

New Perspectives for Learning - Briefing Paper 15

Early learning: the impact of environmental factors

Context of the Research

There is a widely held belief that early experiences have an important effect on developmental outcomes during pre-school and primary school phases. In order to gain a better understanding of how different factors affect children's development, research has been conducted into the organised programmes for the care and education of young children prior to the time they are enrolled in the primary school system in Austria, Germany, Portugal and Spain. These various programmes and activities have been collectively called the "Early Childhood Programme" (ECP).

This project consisted of two studies. The first study focused on 4 year olds in their pre-school and their home environment and aimed to get a better understanding of the nature and quality of care and how it affects the children's developmental outcomes. A second study, excluding the Portuguese children, looked at the same children as 8 year olds, when they had moved up to primary school.

Key Conclusions

The following observations and conclusions are based on a number of factors that can affect child development at pre-school and on entry to primary school: -

1. *Pre-school care* - The average age for children enrolled on out-of-home care is 3 years old. Austrian children start about half a year later. The amount of time spent in pre-school out-of-home care is 3 years, 7 months (Germany), 3 years, 1 month (Austria), 2 years, 5 months (Spain).
2. *Adjusting to primary school* - Children's adjustment to primary school in the first year is considered "quite positive" by most of the mothers. But German students were considered to be the least well adjusted by their mothers, they also score lower in school achievements.
3. *Teacher/Parent relationships at primary school:* -
 - a) Teachers from all countries offer an average of 1-2 parent meetings in one half-school year, which are attended by 74% - 85% of parents. More teacher consultation hours are offered to Spanish parents.

- b) Teachers estimate that homework takes 3 hours a week (Spain) and 2.5 hours a week (Austria & Germany). However parents estimate that their children take 30% longer (Germany) to 90% longer (Spain).
- c) There is a direct relationship between positive parent/teacher relationships and better adjustment to primary school. All of the mothers considered their relationship with the teacher as "rather good". Austrian mothers gave the highest ratings.

4. *Pre-school teachers:* -

- a) Teachers see their role as more influential in child development than mothers do, they are slightly less direct and academic in their child-rearing attitudes, and tend to emphasise the personal development of the child as the task of an early childhood programme.
- b) The levels of teachers' interaction tone (measuring the sensitivity, acceptance and involvement of the teacher) were considered high in all countries.
- c) Overall there seems to be a generally accepted standard of appropriate, humane and educational interaction with the children.

5. *Primary teachers:* -

- a) Teachers spend 4-6 days a year on in-service training and are "quite satisfied" with their jobs.
- b) A quarter of Spanish teachers are male compared to 1 in 12 in Germany and Austria.
- c) Spanish teachers give language, mathematics, and science 4 hours a week. Austrian and German teachers give more emphasis on language (6-7) and mathematics (4-5) than on science (3).

6. *Pre-school classrooms:* -

- a) At least two-thirds of classrooms in each country are mediocre or of inadequate quality.
- b) In Germany and Austria more time is allocated to free play, compared to Portugal and Spain where there is a higher orientation of planned and structured activities.
- c) 20% of children's classroom time is spent in co-operative play. In contrast, 50% is spent doing the same task as another child without interacting co-operatively about the task with other children.

7. *Primary classrooms:* -

- a) Class sizes are about 22 to 24 students and whole group instruction is prevalent, with only a tenth to a seventh of instruction time spent in small group work. One in seven students in Austria and Germany are of foreign origin with one in four having language difficulties. Spain only has about 1% of foreign students.
- b) In Spain early childhood programmes (ECP) and primary schools are under the same administration. In Germany and Austria they are independent bodies. This can affect the continuing good or bad quality of the two phases.
- c) Classroom quality can be characterised by a higher number of instruction hours per week, more homework, higher diversity of materials as well as a higher degree of teacher's classroom management, more emphasis on the relevance of content and more emphasis on sociability and co-operation among children.

