

Full-Day Kindergarten Research



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Pelletier, J., & Corter, J. (2018, in press). A Longitudinal Comparison of Learning Outcomes in Full-Day and Half-Day Kindergarten. *The Journal of Educational Research*. doi: 10.1080/00220671.2018.1486280

Pelletier, J. (2017). Children gain learning boost from two-year, full-day kindergarten. *The Conversation Canada*. <http://theconversation.com/children-gain-learning-boost-from-two-year-full-day-kindergarten-79549>

Background to research

- ❖ Toronto First Duty demonstration project
 - 5 sites in Toronto
 - kindergarten, child care, parenting supports, community services
- ❖ Ontario Best Start
 - 5 integrated sites & 5 comparison sites in Region of Peel
- ❖ *With our Best Future in Mind* (report to Premier)
 - Play-based full-day kindergarten & care

Corter, C., Janmohamed, Z., & Pelletier, J. (Eds). (2012). *Toronto First Duty Phase 3 Report*. Toronto, ON. Available online.

http://www.oise.utoronto.ca/atkinson/About_Us/What_We_Do/Toronto_First_Duty/index.html

Pelletier, J. (2012). New directions in integrated early childhood services in school-as-hub models: Lessons from Toronto First Duty and Peel Best Start. In N. Howe and L. Prochner (Eds.), *New Directions in Early Childhood Care and Education in Canada* (pp. 367-396). Toronto, ON: University of Toronto Press.

Research objectives

- ❖ To describe the implementation and impact of FDK on
 - Staff teams implementing the play-base program (ECEs & K teachers + administrative & support personnel)
 - Parents (daily hassles, parents' views of their children's progress, employment)
 - ➔ Children (tell their story, measure growth in learning over time)

Design of study

- ❖ Full-day & half-day kindergarten – phased in over 5 years natural experiment
- ❖ Longitudinal: JK-Gr 2 (+ Gr 3 provincial tests scores)
- ❖ Continuing to Gr 6
- ❖ Mixed methods (quantitative and qualitative)
- ❖ Measuring success and telling the story
- ❖ Carried out in one municipality in Ontario

Number of children

- ❖ Full Day Kindergarten (9 sites) = 328
- ❖ Control Half Day Kindergarten (7 sites) = 264
- ❖ Best Start children (not included here) = 286



Demographics

Program	Gender	ELL*	M Ed*	F Ed*	Preschool Experience
Control	49% boys	61% ELL	4.74	4.69	3.87
FDK	54% boys	51% ELL	4.53	4.26	2.66

Analyses

- ❖ Main longitudinal analyses included scores from SK-Grade 2 since all children had SK
- ❖ Mixed-model repeated measures ANOVAs (controlling for child age, site, ELL, mother's education, neighbourhood SES, JK/SK)
- ❖ Included EQAO (standardized test) scores in Grade 3 for children who had finished Grade 3

Child measures



Vocabulary



Early reading

Early Number Knowledge

- ◆ Example (using red and white poker chips)
 - Place 5 red chips in front of child. "Count these chips and tell me how many there are."

Number knowledge



Puppet interview: Social & emotional understanding



Writing: Teacher has 5 little red crayons



Drawing: This is me waiting to go on the computer at daycare

Education Quality and Accountability Office



(provincial achievement tests)

+ HTKS (self-regulation)

