children's mathematical knowledge through a pre-kindergarten mathematics intervention. *Early Childhood Research Quarterly, 19*, 99–120. Clements, D. H., & Sarama, J. (2008). Experimental evaluation of the effects of a research-based preschool mathematics curriculum. *American Educational Research Journal, 45*, 443–494.

<sup>42</sup> Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 179*, 1802–1817; Fantuzzo, J. W., Gadsden, V. L., & McDermott, P. A. (2011). An integrated curriculum to improve mathematics, language, and literacy for Head Start children. *American Educational Research Journal, 48*, 763–793; Farver, J. M., Lonigan, C. J., & Eppe, S. (2009). Effective early literacy skill development for young Spanish-speaking English language learners: An experimental study of two methods. *Child Development, 80*, 703–719; Landry, S.H., Anthony, J.L., Swank, P.R., & Monseque-Bailey, P. (2009). Effectiveness of comprehensive professional development for teachers of at-risk preschoolers. *Journal of Educational Psychology, 101*, 448–465; Lonigan, C. J., Farver, J. M., Phillips, B. M., & Clancy-Menchetti, J. (2011). Promoting the development of preschool children's emergent literacy skills: A randomized evaluation of a literacy-focused curriculum and two professional development models. *Reading and Writing, 24*, 305–337; Neuman, S. B., & Cunningham, L. (2009). The impact of professional development and coaching on early language and literacy practices. *American Educational Research Journal, 46*, 532–566; Powell, D. R., Diamond, K. E., Burchinal, M. R., & Koehler, M. J. (2010). Effects of an early literacy professional development intervention on Head Start teachers and children. *Journal of Educational Psychology, 102*, 299–312; Preschool Curriculum Evaluation Research Consortium (2008). *Effects of Preschool Curriculum Programs on School Readiness (NCER 2008-2009)*. Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Washington, DC: U.S. Government Printing Office; Wasik, B. A., Bond, M. A., & Hindman, A. H. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology, 98*, 63–74; Whitehurst, G. J., Zevenbergen, A. A., Crone, D. A., Schultz, M. D., Veltling, O. N., & Fischel, J. E. (1999). Outcomes of an emergent literacy intervention from Head Start through second grade. *Journal of Educational Psychology, 91*, 261–272.

<sup>43</sup> Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., ... Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 179*, 1802–1817; Raver, C. C., Jones, S. M., Li-Grining, C. P., Zhai, F., Metzger, M., & Solomon, B. (2009). Targeting children's behavior problems in preschool classrooms: A cluster-randomized controlled trial. *Journal of Consulting and Clinical Psychology, 77*, 302–316; Riggs, N. R., Greenberg, M. T., Kusché, C. A., & Pentz, M. A. (2006). The mediational role of neurocognition in the behavioral outcomes of a social-emotional prevention program in elementary school students: Effects of the PATHS curriculum. *Prevention Science, 7*, 91–102.

studies of curricula implemented without extensive support of the developer, or beyond initial demonstrations of efficacy.<sup>44</sup> That is, the majority of rigorously conducted trials of developmentally focused curricula have included extensive involvement of the developer(s) and have occurred on a relatively small scale. There have been only a few trials of curricula in “real world” conditions – meaning without extensive developer(s)’ involvement and across a large program. Some notable recent results in “real world” conditions show promise that substantial effects can be achieved,<sup>45</sup> but more such studies are needed given the widely noted difficulties in taking interventions to scale.<sup>46</sup>

A recent development in early childhood curricula is the implementation of integrated curricula across child developmental domains (for example, socio-emotional and language; math and language), which retain the feature of defined scope for each area. In two recent successful instances, efforts were made to ensure feasible, integrated implementation; importantly, supporting coaches and mentor teachers were trained across the targeted domains and curricula.<sup>47</sup>

In addition to in-classroom professional development supports, the pre-service training and education of teachers is of critical concern in the field of preschool education. However, here evaluation research is still scant. There are a range of recent innovations – for example, increasing integration of practica and in-classroom experiences in higher education teacher preparation courses; hybrid web-based and in-person training approaches; and attention to overlooked areas of early childhood teacher preparation such as work with children with disabilities, work with children learning two languages, or teaching of early math skills. However, these innovations have yet to be fully evaluated for their impact on teacher capacities or preschool program quality.<sup>48</sup>