8. *Home life of pre-school children:* -

- a) On average, the children live with two adults, have parents of a similar age and have employed fathers (90-96%). They have one sibling and their own room. They also have opportunities to interact with other children in their neighbourhood.
- b) German and Austrian families have a more general education and a higher household income than Spanish or Portuguese families. 90% of Portuguese and Spanish mothers are married. In contrast, 83% of German mothers and 73% of Austrian mothers are married.
- c) Three quarters of Portuguese mothers participate in the labour force compared to one third of Spanish mothers, and half of German and Austrian mothers. However, Austrian mothers are absent from home on average per week for 24 hours, 32 hours for German and Spanish mothers and 44 hours for Portuguese mothers.
- d) Austrian and German families scored higher on an "activity scale" which measured participation in activities such as making puzzles, listening to stories, talking games, competitive games etc. Whereas, German families scored highest for general stimulation in the family.
- e) Early childhood programmes have a considerable impact on family life including the amount of maternal care, labour force participation, relationships among family members and the social network of children and parents.
- f) Mother's educational level, favourable spatial situations, fewer siblings, a higher degree of stimulating interaction, diversity of activities and earlier developmental expectations directly affect the quality in the family setting during the pre-school phase.

9. *Home life of primary school children:* -

- a) The majority of parents in all countries are made up of a mother and father. The highest instance is found in Spain. It is common that both parents work away from home (on average 50 hours for fathers and 27-36 hours for mothers). One half of mothers in Spain work, compared to two thirds of mothers in Germany and Austria.
- b) 5 hours are spent at school and 45 minutes (Austria & Germany) to 70 minutes (Spain) on homework. Including homework children spend on average up to 50% of their waking time on school and school-related issues.
- c) An own room for children, earlier developmental expectations for mothers, more stimulating processes and activities in the family affect educational quality in the family setting during the primary school phase.

10. *Educational expectations of pre-school children:* -

- a) Mothers and teachers have similar expectations about the age children should master developmental skills, such as language, autonomy, motor skills and social development. Expectations about the sequence in which this development takes place were also reasonably similar.
- b) Mothers and teachers perceive individual differences in children as a combination of heredity and education but see parents as a stronger influence on children's development.

11. *Educational expectations of primary school children:* -

- a) Mothers and teachers give top priority to goals relating to children's personality and sociability, followed by achievement-related goals, with aesthetic goals being given the least importance.
- b) Mothers and teachers rate tasks designed to encourage co-operation among students as more important than the "three R's".
- c) Mothers see competent, well-trained teachers and good classmates and friends as the most important characteristics of a good school.
- d) Austrian and German mothers place more importance on learning that involves parents and teachers (e.g. assign homework) and on informal methods (e.g. excursions). Spanish mothers prefer teachers to take sole responsibility for learning and favour more formal methods (e.g. visiting museums).

Key Recommendations

The study made the following recommendations: -

1. Policy makers should recognise that school success is highly dependent on high quality practises in both the Early Childhood Programmes and the primary school education systems.
 - a) These practises can be flexible if they provide relevant education of a consistently high quality.
 - b) The approach of non-selective and inclusive education should be developed and extended.
 - c) Emphasis needs to be placed on the inclusion of the 10-15% of children who struggle with transition into primary schooling.
 - d) The goal of education reform should be to reduce these problems with transition, which can lead to serious problems. This needs to be implemented by a combination of in-school measures and better parent-school co-operation.
2. Early Childhood Programmes are an important support system for children's development in the pre-school phase and school success in primary schools: -
 - a) They have an important educational function and should be viewed as important components in building more successful national educational systems.
 - b) This requires a solid financial basis and well-trained professionals operating within an appropriate efficient and support framework, to utilise the educational potential of Early Childhood Programmes.
3. Students need opportunity, time and a variety of materials that allow different ways of learning: -
 - a) A sufficient amount of instruction hours needs to be insured in the first grades of primary schooling.
 - b) A sufficient number and variety of materials need to be available to the students and teachers.
 - c) Teachers should be made more aware of the benefits of good classroom management.
 - d) Students need sufficient time for contextualised learning, with the chance to both apply and transfer their learning.

- e) Close co-operation between parents and teachers needs to be regarded as an important element of successful primary schooling.
4. Strengthening the educational resources available to all families is a very important task: -
- a) The development of education-related conditions and resources in families should be the primary goal of family-support measures.
 - b) Support for families should be initiated before a child's birth and should be a process that accompanies the growth of a child, at least until the child has made the transition into primary schooling. This should ensure that a close relationship between families and their primary schools is established.
 - c) Parent-education does exist and could be extended to establish a system of accompanying parent education. Incentives should be considered to encourage parent's co-operation in such programmes.
5. Future research into the educational quality experienced by children in their various settings needs to continue to provide better information for policy makers, administrators and practitioners to make crucial improvements.

Further Information

The full title of the project: "European Child care and Education Study" with the final report completed on 31 December 1999.

[Full report](#), [Partner details](#)

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