Self-Regulation

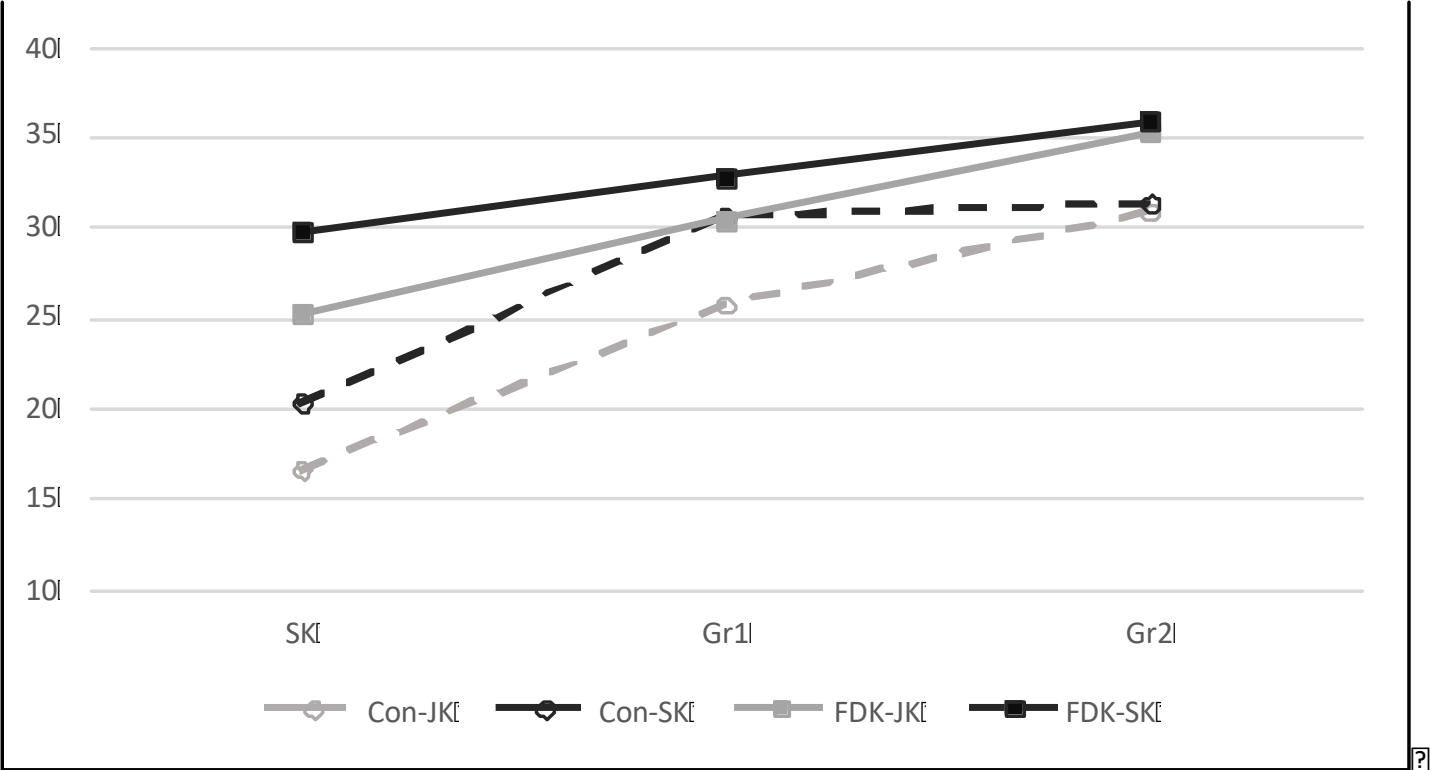


The Head Toes Shoulders Knees Task

- ❖ measure of self-regulation (McLelland & Cameron)
- ❖ ability to inhibit responses & control attention
- ❖ Part I (Head Toes) & II (Shoulders Knees added)



HTKS (behavioral self-regulation)



Self-Regulation: Observations

Continuous running records were completed during 10-minute intervals in four contexts:

- ❖ Small group
- ❖ Whole group
- ❖ Transition
- ❖ Play



Timmons, K., Pelletier, J., & Corter, C. (2015). Understanding children's self-regulation within different classroom contexts. *Early Child Development and Care*, 186(2), 249-267

Hawes, Z., Gibson, A., Mir, S., & Pelletier, J. (2012). Children's experiences in full-day programs for 4- and 5-year-olds: Play and self-regulation. In Corter, Janmohamed & Pelletier (Eds.), *Toronto First Duty Phase 3 Report*. Toronto, ON: Atkinson Centre for Society and Child Development.

