

**Preventing school difficulties by  
maximizing academic and social  
learning in the early years:**  
*The Fluppy Program*



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# Outline

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Program origin and description

Dissemination and implementation in  
Quebec

Evaluation of the program's efficacy

# The origins of Fluppy:

## *The Montreal Experimental Study* (1985-90)

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- Multi-modal intervention: parents, children and teachers
- Aggressive boys in Grade 2 (duration = 2 years)
- Impact:
  - reduction in behaviour problems
  - fewer diagnoses of BP at 13 years
  - etc.

# Birth of the *Fluppy Program* (1990)

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- Request from the field
- Design and dissemination by:
- Modifications
  - Kindergarten
  - Inclusion of girls
  - Adapted for the school environment and resource people
  - etc.
- Universal and targeted components



# Social skills development workshops

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## Universal intervention in class

## Content

Social skills

Recognition and expression of emotions

Problem solving

## Intervention strategies

15 workshops

Reinforcement of these skills by the teacher in real-life situations



# Intervention with parents

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Home visits

Assessment and information

Intervention strategies

Social support

Parenting skills

Parent-child relationship

20 meetings



# Intervention with teachers

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Support from resource people

Intervention strategies

Observation skills

Intervention plan



# Study on the dissemination and implementation of Fluppy in Quebec

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- Since 1990, the CPEQ has trained over *2,800* teachers and resource people
- At least *100,000* children have been exposed to the program
- Implemented in all regions of Quebec

# Study on the dissemination and implementation of Fluppy in Quebec

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## **Universal component** (in class)

\*85% apply at least 50% of the content

## **Family component** (at home)

- Only in 33% of classes where Fluppy is applied
- 8 visits (increase since 2001)

***Implementation varies greatly***

# Study on the dissemination and implementation of Fluppy in Quebec

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## Conclusions:

- 1) Assess the impact as implemented in the field  
*(efficacy study)*
  
- 2) Improve by:
  - a) extending duration (kindergarten and Grade 1)
  - b) adding new components (academic and friends)

# Academic intervention

## Reading

French adaptation of the Optimize Reading Program (Kame'enui et al., 2002)

Learning of the alphabetic code

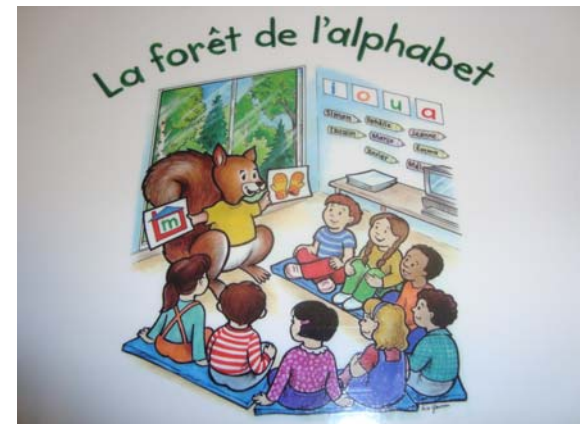
Phonological awareness

## Mathematics

Numbers and geometry

## Intervention strategies

Stories and activities



# Intervention to foster friendships

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Pairing of child with a competent peer

10 workshops supervised by resource people

## Intervention strategies

Practicing of social skills

Reinforcement of child's skills in front of peers



# “Efficacy” study of the Fluppy program in the Laval region (2002)

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## Partnership

3 universities (UQAM, UdeM, Sherbrooke)

CPEQ

Commission scolaire de Laval

Agence de développement de réseaux locaux de services de santé et de services sociaux de Laval

CSSS de Laval

## Funding

FQRSC, CIHR, SSHRC, FRSQ, CCL, MEQ

Lucie and André Chagnon Foundation

# Recruitment of participants

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3 cohorts (2002 to 2004)

250 kindergarten classes

**N = 320** pupils targeted (70% boys)

# Screening of pupils targeted

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Questionnaire with 18 statements completed by parents and teachers (aggressiveness, turbulence, opposition, hyperactivity)

