Early Childhood Education Study
Progress Report

Juliane Hencke, Caroline Sharp, Tony Bertram, Chris Pascal

IEA Standing Committee – 5 October 2013
Study Overview

• ECES is a cross-national study...
  – Exploring, describing, and analysing provision of early childhood education (ECE)
  – Analyzing how ECE contributes to children’s outcomes

• Aims to...
  – Provide a framework for countries to benchmark their ECE systems in an international context
  – Examine the relationships between policy aims, ECE provision, family background and child outcomes
  – Investigate the relationships between characteristics of ECE and children’s competencies
What makes ECES unique?

• Provide an evidence based understanding of the components that children need to develop in order to make a successful transition to school
• Provide a reliable, robust and holistic measure of child outcomes
• Provide insight in the nature of an ECE system and which structure an ECE system needs to achieve these outcomes
• Provide detailed information on children outcomes to help inform investment decisions
What makes ECES unique?

- Diversity of countries
- Covers different levels of ECE: intended - implemented - achieved policies
- Covers diverse consumer perspectives (settings, practitioners, parents)
- Provide a range of outcome measures based on an international framework
**Study Management**

- **IEA Data Processing and Research Center (IEA DPC):** Study coordination, practitioner questionnaire, sampling, data processing, analysis
- **National Foundation for Educational Research (NFER):** Study framework, ECE setting and home questionnaire
- **Centre for Research in Early Childhood (CREC):** Policy questionnaire and child assessment
- **IEA Secretariat:** Translation verification, quality monitoring
Phase 1

**Policy Questionnaire (1)**

Phase 2

**Focus:** Children attending center-based education and care in the final year of ISCED 0

„Programmes at ISCED level 0, or early childhood education, are typically designed with a holistic approach to support children’s early cognitive, physical, social and emotional development and introduce young children to organized instruction outside of the family context. ISCED level 0 refers to early childhood programmes that have an intentional education component.

These programmes aim to develop socio-emotional skills necessary for participation in school and society. They also develop some of the skills needed for academic readiness and prepare children for entry into primary education. “ (UNESCO, 2012)
Target Population

• The approach is grade based, because
  – This study is about children’s entire ECE experiences and outcomes
  – We want to measure children’s outcomes at the end of ISCED 0

• However, we are aware of the need to
  – Develop an assessment which is suitable for children of different ages
  – To take care when reporting the results
## Project Milestones 2013-2014

<table>
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<tr>
<th>Date</th>
<th>Milestones</th>
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<tbody>
<tr>
<td>Jan 2013</td>
<td>Start development study framework and Policy Questionnaire</td>
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<tr>
<td>10-11 Jun 2013</td>
<td>1st Project Advisory Committee meeting (Birmingham, UK)</td>
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<td>29 Jul-1 Aug 2013</td>
<td>1st NRC Meeting (Hamburg, Germany)</td>
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<tr>
<td>Aug 2013-Feb 2014</td>
<td>Study framework revision</td>
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<td>Aug 2013-May 2014</td>
<td>Initial instrument development</td>
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<td>Nov/Dec</td>
<td>Pilot Policy Questionnaire</td>
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<td>9-10 Jan 2014</td>
<td>2nd PAC meeting (Hamburg, Germany)</td>
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<td>24-28 Feb 2014</td>
<td>2nd NRC Meeting (Rome, Italy)</td>
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<td>Apr/May 2014</td>
<td>Main Study Policy Questionnaire</td>
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<td>May-Sep 2014</td>
<td>Development draft Field Trial instruments</td>
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<td>15-19 Sep 2014</td>
<td>3rd NRC Meeting (TBA)</td>
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<tr>
<td>Nov 2014</td>
<td>Data Management Seminar (Hamburg, Germany)</td>
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<tr>
<td>Nov 2014</td>
<td>Finalize Field Trial instruments</td>
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# Project Milestones 2015-2018

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<tr>
<td>Dec 2014-Mar 2015</td>
<td>Translation and verification of FT instruments</td>
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<td>Feb 2015</td>
<td>Publish Report 1: Outcomes of Policy Questionnaire</td>
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<tr>
<td>Apr-May 2015</td>
<td>Field Test</td>
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<tr>
<td>Jun-Nov 2015</td>
<td>Data processing and analysis of FT results</td>
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<td>Dec 2015</td>
<td>Finalize Main Study instruments</td>
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<td>Jan-Mar 2016</td>
<td>Translation and verification of Main Study instruments</td>
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<td>Feb 2016</td>
<td>Publish Study Framework</td>
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<td>Apr-May 2016</td>
<td>Main Study Northern Hemisphere Countries</td>
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<td>Sep-Oct 2016</td>
<td>Main Study Southern Hemisphere Countries</td>
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<td>Oct 2017</td>
<td>Publish Report 2: Questionnaire Outcomes</td>
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<td>Feb 2018</td>
<td>Publish Report 3: Assessment Outcomes</td>
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<td>Sep 2018</td>
<td>Publish Report 4: Final Report</td>
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<td>Nov 2018</td>
<td>Release International Database</td>
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### Participants at the 1st NRC Meeting

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<td>Czech Republic</td>
<td>New Zealand</td>
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Plus representatives from European Commission and OECD ECEC Network

Other countries having expressed some interest in the study:
Abu Dhabi, Cameroon, Colombia, Costa Rica, Cyprus, Georgia, India, Iran, Israel, Korea, Mexico, Netherlands, Nicaragua, Paraguay, Peru, Portugal, Switzerland