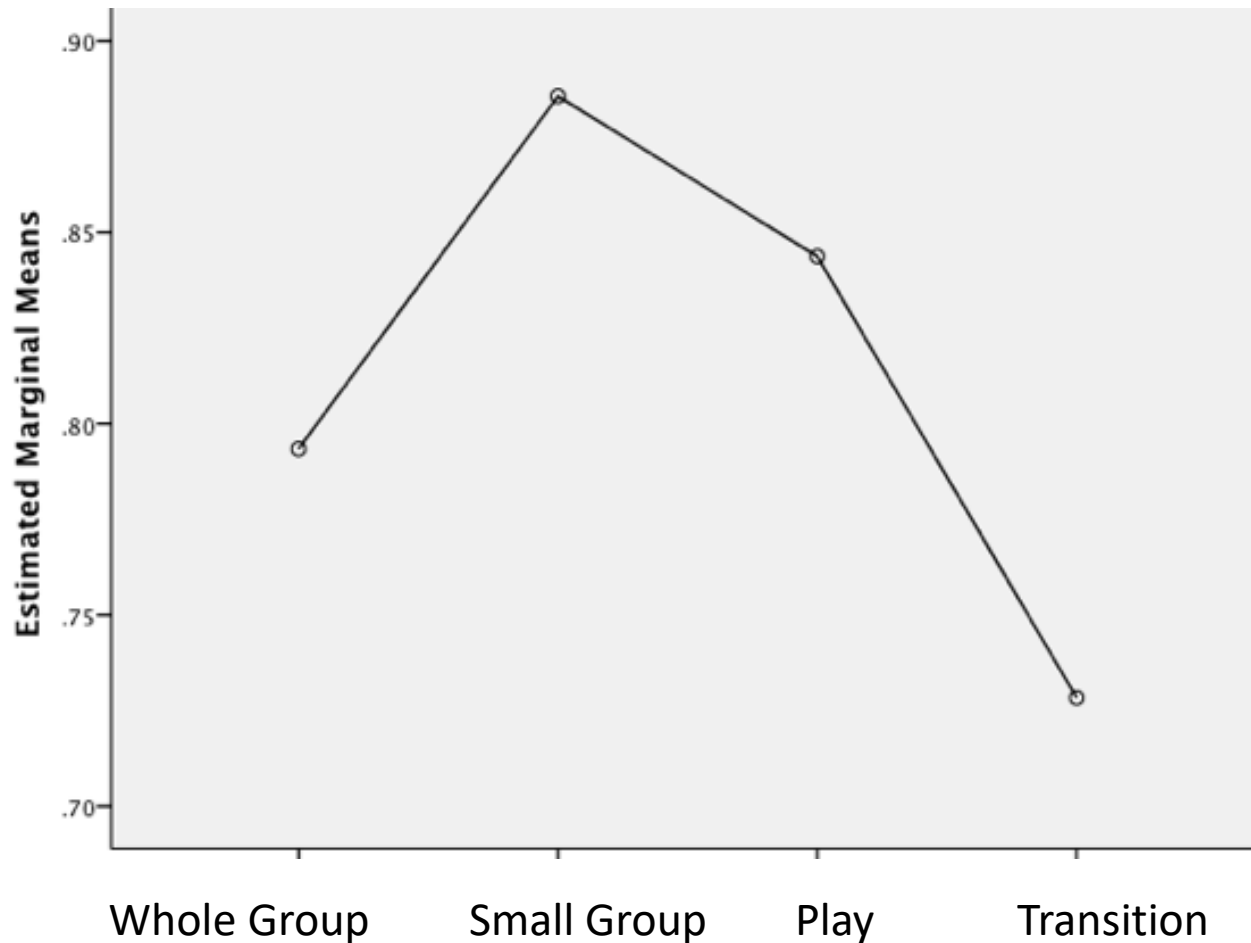
What we observed



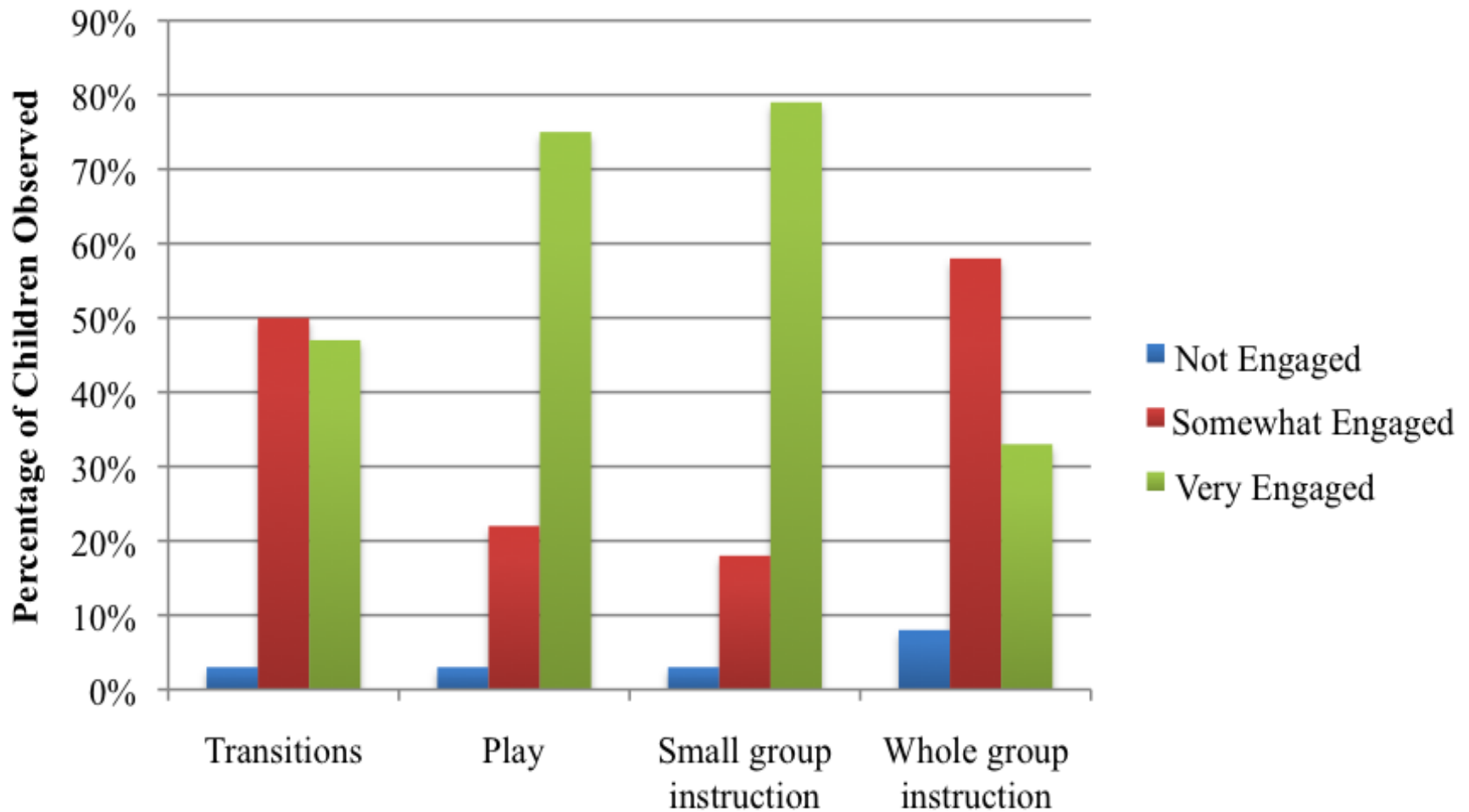
Using the Running Records, we examined:

- ❖ Responses to opportunities to self-regulate
- ❖ Engagement
- ❖ Child-child interactions: including play
- ❖ Child-educator interactions

When are kindergarten children most self-regulated?