Selection of pupils above the 65<sup>th</sup> percentile according to parental and teacher assessment (15% of sample)

# Evaluation guidelines

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## Universal (1)

**SS** (Social skills)

## Original (3)

**SS**

**T** (Teacher)

**P** (Parent)

## Improved (5)

**SS**

**T**

**P**

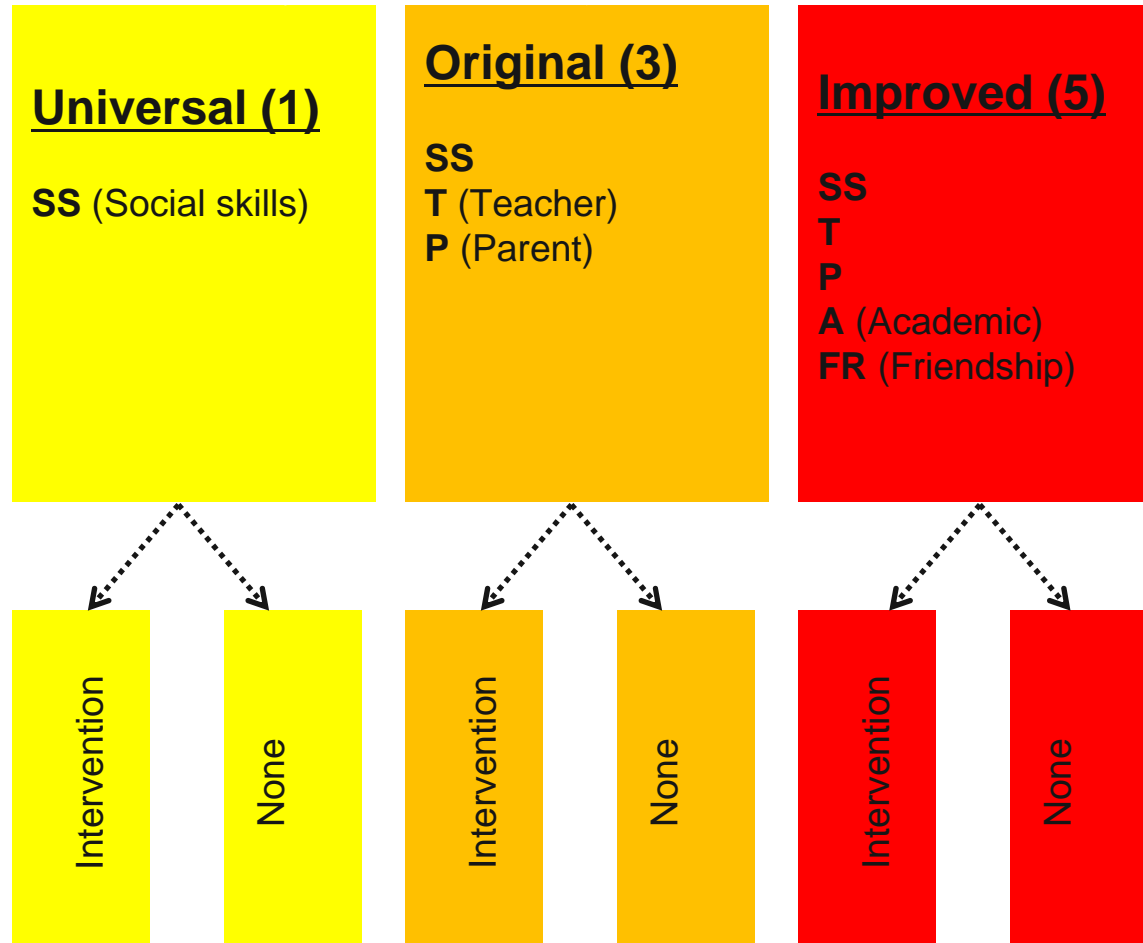
**A** (Academic)

**FR** (Friendship)

# Evaluation guidelines

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Kindergarten



# Dependent measures

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## Constructed

Behaviour  
Academic  
Cognitive  
Social (family, peers)

