A Meta-Perspective on the Evaluation of Full-Day Kindergarten during the First Two Years of Implementation

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Informed by:
Ministry of Education – Government of Ontario

The Social Program Evaluation Group – Queen's University

The Offord Centre for Child Studies – McMaster University

Full-Day Kindergarten (FDK) Milestones

Full-day kindergarten for all 4 and 5 year olds in Ontario is being phased in over a 5-year period (2010-2014)

September 2010 – 35,000 four- and five year olds participated in the program (15% of Ontario's total kindergarten population).

September 2011 – 50,000 four- and five year olds participated in the program (20% of Ontario's total kindergarten population).

September 2012 – 122,000 four- and five year olds participated in the program (49% of Ontario's total kindergarten population.

September 2013 – 184,000 four- and five year olds participated in the program (75% of Ontario's total kindergarten population).

September 2014 – Full-day kindergarten will be fully implemented and available to all of Ontario's four- and five year olds. Estimated that 265,000 children will be enrolled.

Program Goals of the FDK

- To establish a strong foundation for the early years by providing an integrated day of learning
- To provide a play-based learning environment
- To help children make a smoother transition to Grade 1
- To improve children's prospects for success in school and in their lives beyond school

Evaluation of FDK

Implementation of FDK in 2010 was accompanied by the launch of a 2-year evaluation strategy focusing on 2 objectives:

1- To identify early indicators of effective practices related to the impact of FDK

2- To inform program delivery moving forward through to full implementation

Evaluation is a collaborative partnership:

The Social Program Evaluation Group – Queen's University

The Offord Centre for Child Studies – McMaster University

The Ministry of Education – Government of Ontario

Purposes of the Reports

- There are three different reports all with different purposes
- Queen's – Observational analysis of the implementation challenges during the first year of the FDK roll out – to help identify obstacles/challenges. Also looked at EDI scores but only during the first year of implementation
- McMaster's – Descriptive analysis (EDI) across year 1, year 2 and a cross-sectional design for both years.
- The Ministry evaluated child outcome using the EDI and had longitudinal data on 690 participants

METHOD

125 schools participated from 18 school boards for the evaluation

- 42 began offering FDK in 2010-2011 **(2-YR FDK)**
- 41 began offering FDK in 2011-2012 **(1-YR FDK)**
- 42 did not offer FDK during the two year evaluation period **(0-FDK)**

16 (of 125) case studies were selected

Due to the constraints in the way FDK was implemented, a random selection methodology was not possible.

School Selection

All schools in the Phase 1 of FDK were identified and sorted by their Ministry of Education (EDU) region.

- The address, size, and percentage of families in the school neighbourhood with income below national average were noted.
- Schools from the later Phases (i.e., not 1 or 2) were identified.
- From these possible "control" schools, potential matches to Phase 1 schools were identified based on four criteria:
  - same board type and language of instruction (Catholic/Public; English/French)
  - within no more than 20 km from each other
  - same income category
  - similar school size

- The actual selection of the boards was made collaboratively between EDU and OCCS, based on recent EDI data collection status

MEASURES

The following measures were used across all the 125 participating schools

Measure	Purpose
Early Developmental Instrument (EDI) (collected in the spring of 2011, 2012)	The EDI measures developmental domains: physical, socio-emotional, cognition, language, communication skills and general knowledge
Information available through the Ontario Student Information System (OnSIS)	Linkages between OnSIS variables (e.g. FDK, non-FDK, special needs) and the EDI were established, providing the Ministry with a FDK cohort

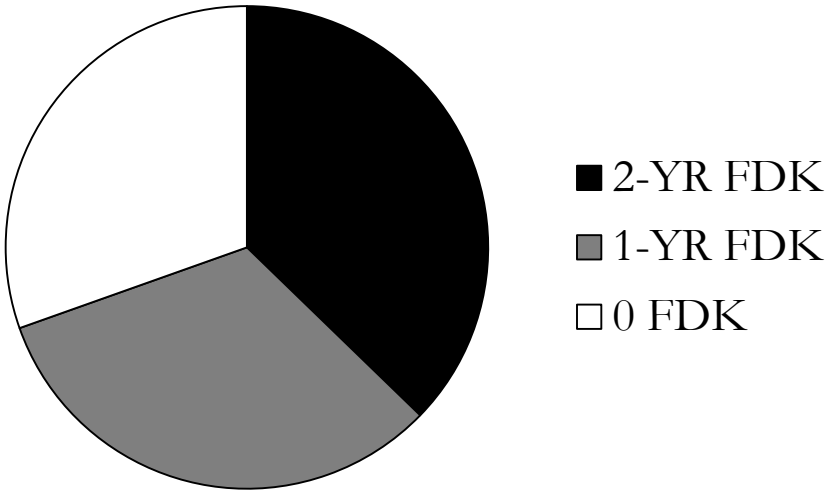
EDI Data Collection

Year 1 - EDI data collection from 4008 children (JK = 2424; SK = 1584)
Year 2 - EDI data collection from 4570 children (JK = 2237; SK = 2333)