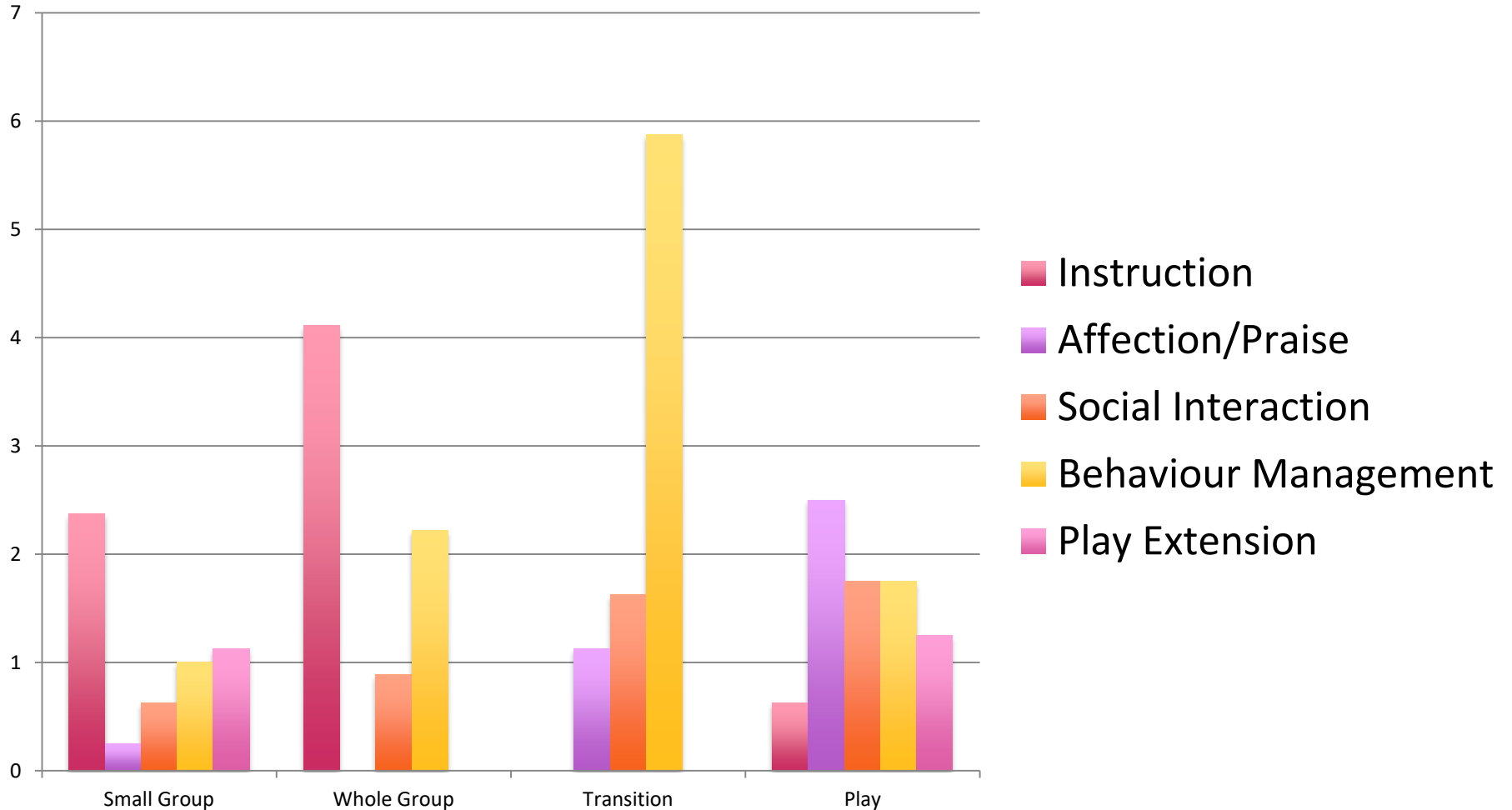


When are kindergarten children most engaged?