## Sources

Children  
Peers  
Teachers  
Mothers & fathers

## Method

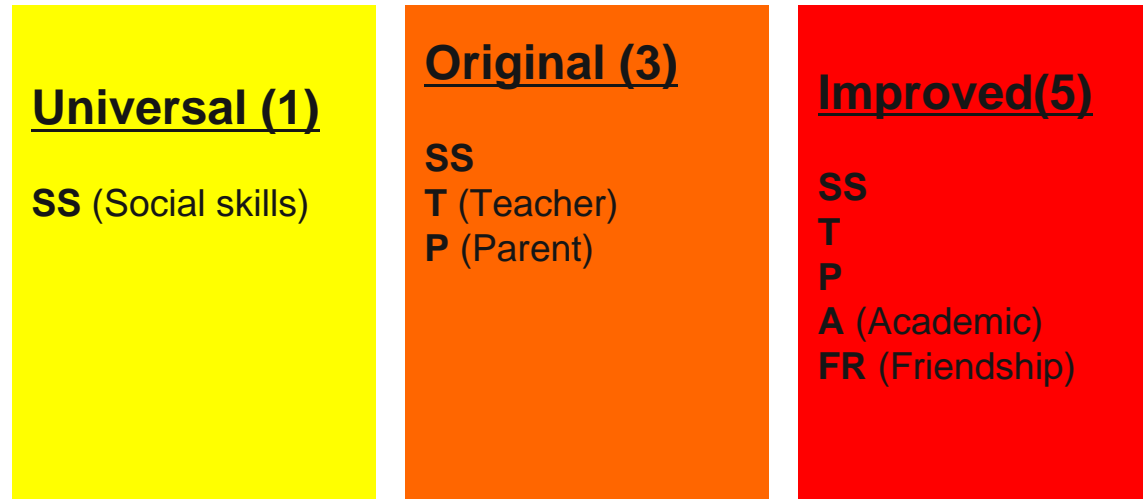
Questionnaires  
Interviews  
Observations  
Sociometry  
Official files

*Evaluation of implementation and application*

# Impact at end of kindergarten

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3 (Conditions) X 2 (Sex)



Externalizing problems  
School performance

Kindergarten

# Externalizing problems

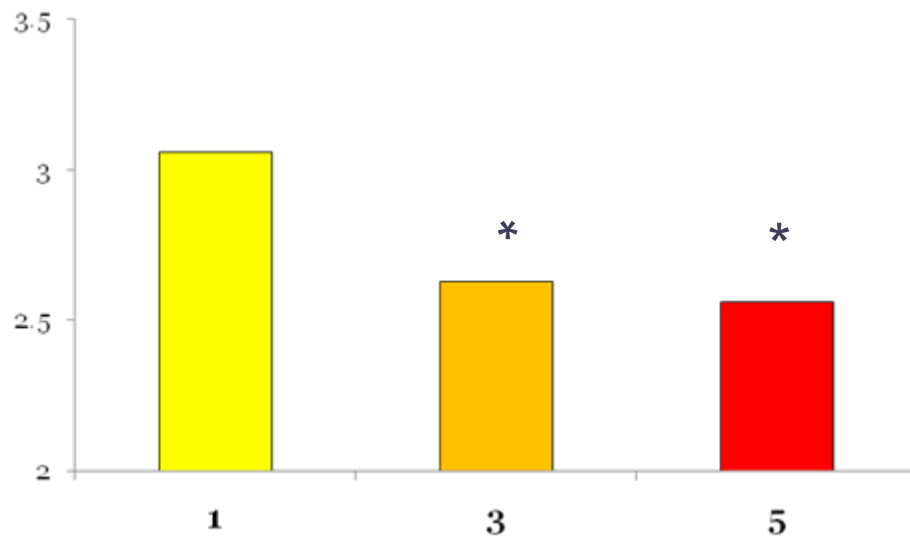
## (End of kindergarten)

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### Teachers

(Interaction Condition x Sex)