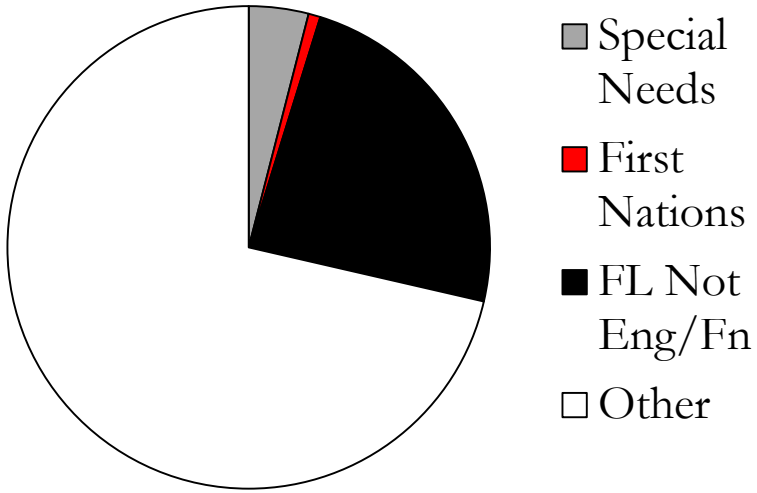
Of these participants, longitudinal data for the EDI (data from both JK and SK) were available for 690 children

43% participation rate for EDI (with consent)
17% KPS return rate with strong bias

Longitudinal Data (N=690)



Distribution (N=690)



School Selection – 16 Case Studies

Representation from each of the Ministry's six regions (London, Barrie, Sudbury, Thunder Bay, Toronto, and Ottawa),
Representation from both the Francophone and English School Boards
Implementation of FDK in stages

MEASURES

Qualitative data was secured using the below measures for the 16 case studies

Measure	Purpose
Classroom activity with children	Children participated in a classroom activity geared to elicit student perspectives on kindergarten and its role in their lives.
Interviews with teachers, ECEs and principals	In year 1, semi-structured interviews were used to elicit the perspective of educators and administrators on FDK impact. In year 2, information was secured through site visits and through online surveys
Focus groups with parents	Parent volunteers provided their perspectives on the impact of FDK in focus group formats
Telephone interviews with community education partners	Through semi-structured interviews

Sources of information for the 16 case studies included the following:

- Interviews with 35 school administrators
- Interviews with 91 educators
- Surveys from 42 educators (year 1 only)
- Online surveys from 125 educators (year 2 only)
- Review of 500+ classroom documents
- Visits to 48 kindergarten classrooms
- 60 classroom observations
- Responses from 300+ kindergarten children
- Review of 1000+ photos
- Interviews with 80 parents
- Interviews with 19 community partners

Results

Findings from the EDI

Children were classified:

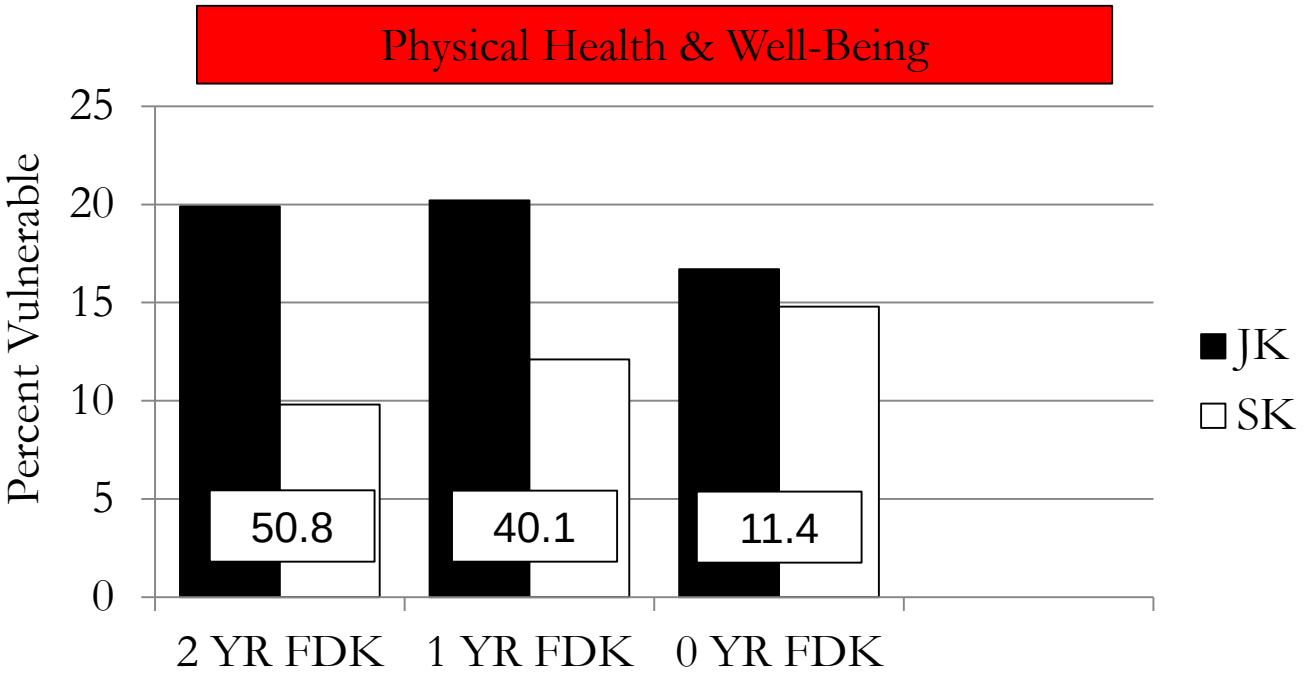
1- <10 percentile classified as vulnerable on each of the domains