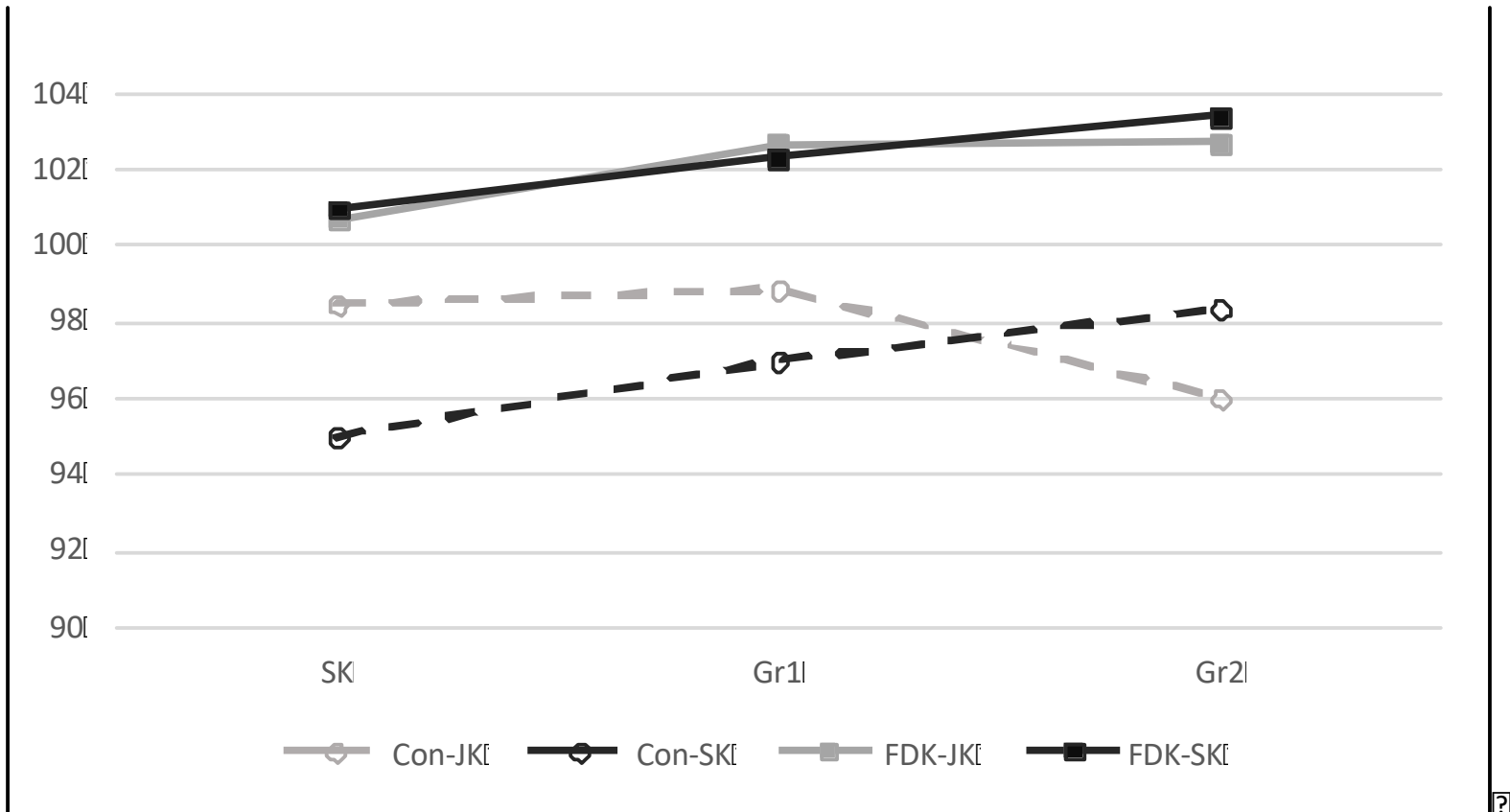


What educators do varies by context

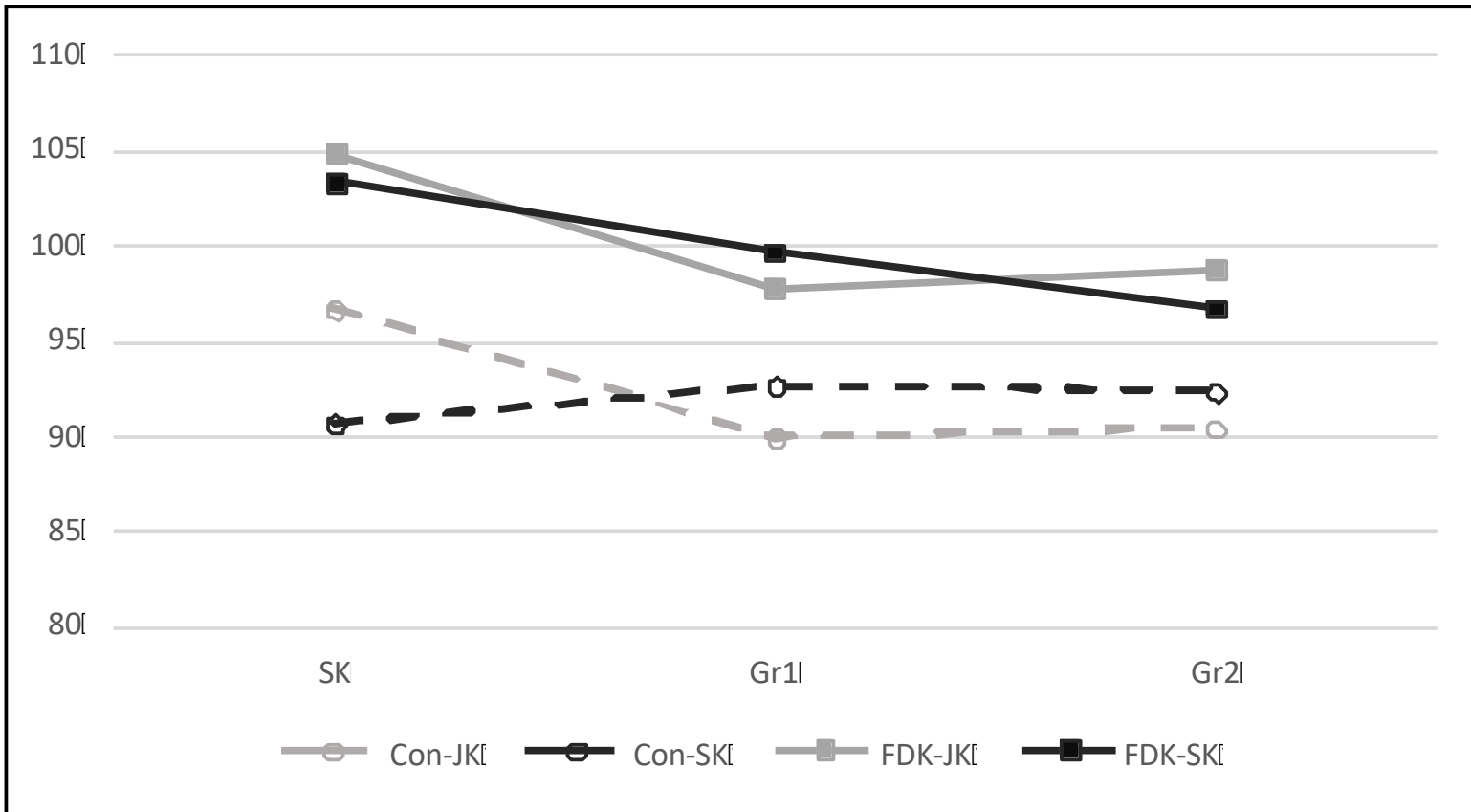
Average Frequency of Interaction Type per Context