#### Girls

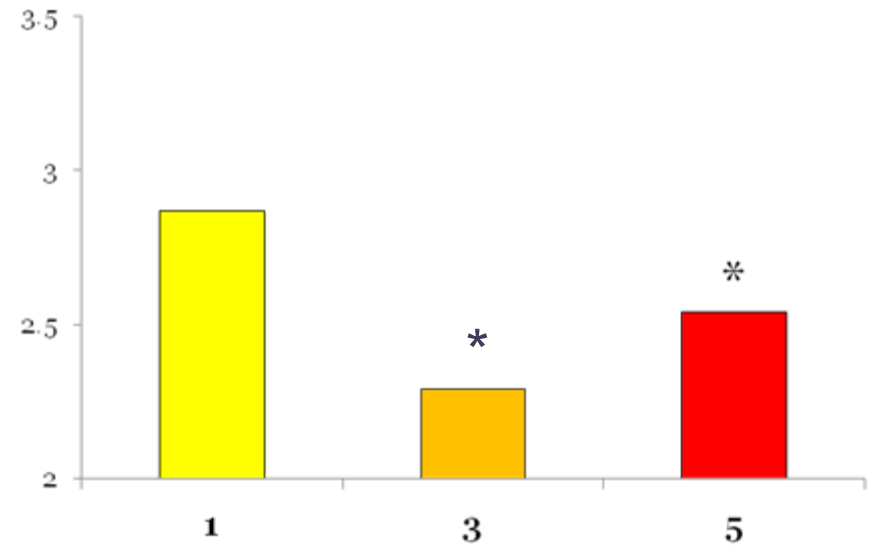


Post-test adjusted averages

### Parents

(Interaction Condition x Sex)

#### Girls



Post-test adjusted averages

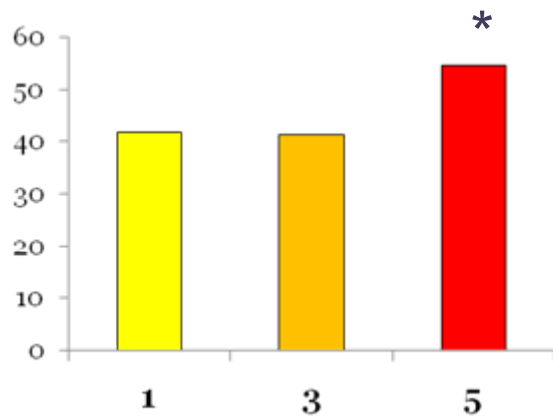
# School performance

## (End of kindergarten)

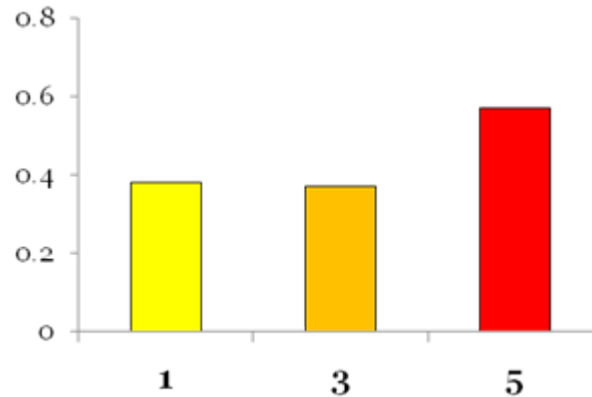
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### French tests

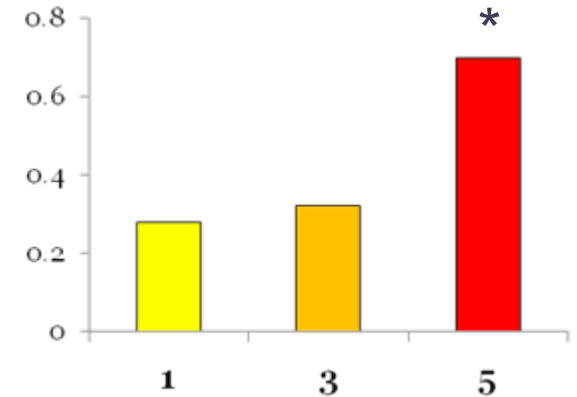
**Letter names and sounds**  
(condition effect)