**Over the course of elementary school, scores for children who have and have not had preschool typically converge. Despite this convergence, there is some evidence of effects on outcomes in early adulthood.**

As children in preschool evaluation studies are followed into elementary school, the differences between those who received preschool and those who did not are typically reduced, based on the available primary-school outcomes of evaluations (chiefly test scores of reading and math achievement). This phenomenon of reduced effect sizes on test scores

<sup>44</sup> Advisory Committee on Head Start Research and Evaluation (2012). *Advisory Committee on Head Start Research and Evaluation: Final Report*. Washington, DC: Administration for Children and Families; Lonigan, C. J., Farver, J. M., Phillips, B. M., & Clancy-Menchetti, J. (2011). Promoting the development of preschool children’s emergent literacy skills: A randomized evaluation of a literacy-focused curriculum and two professional development models. *Reading and Writing, 24*, 305-337.

<sup>45</sup> Clements, D. H., Sarama, J., Farran, D. C., Lipsey, M. W., Hofer, K. G., & Bilbrey, C. (2011, March). An examination of the Building Blocks math curriculum: Results of a longitudinal scale-up study. In K. G. Hofer (Chair), *The Effects of Pre-kindergarten and Pre-kindergarten Curricula on Emergent Math and Literacy Skills*. Symposium conducted at the Annual Conference of the Society for Research on Educational Effectiveness, Washington, D.C.; Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children’s mathematics, language, literacy, executive function, and emotional skills. *Child Development*.

<sup>46</sup> Durlak, J. A., & Dupre, E. P. (2008). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting the implementation. *American Journal of Community Psychology, 41*, 327-350; Granger, R. C. (2010). *Improving practice at scale. William T. Grant Foundation 2009 Annual Report*. New York: William T. Grant Foundation.

<sup>47</sup> E.g., language and socio-emotional development in Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 79*, 1802-1817; language and math in Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children’s mathematics, language, literacy, executive function, and emotional skills. *Child Development*. In addition, widely used curricula that have in the past taken more of a global approach are now developing more sequenced and intensive versions (e.g., the Creative Curriculum). These have yet to be assessed in rigorous impact evaluations.

<sup>48</sup> Horn, D. M., Hyson, M., & Winton, P. J. (2013). Research on early childhood teacher education: Evidence from three domains and recommendations for moving forward. *Journal of Early Childhood Teacher Education, 34*, 95-112; Whitebook, M., Austin, L. J., Ryan, S., Kipnis, F., Almaraz, M., & Sakai, L. (2012). *By default or by design? Variations in higher education programs for early care and education teachers and their implications for research methodology*. Berkeley, CA: Center for the Study of Child Care Employment.

over time is often labeled “fadeout.”<sup>49</sup> We use the term convergence, as this term more accurately captures how outcomes like test scores of children who participated vs. did not participate in preschool converge over time as the non-attenders catch-up. There is not yet a strong evidence base on reasons for the convergence of test scores in follow-up evaluations of children after early childhood. A number of factors may be involved – for example, low quality of primary schooling, particularly for students in disadvantaged areas, may fail to build on the gains created by early childhood education.<sup>50</sup> Having students who attended and benefited from preschool may also permit elementary-school teachers to focus more on the non-attenders, and this extra attention may explain the convergence or catch-up pattern.

## Persistence of effects in landmark, small demonstration programs

A handful of small-scale demonstration programs show that while the language, literacy, and mathematics test scores of children participating versus not participating in preschool programs tend to converge as children progress through their K-12 schooling careers, the programs nonetheless appear to produce effects on a wide range of behavioral, health, and educational outcomes that persist into adulthood. The existing evidence pertains to low-income populations. The two most well known randomized experimental tests of preschool interventions with long-term outcome data – Perry Preschool and Abecedarian – provided striking evidence of this. Both programs produced large initial impacts on achievement test scores, but the size of these impacts fell in magnitude as children aged. Nonetheless, there were very large program effects on schooling attainment and earnings during adulthood.<sup>51</sup> The programs also produced striking results for criminal behavior; fully 60-70% of the dollar-value of the benefits to society generated by Perry Preschool come from impacts in reducing criminal behavior.<sup>52</sup> In Abecedarian, the treatment group’s rate of felony convictions or incarceration by age 21 is fully one-third below that of the control group.<sup>53</sup> There were other important effects as well, with reductions in teen pregnancy in both studies for treatment group members and reductions in tobacco use for treatment group members in Abecedarian.