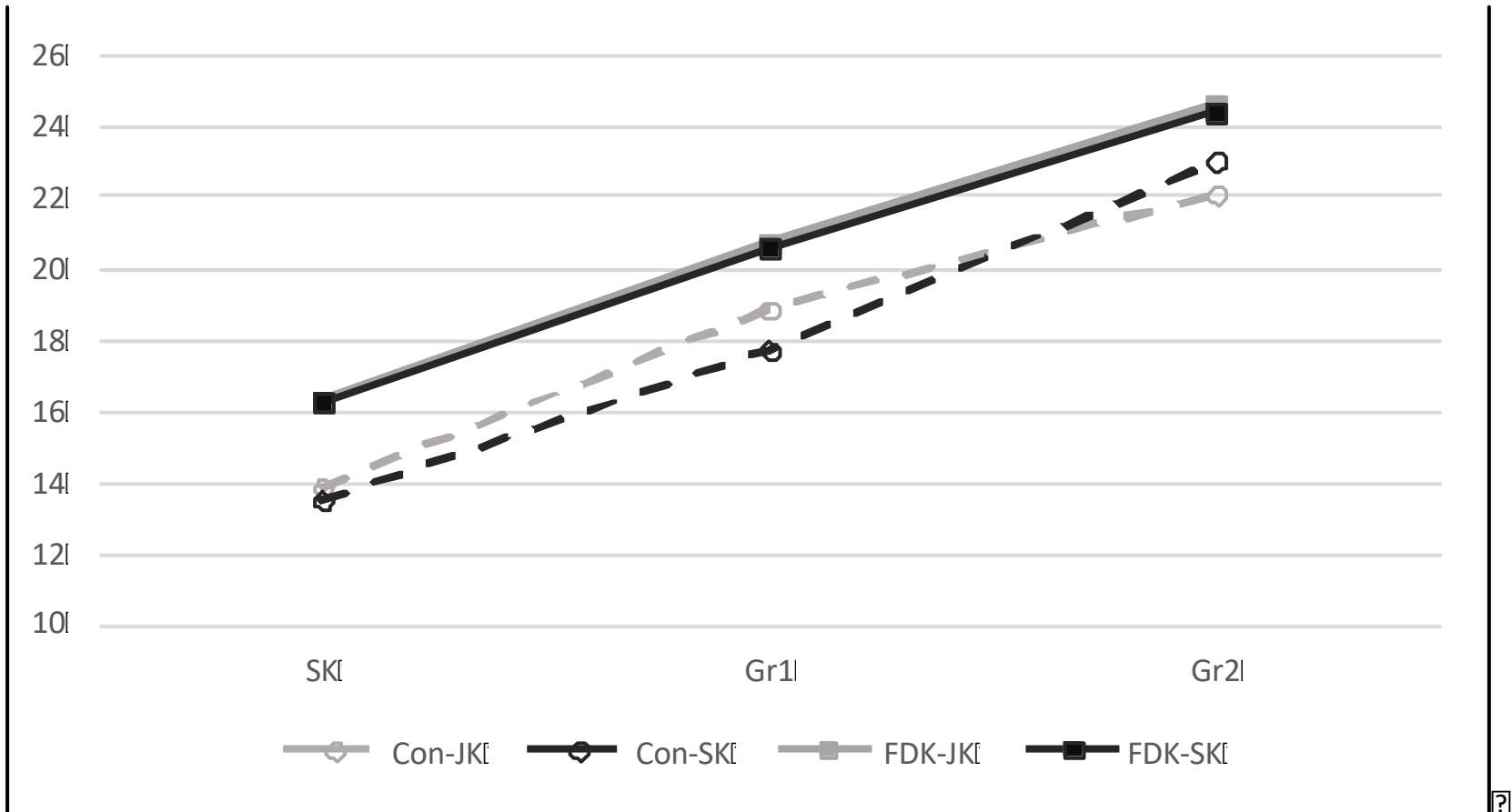
Vocabulary



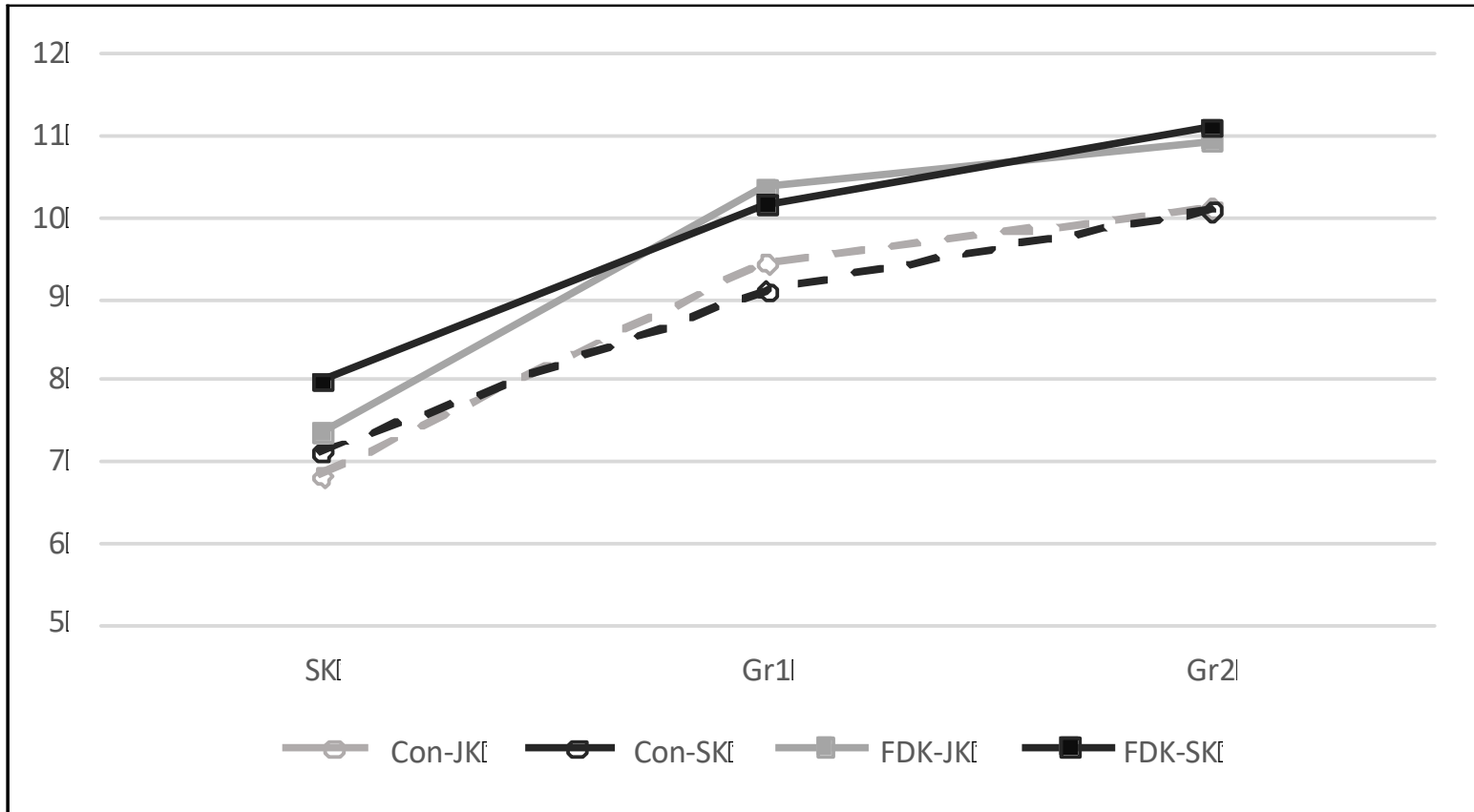
Reading



Number knowledge



Writing



EQAO (Gr 3 tests)

- ❖ 4 levels of EQAO categories
 - 1&2=below expectations
 - 3&4= meets expectations
- ❖ Predict scores in the EQAO areas of reading, writing and mathematics by program (with same controls)
- ❖ Multinomial logistic regressions
 - Long-term benefit of FDK in reading on Gr 3 tests
 - Math & writing higher but not statistically significant

Education Quality and
Accountability Office



JK effect

- ❖ Separate analyses with the JK group showed that children who began FDK in JK were significantly ahead of HDK children in self-regulation, reading, drawing complexity, and number knowledge by the end of JK

Children's voices

- ❖ Interviews
- ❖ Drawings



Child interview with finger puppets



Choose a puppet for yourself and one for me...