**Reading of words**  
(no effect)



**Spelling**  
(condition effect)



### Mathematics tests

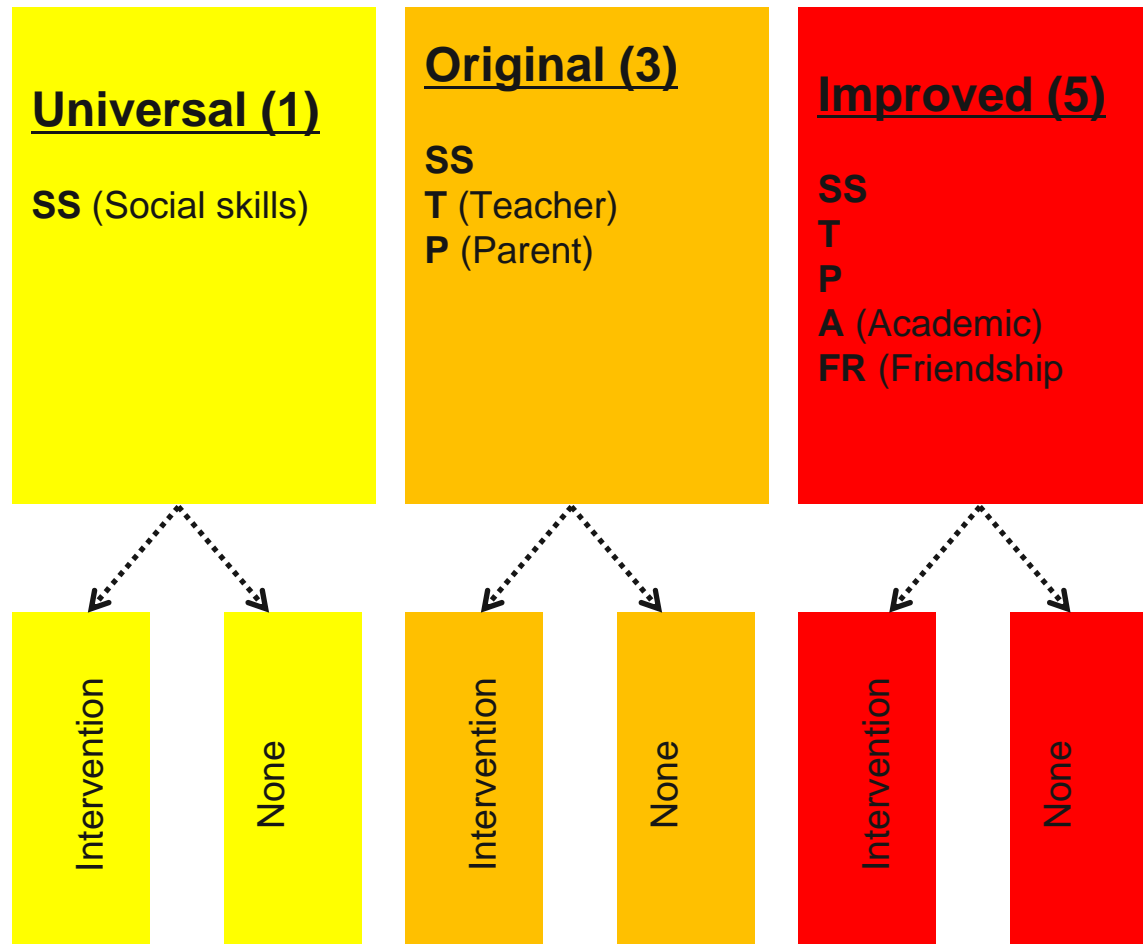
(no effect)

# Impact at end of Grade 1 (and later)

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3 (Conditions) X 2 (Duration) X 2 (Sex)