## Persistence of effects in programs at scale

Patterns of converging test scores but emerging impacts in adulthood are present in some other noteworthy preschool programs as well. These also focus on disadvantaged populations. For example, in studies of Head Start, there appear to be long-term gains in educational, behavioral and health outcomes even after test score impacts decline to zero.

<sup>49</sup> A recent meta-analysis of ECE programs over the last five decades showed that the rate of declines in effect size for cognitive and achievement outcomes averaged .03 effect size a year after end of program. This means that the average post-test effect size on these outcomes of .35 would be reduced to .10 after roughly 8 years. If a program results in a larger gain than .35, then this analysis suggests that the continuing gains are larger as well. Leak, J., Duncan, G. J., Li, W., Magnuson, K., Schindler, H., & Yoshikawa, H. (2010, March). Is timing everything? How early childhood education program impacts vary by starting age, program duration and time since the end of the program. Paper presented at the Biennial Meeting for the Society for Research on Child Development, Montreal, Quebec, Canada.

<sup>50</sup> Magnuson, K., Ruhm, C., & Waldfogel, J. (2007). The persistence of preschool effects: Do subsequent classroom experiences matter? *Early Childhood Research Quarterly*, 22, 18-38. Zhai, F., Raver, C.C., & Jones, S.M. (2012). Quality of subsequent schools and impacts of early interventions: Evidence from a randomized controlled trial in Head Start settings. *Children and Youth Services Review*, 34, 946-954. Another possibility is that in aiming for third grade test scores, early elementary school teachers may be focusing especially strongly on those children who do not have strong initial skills. Research to clarify and distinguish among multiple possibilities will make a valuable contribution.

<sup>51</sup> Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian project. *Applied Developmental Science*, 6, 42-57; Heckman, J. J., Moon, S. H., Pinto, R., Saveljev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94, 114-128; Schweinhart, L. J., Barnett, W.S., & Bellfield, C.R. (2005). *Lifetime effects: The HighScope Perry Preschool Study through age 40*. Ypsilanti, MI: High/Scope Press.

<sup>52</sup> Bellfield, C.R., Nores, M., Barnett, W.S., & Schweinhart, L.J. (2006). The High/Scope Perry Preschool Program: Cost-benefit analysis using data from the age-40 followup. *Journal of Human Resources*, 41, 162-190.

<sup>53</sup> Campbell, F. A., Ramey, C. T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian project. *Applied Developmental Science*, 6, 42-57.

Specifically, a number of quasi-experimental studies of Head Start children who participated in the program in the 1960's, 1970's and 1980's find test score effects that are no longer statistically significant within a few years after the children leave the program. But even though Head Start participants have test scores that look similar to other children by early to mid elementary school, these studies show that Head Start children wind up completing more years of schooling, earning more, being healthier, and (in at least some studies) may be less likely to engage in criminal behavior.<sup>54</sup> Two studies have examined the medium-term persistence of gains of publicly-funded state prekindergarten programs. One of these has followed children through third grade and found persistence of mathematics gains, but not reading gains, through third grade for boys.<sup>55</sup> The second study has followed children through first grade and has found convergence of participating and non-participating children's cognitive skills and mixed impacts on children's behavioral outcomes.<sup>56</sup>

### Future Directions in Sustaining Short-Term Gains from Preschool

Despite several promising studies of long-term gains, we caution that the vast majority of preschool program evaluations have not included long-term follow-up. Strategies for sustaining short-term gains for children require more exploration and evaluation. One path to sustaining short-term gains may be to maximize the short-term impact by ensuring that quality of preschool is high, according to the approaches described previously. Another is to work towards greater continuity in learning goals and approaches across the preschool and early elementary years and ensuring instructional quality and support for health and socio-emotional learning in kindergarten and the early elementary grades. And finally, efforts to bolster three major influences that parents have on children's development – their psychological well-being; their parenting behaviors; and their economic security – have been a focus in Head Start but not in other preschool programs. Intensifying and further specifying these components may increase the impact of preschool. Recent advances in successful parenting interventions, which provide great specificity and intensive focus on the dimension of parenting targeted (e.g., specific behavior management approaches or contingent responsiveness), have yet to be integrated with preschool systems.<sup>57</sup> A recent meta-analytic study suggests that a parenting-focused component can be an important complement to preschool and produce added gains in children's cognitive skills. The key is that the component on parenting be delivered via modeling of positive interactions or opportunities for practice with feedback. Didactic workshops or classes in which parents merely receive information about parenting strategies or practices appeared to produce no additive benefits beyond those from the early education component of preschool alone.<sup>58</sup> Efforts to integrate recent advances in adult education and workforce development programs (a new set of two-