**Tell me about your day, from the time
you leave home until you go home**



Comparison of FDK and HDK child interviews

- ❖ All children reported play is what they like best at school
- ❖ HDK children reported “learning”, “work” were most important
- ❖ FDK children reported “play” was most important

Heagle, K., Timmons, K., Hargreaves, F., & Pelletier, J. (2016). The social kindergartener: Comparing children's perspectives of full- and half-day kindergarten. *Early Child Development and Care*, 1-2.

Drawings: Draw yourself doing something at school



Pelletier, J. (2017). Using children's drawings to understand children's experiences in the context of a new kindergarten policy in Ontario, Canada. In S. Dockett & A. MacDonald (Eds.), *Just do good research: A commentary on the work and influence of Bob Perry* (pp. 48-67). Albury, Au: Peridot Education

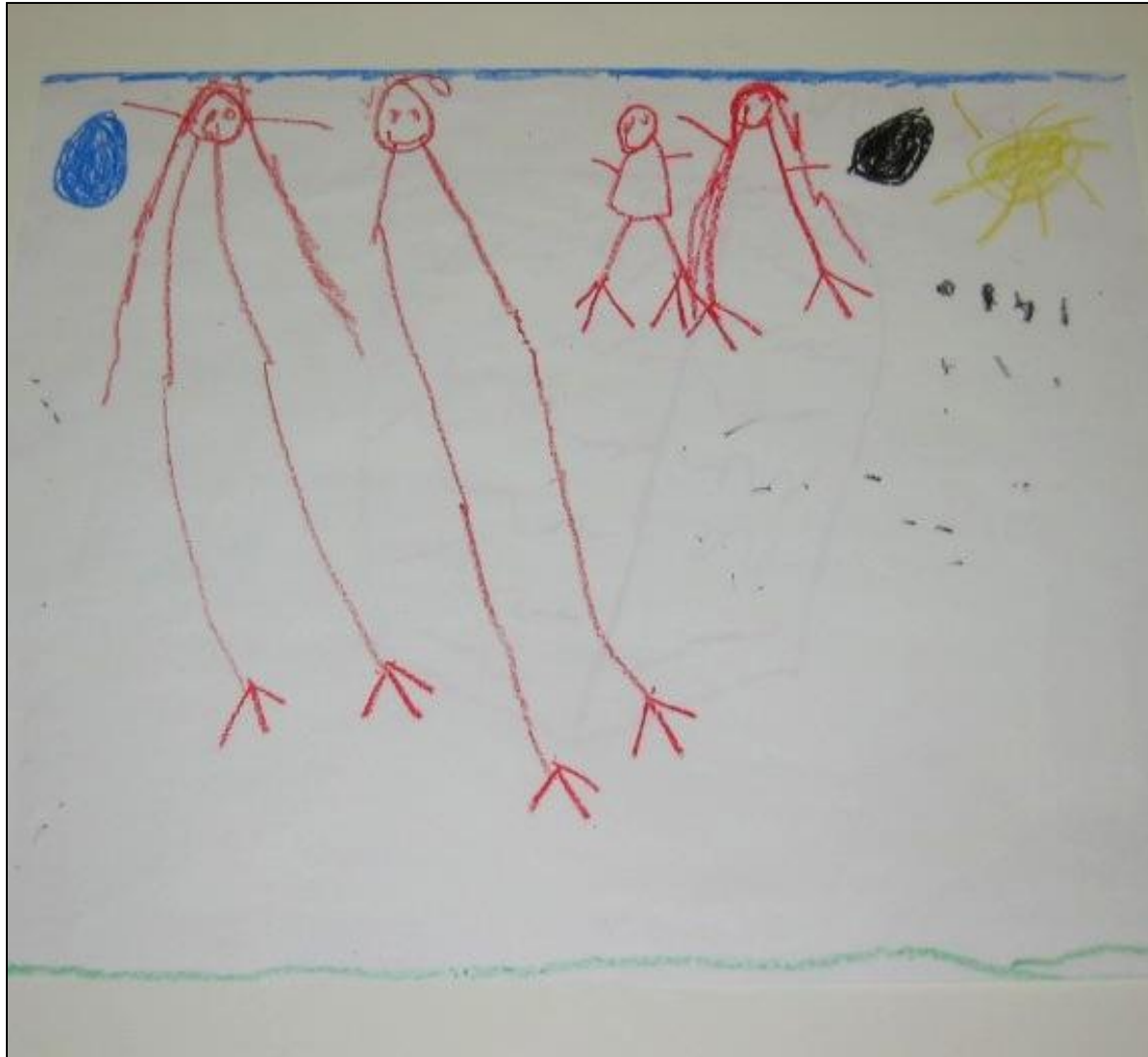
I'm playing with my friends at school (F 5 yrs)



