Short-term effects of a quality improvement intervention within preschools

THE SOUTH DUBLIN NATIONAL EARLY YEARS ACCESS INITIATIVE

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Co-authors: McCormack, M., Kavanagh, L., Goodman, D., Monaghan, C., & Brocklesby, S.
Evaluation of National Early Years Access Initiative
South Dublin NEYAI Project 2011 - 2014

Addressing Gaps Between Training and Practice
Project Rationale

Quality
Linked to outcomes

Early intervention
Provides window of opportunity

Professional development
Graduate led sector

Mentoring
Change behaviour
Aim of paper

*Primary Aim:* Evaluate the effectiveness of a multi-layered intervention which focussed on mentoring on the quality of early childhood care and education
The intervention
1. Quality Mentoring

6. Parent & Child Consultation

2. Professional development

3. Corporate Governance

4. Learning Communities & Networks

5. Work Placement Training

A quality improvement early childhood care and education intervention
Intervention Expert Group

1. Early childhood specialist
2. Síolta mentor
3. Quality specialist
4. Member of Early Years National Strategy group
5. Manager of large service in local area
Resources

ALL ABOUT THE ECERS-R
Debby Cryer
Thelma Harms
Cathy Riley
A detailed guide in words & pictures to be used with the ECERS-R

ALL ABOUT THE ITERS-R
Debby Cryer
Thelma Harms
Cathy Riley
A detailed guide in words & pictures to be used with the ITERS-R

Aistear
Creat uraelam na Luath-Óige
The Early Childhood Curriculum Framework

síolta
The National Quality Framework for Early Childhood Education

The Hanen Program
Methodology
Research Design

Repeated Measures Design

Baseline
Sept. ‘12
Mid-test
April ‘13
Post-test
Jan ‘14

Process Evaluation
Methodology

Participants and Settings
8 preschools located in areas of high disadvantage
13 rooms

Measurements and Procedure
The Early Childhood Environment Rating Scale (ECERS)
The Infant/Toddler Environment Rating (ITERS)
One-to-one interviews with preschool managers
Haase Pratschke Index for relative deprivation
Methodology

Participants and Settings
8 preschools located in areas of high disadvantage
13 rooms

Measurements and Procedure
The Early Childhood Environment Rating Scale (ECERS)
The Infant/Toddler Environment Rating (ITERS)
One-to-one interviews with preschool managers
Haase Pratschke Index for relative deprivation
The ECERS and ITERS Scales
The Results
## Profile of the preschools

<table>
<thead>
<tr>
<th>Service</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half day provision</td>
<td>3</td>
</tr>
<tr>
<td>Full day provision</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rooms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby</td>
<td>0</td>
</tr>
<tr>
<td>Wobbler</td>
<td>2</td>
</tr>
<tr>
<td>Toddler</td>
<td>2</td>
</tr>
<tr>
<td>Preschool</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Curriculum</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Play based</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Siolta</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Validated</td>
<td>1</td>
</tr>
</tbody>
</table>
Geographical location
Sample Demographics

4.7km
Unemployment Rates

Range 22% - 69%

Third level qualification

Range 6% - 22%

Lone Parent

Range 18% - 81%

Data source: Pobal Maps, 2013; CSO, 2011
## Descriptive of preschools

<table>
<thead>
<tr>
<th></th>
<th>Baseline (n=8)</th>
<th>Mid-test (n=8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of children</td>
<td>347</td>
<td>411</td>
</tr>
<tr>
<td>Total number of children with additional needs†</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Average age of child</td>
<td>4.2 ± 0.4</td>
<td>4.1 ± 0.7</td>
</tr>
<tr>
<td>Total number of staff</td>
<td>88</td>
<td>75</td>
</tr>
<tr>
<td>Average number of staff per service</td>
<td>11.0 ± 4.3</td>
<td>8 ± 3.6</td>
</tr>
<tr>
<td>Total number of full-time staff</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>Total number of part-time staff</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Total number of CE staff</td>
<td>34</td>
<td>25</td>
</tr>
<tr>
<td>Total number of staff with level 4</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Total number of staff with level 5</td>
<td>50</td>
<td>48</td>
</tr>
<tr>
<td>Total number of staff with level 6</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Total number of staff with level 7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total number of staff with level 8</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Total number of staff with UG degree</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total number of staff with PG degree</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total number staff with no qualification</td>
<td>19</td>
<td>14</td>
</tr>
</tbody>
</table>