Age at final year of ISCED0: 6yo 5yo 4yo
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Summary of 1st NRC Meeting

• Child outcomes are the aspect of greatest interest to country representatives
• Framework needs to be re-organized, so that the assessment module is the focus of the study
• Research questions need to be more directed to outcome measures
• There should be a greater focus on pedagogic practice
• Interest was expressed in administering the assessment earlier than the final year of ISCED 0 (as national option?)
Conceptual Diagram

National/Regional/Local Policies

ECE Setting
- Structural characteristics
- Leadership and quality processes

Practitioners
- Practitioner characteristics
- Process and engagement

Child Outcomes (competencies)
1. Social and emotional
2. Dispositional and learning
3. Physical
4. Language and literacy
5. Numeracy

Family and Child
- Characteristics
- Home Learning Environment
ECES Research Questions

Study focus is on how ECE contributes to children’s outcomes

1. What variations exist between and within countries in outcomes for children attending ECE?

2. What aspects of ECE systems are related to outcomes for children’s early learning and development?
   a. System context, policy aims and quality assurance for ECE
   b. ECE staff qualifications and continuing professional development
ECES Research Questions

3. What is the contribution of the ECE settings in the final year of ECE programs?
   a. ECE setting characteristics, aims and resources
   b. ECE staff qualifications and continuing professional education
   c. ECE staff practices in working with children
   d. ECE setting leadership and quality assurance systems
   e. Communication with and involvement of families
4. What aspects of children’s personal and social background and family context are related to children's outcomes?

a. To what extent do these relationships differ within and between countries?

b. Are there particular aspects of the ECE system or setting that mediate these relationships?
ECES Instruments

Phase 1
• Policy Questionnaire

Phase 2
• Comprehensive set of contextual questionnaires
  – ECE Setting Questionnaire
  – Practitioner Questionnaire
  – Home Questionnaire
• Assessment module evaluating different aspects of children’s outcomes
  – Practitioner ratings
  – Assessment tasks
Identification of Key Learning Domains, Sub-Domains and Indicators

- **Theoretical Grounding:** Vygotskian socio-constructivist approach to learning which accepts children’s experience and environment shape learning outcomes;

- **Empirical Grounding:** thorough review of international evidence to identify those early learning outcomes which are associated significantly with later achievement and attainment and which are widely acknowledged as important at end of ISCED 0, and which can be assessed reliably, rigorously and efficiently.
Learning Domains, Sub-Domains, Indicators

**Domains**
- Social & Emotional Competence
- Dispositional and Learning Competence
- Physical Competence
- Language & Literacy Competence
- Numeracy Competence

**Sub-Domains**
- a. Sociability
- b. Emotional literacy and well being
- a. Attitudes and mindsets
- b. Underpinning learning skills
- a. Gross motor skills
- b. Fine motor skills
- a. Early language skills
- b. Early literacy skills
- a. Number concepts and operations
- b. Spatial concepts

**Indicators**
- Social competence
- Self-regulation
- Self-concept
- Exploratory drive and curiosity
- Involvement/interest
- Persistence
- Locomotion
- Coordination
- Manipulation and handling
- Speaking and communication
- Story picture sequencing
- Comprehension
- Simple number computation
- Problem solving
- Language of spatial objects
Assessment Design Considerations

• Psychometrically robust and reliable
• Inclusive of 5 Learning Domains and able to discriminate developmental differences
• Graduated assessment (possible 3-7 year span, but probably most 5-6 years)
• Ethical, respectful of children’s rights and well being
• Interactive, meaningful and attractive items
• Easy to train and implement and manageable in terms of translation efforts
• Adaptable to different cultural contexts and low resource settings
Two assessment modes which will be used as a blended assessment approach for all 5 learning domains to ensure reliability and efficiency in the assessment process:

1. **Direct Assessment Tasks (DAT)**
   (by trained External Administrator)

2. **Practitioner Rating (PR)**
   (by practitioner who is familiar to the children)
Assessment Design

Social & Emotional
- Sub-Domain 1
  - Ind. 1
  - Ind. 2
- Sub-Domain 2
  - Ind. 3

Dispositional and Learning
- Sub-Domain 1
  - Ind. 1
  - Ind. 2
- Sub-Domain 2
  - Ind. 3

Physical
- Sub-Domain 1
  - Ind. 1
  - Ind. 2
- Sub-Domain 2
  - Ind. 3

Language & Literacy
- Sub-Domain 1
  - Ind. 1
  - Ind. 2
- Sub-Domain 2
  - Ind. 3

Numeracy
- Sub-Domain 1
  - Ind. 1
  - Ind. 2
- Sub-Domain 2
  - Ind. 3
Administration of Assessment

• Direct assessment tasks administered by trained external administrator: 30 mins per child
• Practitioner ratings administered by setting practitioner: 15 mins per child
• Clear and standardised instructions for assessment administration
• 15 sampled children per setting assessed
• Assessment undertaken in 2 week period in setting during a three month window before the end of ISCED 0
• IEA Quality Assurance procedures applied
• No ranking of countries but could for example, draw comparisons against countries with similar models of/approaches to ECE
• Separate scales for 5 Learning Domains
• Linking of outcomes evidence to in country and between country systemic, structural and process evidence
• Country profile using radar diagrams with country mean scores, for example:
Thank you!