NWT JK/K Play-based In-Service and Training
Yellowknife, May 16-19, 2017

Presenter: Kerry McCuaig,
Atkinson Centre, Ontario Institute for Studies in Education, University of Toronto
TODAY’S PRESENTATION

• Why early education
• Factors influencing early development and the role of early education
• Why public education and not daycare
• Research on full day kindergarten/pre-k
• What other Canadian jurisdictions are doing
Sensitive periods in early brain development

- Binocular vision
- Central auditory system
- Habitual ways of responding
- Language
- Emotional control
- Symbol
- Peer social skills
- Relative quantity

FACTORS EFFECTING LITERACY, NUMERACY AGE 11

Sylva K, Melhuish E, Sammons Pm Siraj–Blatchford, Taggart B
THE DOSE EFFECT: TIME + PROGRAM QUALITY

Developmental advantage in months

Low quality
Average
High quality

Pre-K attendance
Blue: 1-2 years
Gray: 2-3 years

Sylva (2010)
PRESCHOOL PARTICIPATION AND STUDENT PERFORMANCE AT 15

OECD (2016). Program for International Student Assessment Database
FACTORS INFLUENCING ECE QUALITY

- Teacher-child interactions
- Teacher qualifications
- Child: staff ratios
- Regular attendance
- Child centred curriculum with learning goals
- Parental involvement and attitudes
- Resourced & supported learning environment

OECD, 2012
Educators are the heart of ECEC

Qualified educators have post secondary level training in early childhood development and pedagogy. They are learning guides – the coaches who encourage, make suggestions, and model communication and cooperation. They keep children safe while facilitating opportunities for them to explore and test their place in the world. They are the researchers who help further the knowledge base about how children learn.
### Grade 3 Test Scores by Pre-School Teacher Qualifications (Mean)

<table>
<thead>
<tr>
<th></th>
<th>No preschool</th>
<th>Certificate-qualified teacher</th>
<th>Diploma-qualified teacher</th>
<th>Degree-qualified teacher (ECT)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numeracy</strong></td>
<td>396</td>
<td>410</td>
<td>429</td>
<td>422</td>
</tr>
<tr>
<td><strong>Reading</strong></td>
<td>398</td>
<td>402</td>
<td>436</td>
<td>429</td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td>408</td>
<td>416</td>
<td>431</td>
<td>431</td>
</tr>
</tbody>
</table>

# THE POLICY STARTING POINT - CHILD CARE OR EDUCATION – AND ITS IMPACT

<table>
<thead>
<tr>
<th>Child Care</th>
<th>Early Childhood Education and Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td><strong>Purpose</strong></td>
</tr>
<tr>
<td>Labour force participation</td>
<td>School readiness</td>
</tr>
<tr>
<td>Poverty reduction</td>
<td>Child development</td>
</tr>
<tr>
<td>Reduce social assistance</td>
<td>Early intervention</td>
</tr>
<tr>
<td><strong>Public policy</strong></td>
<td><strong>Public policy</strong></td>
</tr>
<tr>
<td>Low levels of public funding</td>
<td>More public funding</td>
</tr>
<tr>
<td>Underdeveloped infrastructure</td>
<td>Developed infrastructure</td>
</tr>
<tr>
<td>Regulatory oversight</td>
<td>School boards/parent councils</td>
</tr>
<tr>
<td><strong>Service delivery</strong></td>
<td><strong>Service delivery</strong></td>
</tr>
<tr>
<td>Targeted/fee for service/low levels of participation</td>
<td>Universal access</td>
</tr>
<tr>
<td>Mix of providers/locations</td>
<td>Public provision</td>
</tr>
<tr>
<td>Various program approaches</td>
<td>Defined program</td>
</tr>
<tr>
<td>Low levels of qualified educators</td>
<td>Qualified educators</td>
</tr>
<tr>
<td>Accountability limited to licensing</td>
<td>Accountability mechanisms</td>
</tr>
</tbody>
</table>

Akbari et al, 2014
WHY OFFER PRE-K THROUGH EDUCATION?

- Universal reach
- Developed infrastructure
- Trained staff
- Builds early education as the norm for all children
- Supports parent perceptions of young children as learners
- Drives changes in elementary education to build on children’s advanced learning
- Education enjoys public confidence
SCHOOL DELIVERY PRE-K ASSOCIATED WITH MORE EQUITABLE ACCESS

- Attendance rates in voluntary K/Pre-k 97-99%. (Akbari et al, 2014).
- Greater participation in Pre-k by children of new Canadians. (Ibid).
- The majority of ECEC for 3–5 years and the majority of out of school programs are delivered by schools. (Ibid).
- 21% of children whose mother have high school or less attend regulated child care compared to 52% of those whose mother have graduate degrees (Akbari, et al, 2014).
- In Quebec, low SES children are less likely to access low-cost child care than high SES children (McCain, et al, 2011).