<sup>54</sup> Deming, D. (2009). Early childhood intervention and life-cycle skill development: Evidence from Head Start. *American Economic Journal: Applied Economics*, 1, 111-134; Garces, E., Currie, J., & Thomas, D. (2002). Longer term effects of Head Start. *The American Economic Review*, 92, 999-1012; Johnson, R. (2013). *School quality and the long-run effects of Head Start*. Manuscript in preparation; Ludwig, J., & Miller, D. L. (2007). Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *Quarterly Journal of Economics*, 122, 159-208.

<sup>55</sup> Hill, C., Gormley, W., & Adelstein, S. (2012). *Do the short-term effects of a strong preschool program persist?* Center for Research on Children in the United States, Working Paper # 18.

<sup>56</sup> Lipsley, M. W., Hofer, K. G., Dong, N., Farran, D. C., & Bilbrey, C. (2013). Evaluation of the Tennessee voluntary prekindergarten program: Kindergarten and first grade follow-up results from the randomized control design. Nashville, TN: Vanderbilt University, Peabody Research Institute.

<sup>57</sup> Fisher, P. A., Gunnar, M. R., Dozier, M., Bruce, J., & Pears, K. C. (2006). Effects of therapeutic interventions for foster children on behavioral problems, caregiver attachment, and stress regulatory neural systems. *Annals of the New York Academy of Sciences*, 1094, 215-225; Landry, S. H., Smith, K. E., Swank, P. R., & Guttentag, C. (2008). A responsive parenting intervention: The optimal timing across early childhood for impacting maternal behaviors and child outcomes. *Developmental Psychology*, 44, 1335-1353.

<sup>58</sup> Grindal, T., Bowne, J., Yoshikawa, H., Duncan, G.J., Magnuson, K.A., & Schindler, H. (2013). *The added impact of parenting education in early childhood education programs: A meta-analysis*. Manuscript in revise and resubmit.

or dual-generation programs), similarly, are just now being evaluated.<sup>59</sup>

## Preschool's Effects for Different Subgroups

Family income. Recent evidence suggests that high-quality preschool positively contributes to the language, literacy, and mathematics skills growth of both low- and middle-income children, but has the greatest impact on children living in or near poverty. Until recently, it has been difficult to compare the effectiveness of high-quality preschool across income groups, because almost all of the earlier studies focused on programs that targeted children from poor families. For example, the median percentage of families in poverty in rigorous early childhood education evaluations identified in a recent meta-analysis was 91%.<sup>60</sup> One study from the 1980's of the positive impacts of preschool education on children from well-to-do families suggested substantial positive impacts on boys.<sup>61</sup> More recently, the advent of universal prekindergarten in a small number of states and communities has permitted comparisons based on income. In two studies of public prekindergarten programs, positive and substantial impacts on language, literacy, and mathematics skills were obtained for both low- and middle-income children. In both of these studies, the impacts were larger for children living in or near poverty (as indicated by free- or reduced-lunch status), but still substantial for their less disadvantaged peers.<sup>62</sup>

Race/ethnicity. Overall, the current research evidence suggests that children of different racial/ethnic groups benefit from preschool. Many of the most prominent evaluations from the 1960's, 1970's and 1980's (e.g., Perry, Abecedarian, and the Chicago Parent-Child Centers) focused on African American students, with no comparisons of effects possible across different racial/ethnic groups. Several more recent studies have compared effects for students from different racial/ethnic backgrounds. The Head Start Impact Study reached somewhat different conclusions for three-year-olds and four-year-olds: for three-year-olds, positive post-program impacts were strongest for African Americans and Hispanics, relative to White, non-Hispanic children; for four-year-olds, positive impacts were smaller for Hispanics, again relative to White, non-Hispanic children.<sup>63</sup> The Tulsa study found substantial improvements in school readiness for prekindergarten participants from all racial and ethnic groups. Effect sizes were moderate to large for all racial and ethnic groups studied (white, black, Hispanic,

<sup>59</sup> Ascend at the Aspen Institute (2012). *Two Generations, One Future: Moving Parents and Children Beyond Poverty Together*. Washington, DC: The Aspen Institute; Chase-Lansdale, P.L., & Brooks-Gunn, J. (in press). *Two-generation programs in the 21<sup>st</sup> century. The Future of Children*.