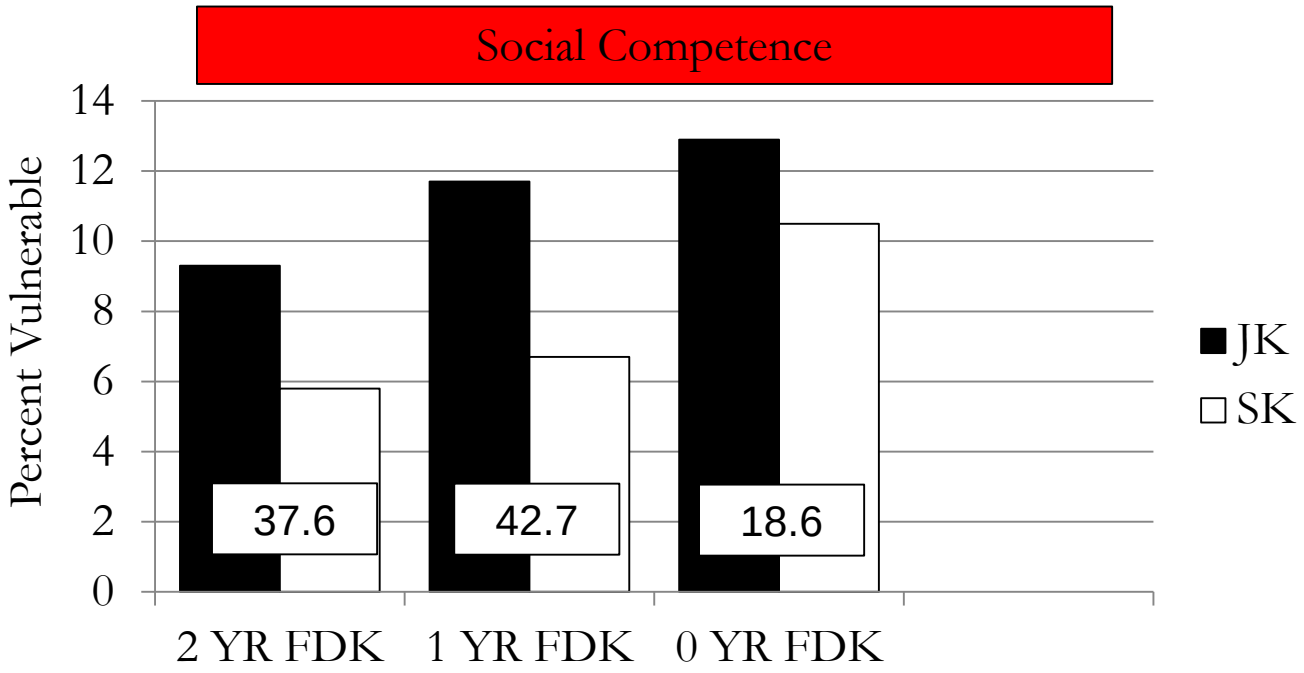
2- On at least 1 or more/On at least 2 or more EDI domains

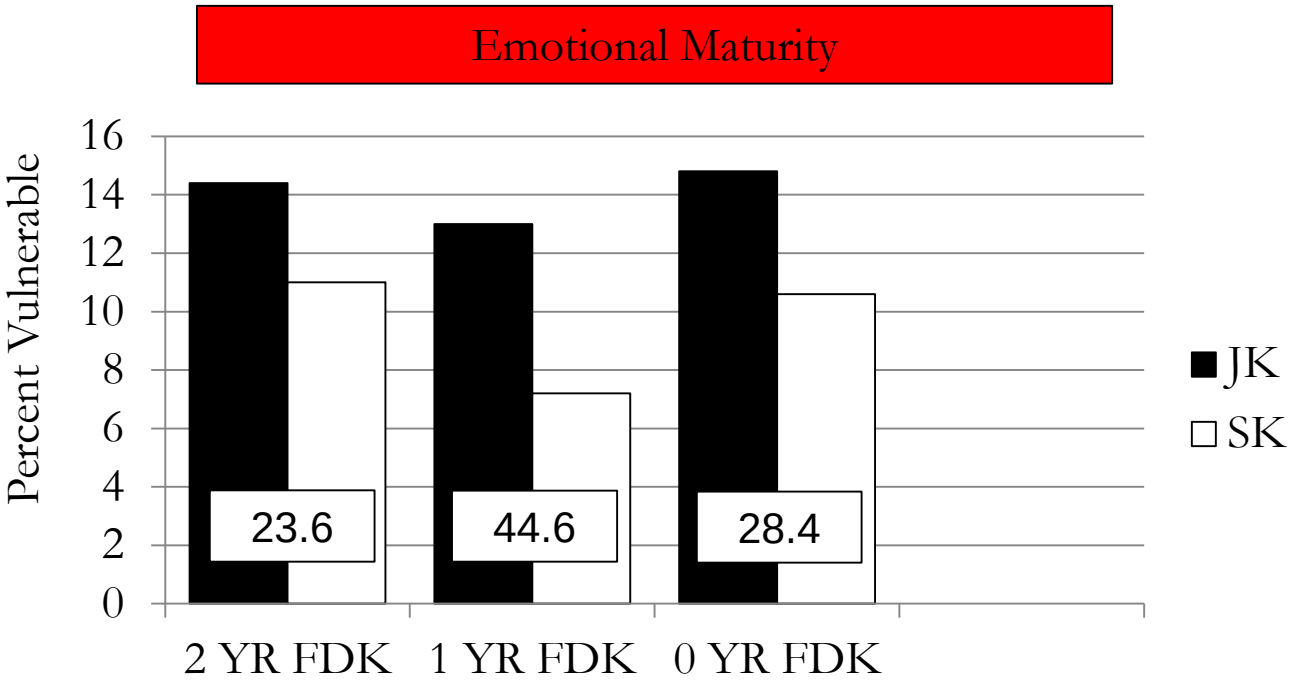
3- Frequency with which children were identified as scoring below 10^{th} percentile