School-offered ECE programs have significantly higher participation rates (OECD, 2011).
GREATER LANGUAGE GAINS ASSOCIATED WITH FULL DAY PRE-K

• 4 & 5 year olds attending FDK in Ontario showed language gains into Grade 3, compared to children who attended half day pre-K and child care (Pelletier, 2016)

• Children attending FD Pre-K showed greater gains on four out of six measures of school readiness compared to children attending half day programs (JAMA, 2014)

• Minority francophone children attending FD Pre-k in Ontario showed greater language and writing gains than those attending part day Pre-K. (Herry et al, 2007)

• 2 years of kindergarten in French-language schools associated with improved Grade 9 math scores (Akbari, McCuaig, Jenkins, in press).
OTHER PRE-K PROGRAMS NOT ALWAYS ASSOCIATED WITH GAINS

• Children attending family and group daycare in Quebec showed no significant language gains over children who were in parental care (Quebec Institute for Statistics, 2010).

• Over half the children who attended Head Start began kindergarten without the cognitive skills needed for school success. (Heckman, 2006; U.S. Department of Education, 2013)

• Aboriginal Head Start did impact on children’s school readiness and cultural literacy. There is limited evidence of the program’s impact on parents and the broader community. (Public Health Agency Canada, 2012)
OTHER CHILD BENEFITS ASSOCIATED WITH FD PRE-K

• Less anxiety, smoother transitions to school
• More pro social behaviour
• Greater self regulation
• Better physical health
• Increased attendance and reduced chronic absenteeism compared with part day programs

Impact of preschool participation on levels of developmental vulnerability, 2012

% of children DV1+

<table>
<thead>
<tr>
<th>SEIFA Quintile</th>
<th>Most Disadvantaged (1)</th>
<th>Disadvantaged (2)</th>
<th>Moderate Disadvantaged (3)</th>
<th>Less Disadvantaged (4)</th>
<th>Least Disadvantaged (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not attend preschool</td>
<td>38.4%</td>
<td>33.6%</td>
<td>28.4%</td>
<td>27.2%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Attended preschool</td>
<td>28%</td>
<td>21.3%</td>
<td>18.8%</td>
<td>16.2%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

FAMILY BENEFITS ASSOCIATED WITH FD PRE-K

- Parents reported improved social behaviours in children and improved relationships with spouse. (Janmohamed et al, 2014)
- Reduced household stress. (Pelletier, 2014)
- Increased parent involvement in school activities. (Reynolds et al, 2014).
- Changes in families’ expectations: parents more likely to perceive their young children as learners and are more confident supporting children’s learning. (Janmohamed, 2014)
- Reduced family poverty. (Fortin, 2011)
- Breaks intergeneration cycles of disadvantage. (Cheng, 2016; Guerin, 2014)
## Pre-K Jurisdictions Canada

<table>
<thead>
<tr>
<th>Educator</th>
<th>Eligibility</th>
<th>Age</th>
<th>Duration</th>
<th>Class Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>Teacher or ECEs depending on provider</td>
<td>Selected: SES, special needs, ESL, gifted</td>
<td>2.5 years (Sept 1)</td>
<td>475 hours/yr</td>
</tr>
<tr>
<td>SK</td>
<td>Teacher</td>
<td>Selected: SES, special needs, ES</td>
<td>3 years (Dec. 31)</td>
<td>12.5 hrs/week</td>
</tr>
<tr>
<td>MB</td>
<td>Teachers or ECEs</td>
<td>SES community</td>
<td>4 years (Dec. 31)</td>
<td>12.5 hrs/week</td>
</tr>
<tr>
<td>ON</td>
<td>Teachers + ECE</td>
<td>Universal</td>
<td>4 years (Dec. 31)</td>
<td>School day</td>
</tr>
<tr>
<td>QC</td>
<td>Teachers</td>
<td>SES community</td>
<td>4 years (Dec. 31)</td>
<td>School day</td>
</tr>
<tr>
<td>NS</td>
<td>ECEs (2)</td>
<td>Universal (4 yrs)</td>
<td>4 years (Dec. 31)</td>
<td>Primary day</td>
</tr>
<tr>
<td>NT</td>
<td>Teachers</td>
<td>Universal</td>
<td>4 years (Dec. 31)</td>
<td>School day</td>
</tr>
</tbody>
</table>
SELECTED REFERENCES

THANK YOU

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