<sup>60</sup> Leak, J., Duncan, G. J., Li, W., Magnuson, K., Schindler, H., & Yoshikawa, H. (2010, March). Is timing everything? How early childhood education program impacts vary by starting age, program duration and time since the end of the program. Paper presented at the Biennial Meeting for the Society for Research on Child Development, Montreal, Quebec, Canada.

<sup>61</sup> Larsen, J. M., & Robinson, C. C. (1989). Later effects of preschool on low-risk children. *Early Childhood Research Quarterly*, 4, 133-144.

<sup>62</sup> In Tulsa, Oklahoma, across multiple cohorts of students, researchers found substantial benefits from prekindergarten participation for children from poor (free lunch; up to 130% of the federal poverty line), near-poor (reduced-price lunch; 130%-185% of the poverty line), and middle-class (full-price lunch; >185% of the poverty line) families. The studies on these cohorts used a rigorous regression-discontinuity design, taking advantage of a long-standing age-cutoff requirement to enter the program in a particular year. In 2003 and 2006, positive effects on children's language, literacy, and mathematics skills were higher for free-lunch students than for ineligible students but statistically and substantively significant for both. In 2006, children from poor families entering kindergarten were 11 months ahead, children from near-poor families entering kindergarten were 10 months ahead, and children from middle-class families entering kindergarten were 7 months ahead of the control group (test scores for the treatment group and the control group were converted into age-equivalent test scores, using national norms from the Woodcock-Johnson Test). Gormley, W., Gayer, T., & Phillips, D.A. (2008). Preschool programs can boost school readiness. *Science*, 320, 1723-24; Gormley, W., Gayer, T., Phillips, D.A., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41, 872-884. In Boston, Massachusetts, researchers also used a regression discontinuity design and found that both children eligible for free / reduced-price lunch and more middle-class children improved their language, literacy, and mathematics outcomes, emotional development, and some executive functioning outcomes as a result of pre-K. Impacts were statistically significantly larger on some assessments for children from low-income families. Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*.

<sup>63</sup> These were statistically significant differences in impacts across these groups. U.S. Department of Health and Human Services. (2010). *Head Start Impact Study: Final report*. Washington, DC: Administration for Children and Families, Office of Planning, Research and Evaluation.

Native American) but especially large for Hispanics.<sup>64</sup> The Boston study found substantial benefits in language, literacy, mathematics, and executive functioning domains for children from all racial and ethnic groups. Effect sizes were especially large for Hispanics and for Asian Americans, though the sample size for Asian Americans was relatively small.<sup>65</sup>

Dual language learners and children of immigrants. Positive impacts of preschool can be as strong or stronger for dual language learners and children of immigrants, compared to their English-speaking or native-born counterparts. Given the specific challenges and opportunities faced in school by dual language learners (DLL)<sup>66</sup> and the growing number of such students in the U.S., it is important to know how high-quality preschool programs impact them in particular, as well as the features of quality that are important to their development. National non-experimental evidence suggests that positive effects of preschool on early reading and math achievement are as strong for children of immigrants as for children of the native-born.<sup>67</sup> In the Tulsa prekindergarten program, effects for Hispanic students who came from homes where Spanish was the primary spoken language (dual language learners) were larger than effects for Hispanic students who came from homes where English was the primary spoken language.<sup>68</sup> And the National Head Start Impact Study found significantly stronger positive impacts of Head Start on language and school performance at the end of kindergarten for dual-language learners, relative to their native speaking counterparts.