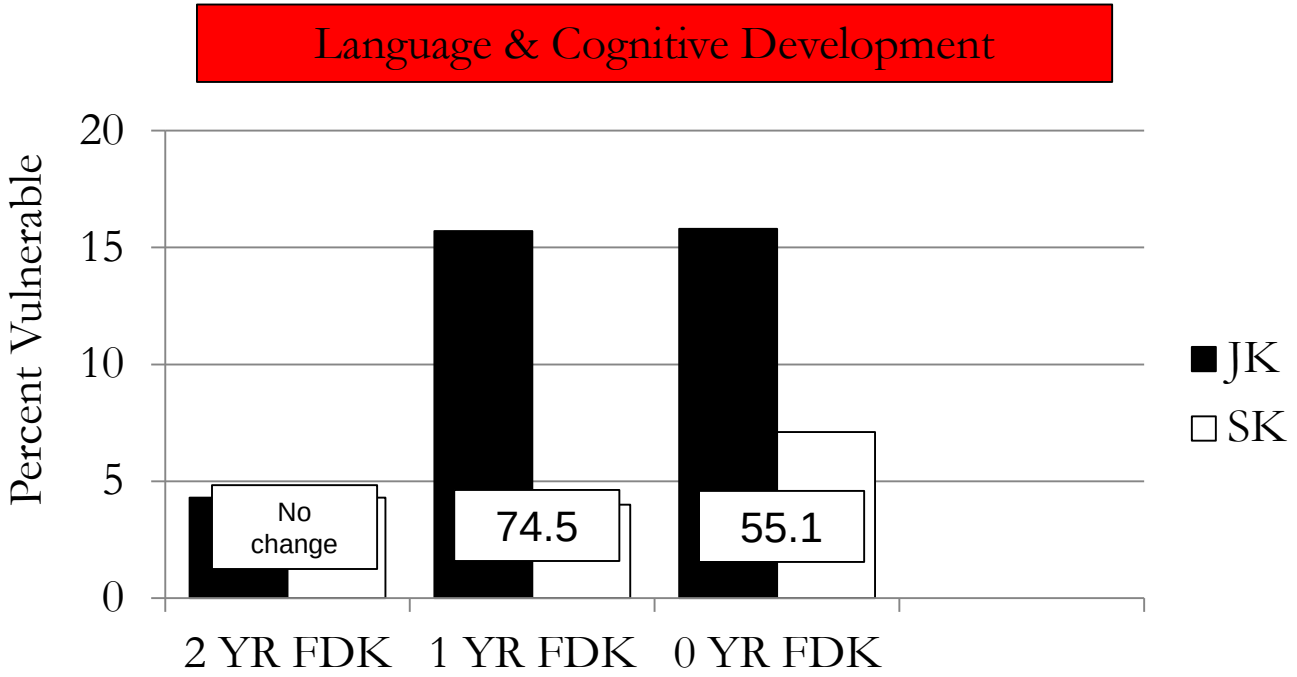
4- Percent difference between JK and SK

5- Percent change for each of the 3 groups

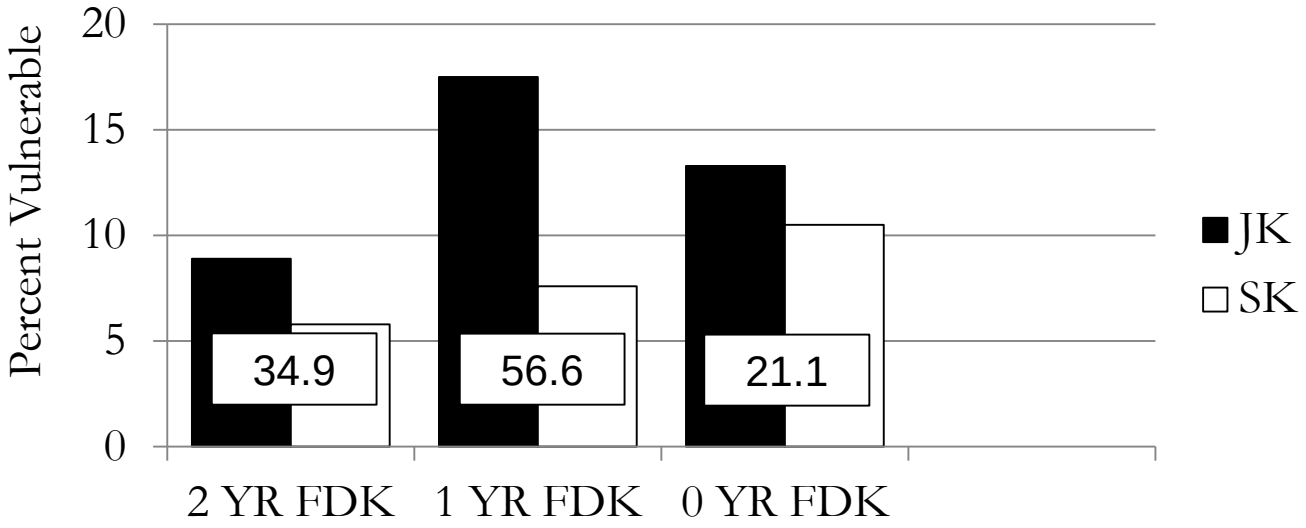

Physical Health & Well-Being
Percent Vulnerable
25
20
15
10
5
0
50.8
40.1
11.4
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK

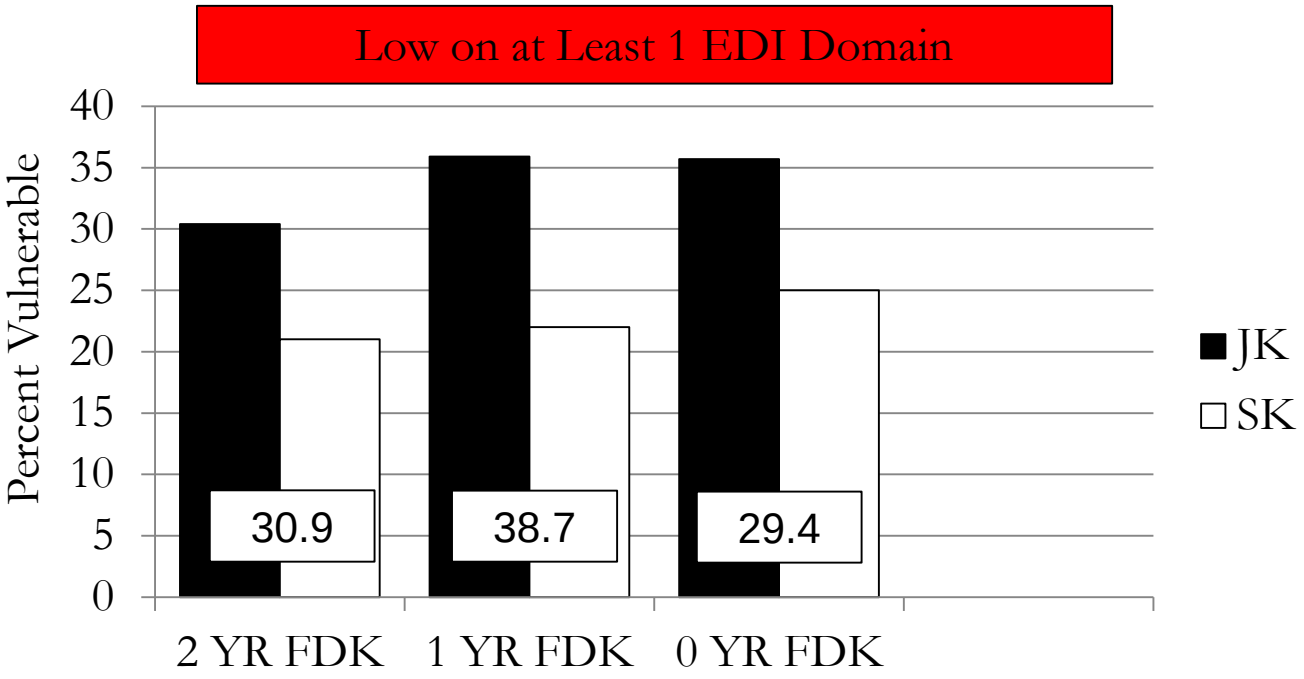

Social Competence
Percent Vulnerable
14
12
10
8
6
4
2
0
37.6
42.7
18.6
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK