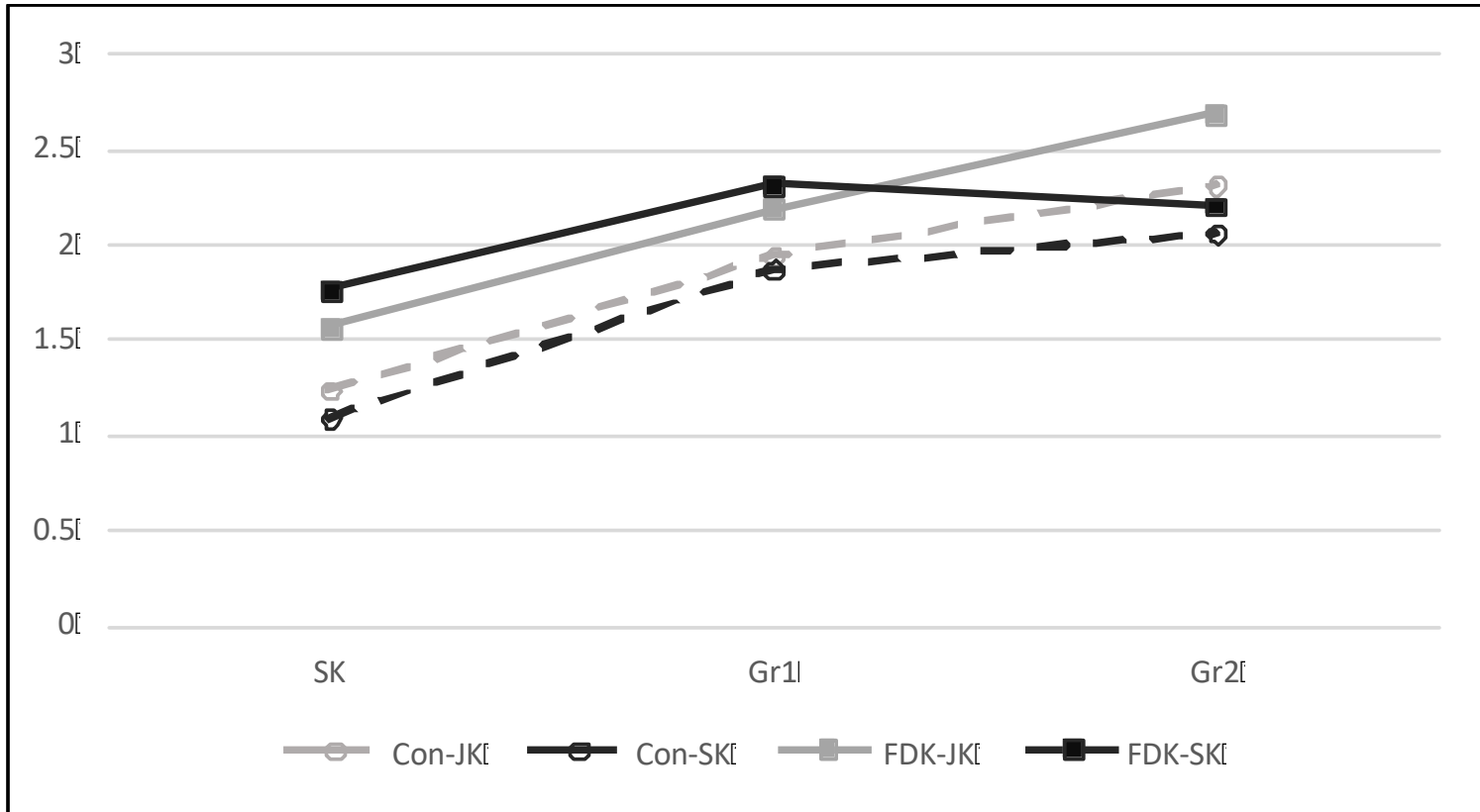
I like to play with Wally (M 4 yrs)



Me and my friends playing (F 4 yrs)



Drawing Complexity



FDK higher in K and Gr 1, only FDK JK higher in Gr 2

Drawing Themes

- ❖ FDK and HDK children drew themselves at play more than any other activity at school
- ❖ The word “play” needed to appear in the children’s descriptions of their drawings
- ❖ As children went through the grades, the themes changed from “play” to “social activities”, “recess”, “sports”
- ❖ We are continuing to code their drawings every year to Grade 6