Generally, the same features of quality that are important to the academic outcomes of monolingual English speaking children appear to be important to the development of DLL. However, a feature of early childhood settings that may be important specifically to the development of DLL is language of instruction. There is emerging research that preschool programs that systematically integrate both the children's home language and English language development promote achievement in the home language as well as English language development.<sup>69</sup> While there are no large meta-analytic studies of bilingual education in preschool, meta-analyses of bilingual education in elementary school and several experimental preschool studies have reached this conclusion.<sup>70</sup> Home language development does not appear to come at the cost of developing English language skills, but rather strengthens them. Thus, programs that intentionally use both languages can promote emergent bilingualism, a characteristic that may be valuable in later development.<sup>71</sup> Children with special needs. More rigorous research is needed on the effects of preschool on

<sup>64</sup> Gormley, W., Gayer, T., Phillips, D.A., & Dawson, B. (2005). The effects of universal pre-k on cognitive development. *Developmental Psychology*, 41, 872-884, p. 880.

<sup>65</sup> Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*, p. 11.

<sup>66</sup> The term dual language learners (DLLs) is used to refer to children learning more than one language in the home and ECE settings during the early childhood years (ages 0-5); other terms, such as English (LEP), English Learners (ELs), Non-English speaking (NES), English as a second language (ESL), and Bilinguals are used to refer to children in grades K-12 who are learning English in addition to a home language.

<sup>67</sup> Magnuson, K., Lahaie, C., & Waldfogel, J. (2006). Preschool and school readiness of children of immigrants. *Social Science Quarterly*, 87, 1241-1262.

<sup>68</sup> Tests were conducted in English; Gormley, W.T. The effects of Oklahoma's pre-k program on Hispanic children. *Social Science Quarterly*, 89, 916-936, p. 928.

<sup>69</sup> Barnett, W. S., Yaroz, D.J., Thomas, J., Jung, K., & Blanco, D. (2007). Two-way immersion in preschool education: An experimental comparison. *Early Childhood Research Quarterly*, 22, 277-293; Durán, L.K., Roseth, C.J., & Hoffman, P. (2010). An experimental study comparing English-only and transitional bilingual education on Spanish-speaking preschoolers' early literacy development. *Early Childhood Research Quarterly*, 25, 207-217. Winsler, A., Díaz, R.M., Espinosa, L., & Rodríguez, J.L. (1999). When learning a second language does not mean losing the first: Bilingual language development in low-income, Spanish-speaking children attending bilingual preschool. *Child Development*, 70, 349-362.

<sup>70</sup> Goldenberg, C. (2012). Research on English Learner instruction. In M. Calderón (Ed.), *Breaking through: Effective instruction & assessment for reaching English Learners* (pp. 39-61). Bloomington, IN: Solution Tree Press; Slavin, R., Madden, N., Calderón, M., Chamberlain, A., & Hennessy, M. (2011). Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education. *Educational Evaluation and Policy Analysis*, 33, 47-58.

<sup>71</sup> Bialystok, E. (2001). *Bilingualism in development: Language, literacy, & cognition*. New York: Cambridge University Press; Saiz, A., & Zoido, E. (2005). Listening to what the world says: Bilingualism and earnings in the United States. *Review of Economics and Statistics*, 87, 523-538.

children with special needs (note that we do not discuss effects of preschool programs that serve only children with special needs). The Head Start Impact Study found that children with special needs randomly assigned to Head Start as 3-year-olds made significant gains in math and social-emotional development at the end of first grade compared to peers assigned to the control group.<sup>72</sup> Research on the Tulsa prekindergarten program found that children with special needs who participated in prekindergarten experienced significant improvements – comparable to those for typically developing children -- in their reading skills and-writing skills, though not necessarily in math. There is a need to test these patterns in other studies.

## The benefits of quality preschool outweigh the costs

High-quality preschool programs are one of many possible ways to support children's development, and it is important to ask whether the benefits from such programs can offset their considerable costs. Cost-benefit frameworks enable researchers to assess the value of social investments.<sup>73</sup> Key to this technique is a systematic accounting of the costs and benefits of an intervention, based on a careful comparison of outcomes for those individuals who participated in the program and otherwise similar individuals who did not. Early childhood education costs refer to all expenditures necessary to provide the program, including staff time and capital investments. Benefits typically take one of two forms. First, benefits may come from cost savings, such as reduced spending for special education and grade retention, as well as lower involvement in the child protection, welfare, and criminal justice systems. Second, benefits may flow from greater economic productivity, especially higher earnings as adults. It is also important to note that benefits can accrue not only to the individuals who directly participated in preschool programs, but also to society (e.g., the value of not being a crime victim). When both costs and benefits are quantified, researchers can produce an estimate of a program's benefits relative to its costs.