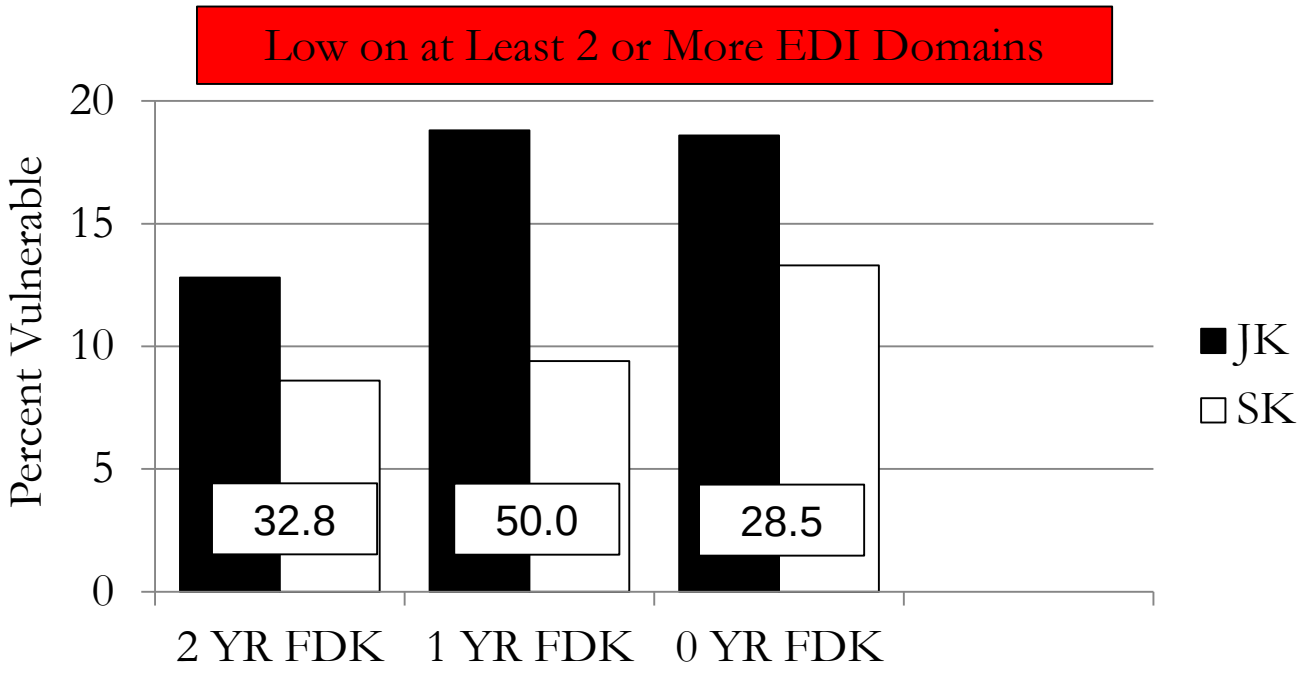

Emotional Maturity
Percent Vulnerable
16
14
12
10
8
6
4
2
0
23.6
44.6
28.4
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK


Language & Cognitive Development
Percent Vulnerable
20
15
10
5
0
No change
74.5
55.1
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK

Communication Skills & General Knowledge

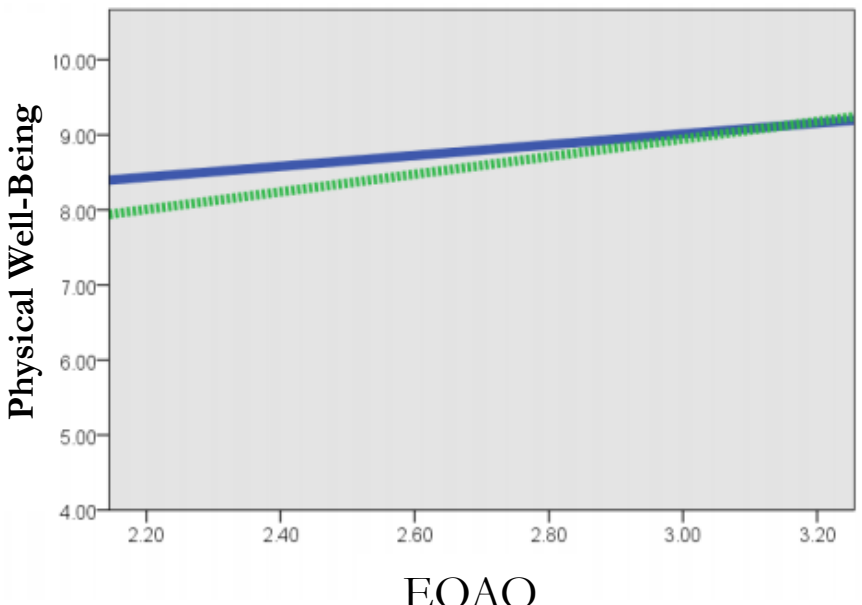



Low on at Least 1 EDI Domain
Percent Vulnerable
40
35
30
25
20
15
10
5
0
30.9
38.7
29.4
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK

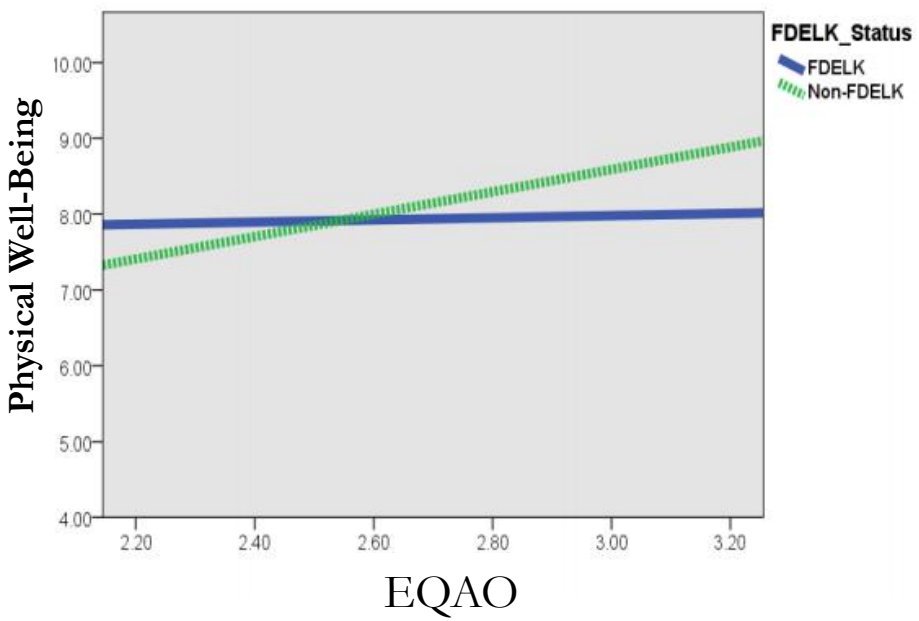

Low on at Least 2 or More EDI Domains
Percent Vulnerable
20
15
10
5
0
32.8
50.0
28.5
2 YR FDK
1 YR FDK
0 YR FDK
JK
SK