†the additional need was diagnosed by a professional
ECERS Baseline v Mid-test

The chart compares the baseline and mid-test scores across various categories:
- Space & Furnishings
- Personal Care Routines
- Language & Reasoning
- Activities
- Interactions
- Program Structure
- Parents & Staff

Significant changes are indicated by asterisks (*) on the graph.
ECERS Change Score

- Space & Furnishings: 1.20
- Personal Care Routines: 0.90
- Language & Reasoning: 0.60
- Activities: 0.70
- Interactions: 1.10
- Program Structure: 0.70
- Parents & Staff: 0.80

(Change score)
## ECERS Results

<table>
<thead>
<tr>
<th>ECERS subscale</th>
<th>Baseline</th>
<th>Mid-test</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space &amp; Furnishings</td>
<td>3.66 (.35)</td>
<td>4.89 (.40)</td>
<td>.000***</td>
</tr>
<tr>
<td>Personal Care Routines</td>
<td>4.05 (.50)</td>
<td>4.98 (.47)</td>
<td>.002**</td>
</tr>
<tr>
<td>Language &amp; Reasoning</td>
<td>3.94 (.53)</td>
<td>4.23 (.75)</td>
<td>.087</td>
</tr>
<tr>
<td>Activities</td>
<td>3.54 (.47)</td>
<td>4.33 (.57)</td>
<td>.042*</td>
</tr>
<tr>
<td>Interactions</td>
<td>3.15 (.49)</td>
<td>4.25 (.85)</td>
<td>.006**</td>
</tr>
<tr>
<td>Program Structure</td>
<td>4.15 (.80)</td>
<td>4.78 (.74)</td>
<td>.092</td>
</tr>
<tr>
<td>Parents &amp; Staff</td>
<td>4.00 (.55)</td>
<td>4.86 (.52)</td>
<td>.025*</td>
</tr>
</tbody>
</table>

Significant effects are indicated by asterisks: * $P \leq .05$, **$P \leq .01$, ***$P \leq .001$
ITERS Baseline v Mid-test

Bar chart comparing Baseline and Midtest for various categories:

- Space & Furnishings
- Personal Care Routines
- Listening & Talking
- Activities
- Interactions
- Program Structure
- Parents & Staff

Significant differences are indicated by asterisks (*) on the chart.
ITERS Change Score

- Space & Furnishings
- Personal Care Routines
- Listening & Talking
- Activities
- Interactions
- Program Structure
- Parents & Staff

Change score
## ITERS Results

<table>
<thead>
<tr>
<th>ITERS subscale</th>
<th>Baseline</th>
<th>Mid-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space &amp; Furnishings</td>
<td>3.67 (.12)</td>
<td>5.00 (.52)</td>
<td>.050*</td>
</tr>
<tr>
<td>Personal Care Routines</td>
<td>3.96 (.50)</td>
<td>4.92 (.45)</td>
<td>.004**</td>
</tr>
<tr>
<td>Listening &amp; Talking</td>
<td><strong>3.22 (.84)</strong></td>
<td><strong>3.89 (.76)</strong></td>
<td>.075</td>
</tr>
<tr>
<td>Activities</td>
<td>3.20 (.52)</td>
<td>4.22 (.56)</td>
<td>.012*</td>
</tr>
<tr>
<td>Interactions</td>
<td>3.00 (.25)</td>
<td>4.42 (.38)</td>
<td>.023*</td>
</tr>
<tr>
<td>Program Structure</td>
<td>3.36 (.63)</td>
<td>4.58 (.72)</td>
<td>.032*</td>
</tr>
<tr>
<td>Parents &amp; Staff</td>
<td>3.90 (1.05)</td>
<td>4.71 (.89)</td>
<td>.013*</td>
</tr>
</tbody>
</table>

Significant effects are indicated by asterisks: * P ≤ .05, **P ≤ .01, ***P ≤ .001
A multi-layered approach can positively impact quality

However…

- Time is important to build relationships
- Time is important to layer in changes
- Time is important to allow adoption of changes
- Time is important to sustain changes
Acknowledgements

• The project consortium & steering group
• Children and families
• Centre staff
• The project Chair - Ruth Shortall
• Intervention expert group
• Boards of management
• NUI Maynooth (research advisors)
See us elsewhere at the conference!

Thursday 17th Session 2E @11.00
  ◦ Conceptualising the role of the quality mentor

Friday 18th Poster session @10.45 & 13.15

Saturday 19th Poster session @ 11.00 & 13.45
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