Rigorous efforts to estimate benefit/cost ratios of preschool have yielded very positive results, suggesting that early childhood education can be a wise financial investment. Using data on the long-term life outcomes of program participants and non-participants, assessments of the Perry Preschool program<sup>74</sup> and the Chicago Parent Child Centers<sup>75</sup> both yielded estimates of about 7 to 1 or higher. Estimates of the longer and thus more costly Abecedarian Project (program length of 5 years) have produced a lower estimate of approximately 2.5 to 1.<sup>76</sup> Other scholars, lacking hard evidence on long-term impacts for program participants and non-participants who have not yet become adults, have made projections by blending evidence on short-term results from the program with evidence on the relationship between short-term results and adult outcomes from other sources. Such efforts have yielded estimates for universal prekindergarten programs (available to children from all income groups) that range from 3 to 1 to 5 to 1.<sup>77</sup> The divergence of estimates across programs suggests that it may

<sup>72</sup> Phillips, D., & Melyo, E. (2012). High-quality school-based pre-k can boost early learning for children with special needs. *Exceptional Children*, 78, 471-90; U.S. Department of Health and Human Services. (2010). *Head Start Impact Study: Final report, executive summary*. Washington, DC: Administration for Children and Families, Office of Planning, Research and Evaluation, p.xxiv.

<sup>73</sup> Gramlich, E. (1998). *A guide to benefit-cost analysis, 2nd edition*. Prospect Heights, IL.: Waveland Press.; Weimer, D., & Vining, A. (2011). *Policy analysis: Concepts and practice, 5th edition*. Boston: Longman.

<sup>74</sup> Heckman, J. J., Moon, S. H., Pinto, R., Savellyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94, 114-128.

<sup>75</sup> Reynolds, A.J., Temple, J.A., Robertson, D.L., & Mann, E.A. (2002). Age 21 cost-benefit analysis of the Title I Chicago Child-Parent Centers. *Educational Evaluation and Policy Analysis*, 24, 267-303; Reynolds, A. J. Temple, J. A., White, B., Ou, S., & Robertson, D. L. (2011). Age-26 cost benefit analysis of the Child-Parent Center Early Education Program. *Child Development*, 82, 379-404.

<sup>76</sup> Barnett, W.S., & Massie, L. (2007). Comparative benefit-cost analysis of the Abecedarian program and its policy implications. *Economics of Education Review*, 26, 113-25.

<sup>77</sup> Bartik, T., Gormley, W.T., & Adelstein, S. (2012). Earnings benefits of Tulsa's pre-k program for different income groups. *Economics of Education Review*, 31, 1143-61; Karoly, L., & Bigelow, J. (2005). *The economics of investing in universal preschool education in California*. Santa Monica, CA: RAND Corporation; Southern Education Foundation. (2011). *The promise of Georgia pre-k*. Atlanta, GA: Author.

be hard to predict the exact rate of return for programs. However, the best current evidence suggests that the impact of quality preschool per dollar spent on cognitive and achievement outcomes is larger than the average impact of other well-known educational interventions per dollar spent, such as class-size reductions in elementary schools.<sup>78</sup>

The consistent finding of benefits that substantially exceed preschool program costs indicates that high-quality early childhood education programs are among the most cost-effective educational interventions and are likely to be profitable investments for society as a whole.

## **Appendix: Which evaluation designs are strong enough to produce trustworthy evidence?**

*We draw in this section from a fuller discussion in: National Forum on Early Childhood Policies and Programs (2007). *Early Childhood Program Evaluations: A Decision-Maker's Guide*. Cambridge, MA: Harvard Center on the Developing Child, National Forum on Early Childhood Programs and Policies.*

*[http://developingchild.harvard.edu/index.php/download\\_file/-/view/68/](http://developingchild.harvard.edu/index.php/download_file/-/view/68/)*

We have focused as much as possible in this brief on studies that use the most rigorous study designs and on meta-analyses that reveal patterns in effects across many studies. We define as “rigorous” studies that use designs that compare children or parents who receive program services with a “virtually identical” comparison group of children or parents who do not receive those services.

The ideal method for assessing program effects is an experimental study referred to as a randomized controlled trial or RCT. In an RCT, children who are eligible to participate in a program are entered into a “lottery” where they either win the chance to receive services or are assigned to a comparison (control) group. Parents or program administrators have no say in who wins and loses this lottery. If sufficient numbers of children end up in the program and control groups, and the implementation of random assignment is successful (i.e., there are no significant differences between the two groups in their demographics or in the outcomes of interest prior to the intervention), then any post-program differences in achievement, behavior, or other outcomes of interest between the two groups can be attributed to the program with a high degree of confidence.