Physical Health & Well-Being
Year 1 of Implementation

SK



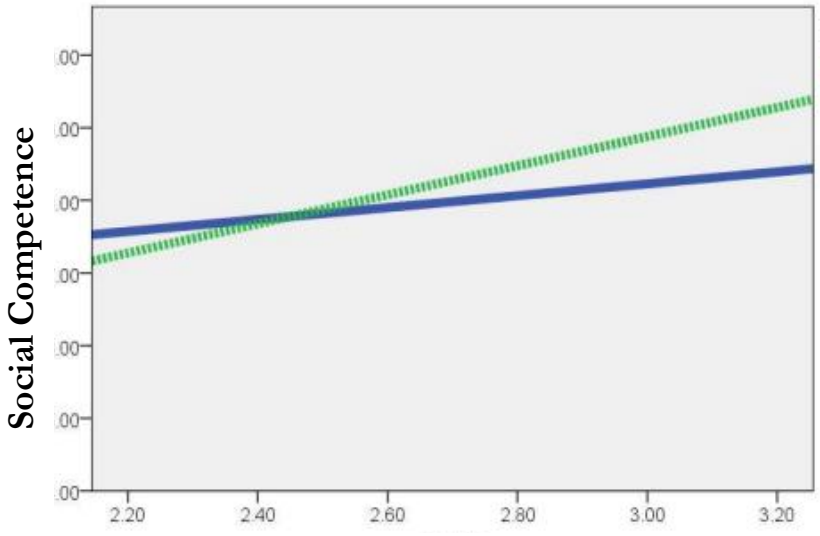
JK



Example of how FDK may be closing the educational gap for students in high need schools

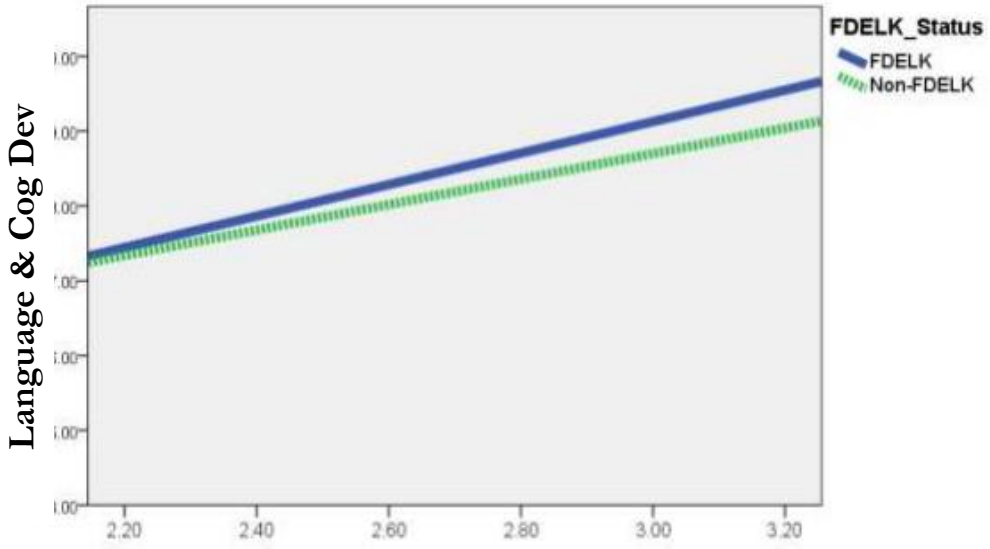
Social Competence & Language/Cog Development (in girls) - JK

In higher need schools FDK children perform better – In lower need schools they perform worse



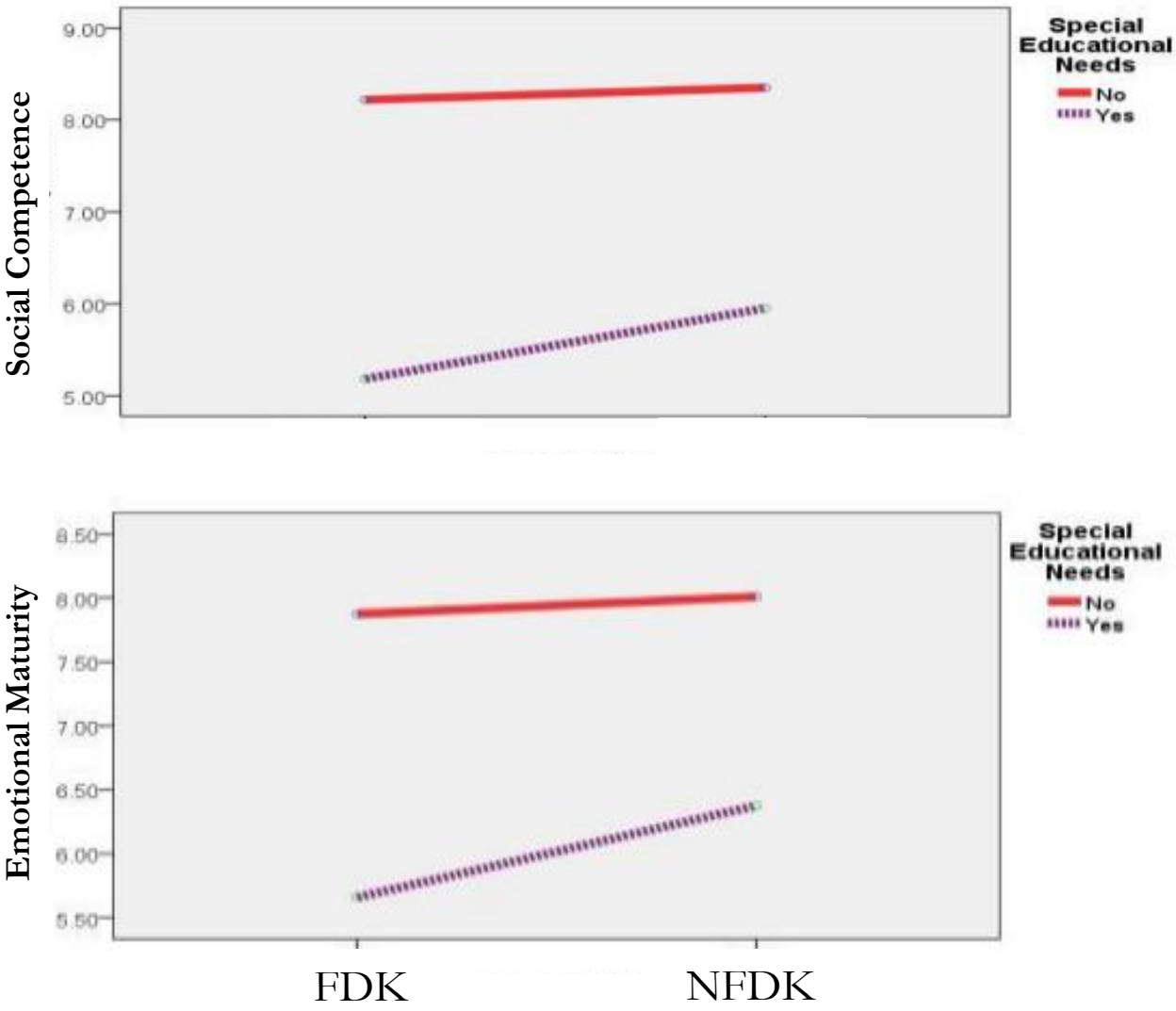
EQAO

In lower need schools girls perform better from FDK than higher need schools – this pattern is opposite in boys



EQAO

Special Needs Children



Findings from the Case Studies

Compiled by the Social Program Evaluation Group at Queen's University

Organized around several key themes:

1-Educator Teams
2-Professional Development
3-Play-based Learning & Pedagogy
4-Assessment and Evaluation
5-Physical Environment
6-Emotional Climate
7-Family Partnerships
8-Community Partnerships
9-Student Progress and Self-Regulation

Very few statistically significant differences were found between the responses of teachers and ECEs

Educator Teams

Team teaching was found to be foreign and unknown

Found to not be fully leveraging the collective expertise of the 2 professions (teachers and ECEs)

Commented on the need for further role and responsibility definition

Parents echoed these concerns

Professional Development

Funding was provided to release school board staff to attend sessions, to plan at the school level and to visit other FDK programs

Summer institutes were available to teams

Ministry data indicates that 90% of eligible boards benefited from this professional development opportunity

However case studies revealed only 50% had attended

* mostly teachers & not ECEs attended
* supply list of qualified ECEs is a growing concern

Play-Based Learning & Pedagogy

Strong evidence that many FDK educators are moving towards PBL as envisioned in *The Full-Day Early Learning – Kindergarten Program*

Considerable variation in implementation of *The Full-Day Early Learning – Kindergarten Program* across the province

Still a large number of administrators, parents and teachers who continue to favour, push for, and demand more academic teacher directed approaches (literacy and numeracy)

Teachers having a hard time shifting to play-based learning

Having problems meeting the needs of students who only attend half day

Program fidelity

Assessment & Evaluation

Strong evidence that FDK educators are becoming increasingly more knowledgeable of and creative in their assessment of children in the classroom

Currently specific guidelines for the assessment of children in relation to learning objectives of FDK have not been established at the provincial level

Physical Environment

High enrolment in FDK identified as an area of concern for educators, administrators and parents – more problematic in urban areas

The Ministry has provided some support to address space shortage (i.e. capital funding, consultation)

Classroom space alone does not seem to provide a barrier to favourable child outcomes

Emotional Climate

Issues addressed in previous sections (educator teams, space etc) – Educators need to be more appropriately supportive of each other

However, classrooms are described as happy, cooperative and learning focused

Supported by EDI

Family Partnership

Providing parents with employment and continuing education opportunities that would otherwise not be possible

Advanced with sufficient before- and after-school programs

Ontario parents are supportive of FDK and have high expectations for early learning (class size, preparation for primary school, safety)

Community Partnerships

FDK schools becoming hubs for community engagement

Community view the FDK implementation as presenting opportunities for a more integrated service approach

Student Progress & Self-Regulation

Grade 1 teachers are also reporting that FDK children's proficiency in grade 1 is better than those from the past years.

Summary

This evaluation of FDK during the first 2 years of implementation provides a preliminary understanding of program delivery and helps inform educators and policy makers

Accurate knowledge transfer and mobilization are central to successful implementation

The results suggest that there are early indicators of effective practice as measured by the EDI.

Children in FDK demonstrate least vulnerability across most domains

FDK improves school readiness especially in schools with high needs (as indexed by EQAO)

Children with special needs perform better in NFDK -
English-speaking schools benefit more than French-speaking schools

Limitations

1- Sample bias

8600 eligible to participate – 46% participation rate,
17% KPS participation rate (high needs families are underrepresented).
The more benefits to higher need schools is blurred
Schools were not randomly selected / teachers (EDI source) were not blind

2- EDI sole measure of school readiness

EDI may be insensitive to changes produced by FDK/NFDK
FDK is a major pedagogical change (play-based) and not clear if EDI is sensitive to this new curriculum

3-Difference between English/French

French system has had full day for many years – measuring change in curriculum
English measure change in curriculum and to an FDK program

Limitations

4- On several measures NFDK were associated with more positive outcomes especially within low needs school

Emotional Maturity (curriculum based changes?)

These limitations along with the available data show mixed results concerning FDK effectiveness and limits the confidence of the results