### **Although random assignment of children or parents to program and comparison groups is the “gold standard” for program evaluation, sometimes this is not possible**

In some circumstances, a randomized controlled trial is not feasible. One of the most frequently used alternative methods available to program evaluators is called a Regression-Discontinuity Design (RDD). In this case, assignment to either the control or the

<sup>78</sup> Bartik, T., Gormley, W.T., & Adelstein, S. (2012). Earnings benefits of Tulsa's pre-k program for different income groups. *Economics of Education Review*, 31, 1143-61; Borman, G. D., Hewes, G. M., Overman, L. T., & Brown, S. (2003). Comprehensive school reform and achievement: A meta-analysis. *Review of educational research*, 73, 125-230; Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool program. *Journal of Public Economics*, 94, 114-128; Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood interventions: Proven results, future promise*. Santa Monica, CA: RAND Corporation; Krueger, A. B. (1999). Experimental estimates of education production functions. *The Quarterly Journal of Economics*, 114, 497-532.



intervention group is defined by a cut-off point along some continuum (such as age). For example, a number of public prekindergarten (pre-K) evaluations have taken advantage of strict birthday cut-off dates for program eligibility. In some states, children who are four years old as of September 1 are eligible for enrollment in Pre-K, while those who turn four after September 1 must wait a year to attend. The key comparison in an RDD is between children with birthdays that just make or just miss the cutoff, since they presumably differ only in the fact that the older children attend Pre-K in the given year while the younger ones do not. Comparing kindergarten entry achievement scores for children who have completed a year in Pre-K with the scores measured at the same time for children who just missed the birthday cutoff and are about to enter Pre-K can be a strong indicator of program impacts, provided that there is evidence that the cutoff policy was not manipulated by participants and adjustments are made for differential selection into “treatment” and “control” research groups.<sup>79</sup>

Other methods used in recent nonexperimental preschool studies include propensity score weighting, individual, sibling or state fixed-effects, and instrumental-variables analysis.<sup>80</sup>

### Why some evaluation designs are problematic

Evaluations that select comparison groups in other ways should be approached with healthy skepticism. The key concern is how well children enrolled in the program are matched to children in the comparison group, as countless studies have shown how difficult it is to select comparison groups that are unbiased. Especially important indicators of the quality of the match are assessments of outcomes of interest for both program and comparison-group children taken just prior to the point of program entry, as well as indicators of parental “motivation” if possible. The closer the match on multiple characteristics, the more one can trust the findings. Evaluations that do not detail pre-service characteristics of program and comparison-group children should be viewed suspiciously.

For example, simple comparisons of state standardized test scores before and after the implementation of large-scale ECE do not take into account how the population of children may differ across time. As one possibility, increased immigration into a state might bring children who speak English as a second language and tend to score lower on tests, compared to children who speak English as a first language. If so, any effect of ECE programs in raising the average level of achievement will be obscured when examining trends in state test scores. Economic conditions may change too across time -- these can have important effects on children’s achievement when assessed at different timepoints.<sup>81</sup>

### Generalizing study results to other populations

An additional important consideration when interpreting the results from any study is the population from which study participants were sampled. This is the population to whom study results apply. For example, results from studies that include only preschool children from low-income families apply only to children from that demographic. Results do not

<sup>79</sup> See Weiland & Yoshikawa (2013) for discussion of some of the threats to validity in RDD designs, and approaches to addressing them.

<sup>80</sup> For a recent review of such methods, see Murnane, R. J., & Willett, J. B. (2010). *Methods matter: Improving causal inference in educational and social science research*. New York: Oxford University Press.

<sup>81</sup> Ananat, E. O., Gassman-Pines, A., Francis, D. V., & Gibson-Davis, C. M. (2011). *Children left behind: The effects of statewide job loss on student achievement* (NBER Working Paper No.17104). Cambridge, MA: National Bureau of Economic Research.

generalize to preschool children from higher-income families. How preschools were selected is equally important. A sample of preschools that volunteered to implement a new curriculum, for example, has more limited implications than a broader sample of preschools that were mandated to implement a new curriculum.

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