Kindergarten



Grade 1

# Externalizing problems

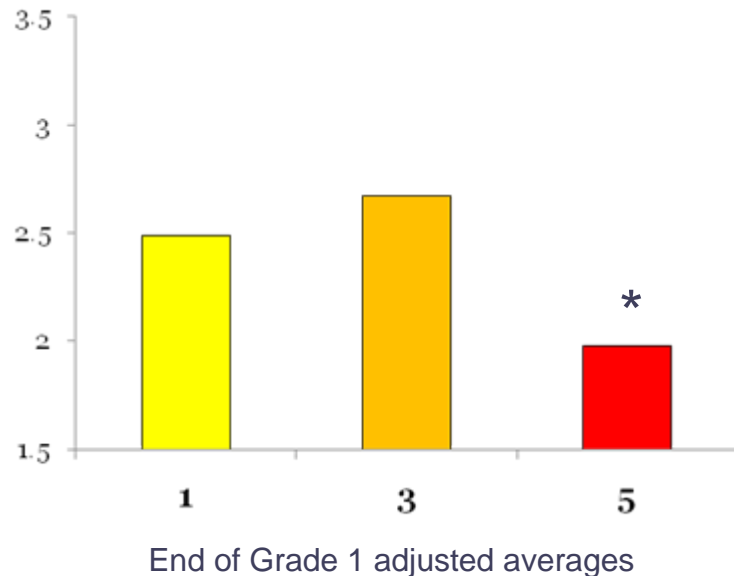
## (End of Grade 1)

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### Teachers

(Interaction Condition x Sex)

#### Girls



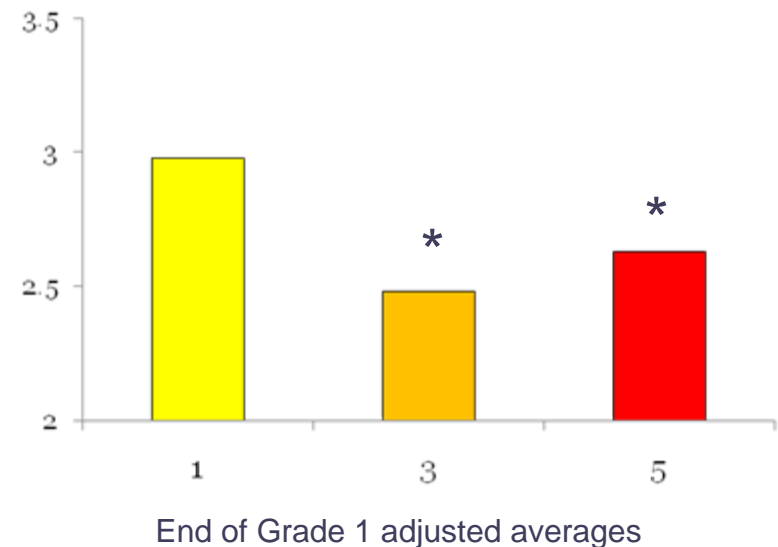
### Follow-up until Grade 4:

No effect

### Parents

(Interaction Condition X Duration)

#### Two years



### Follow-up until Grade 4:

Effect in Grade 2

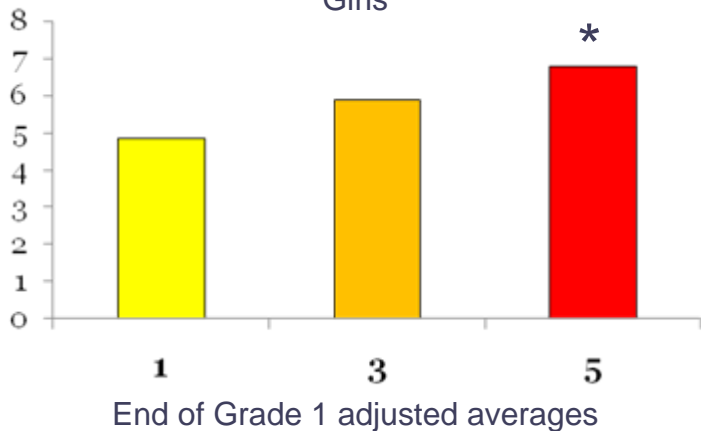
No effect in Grades 3 and 4

# School performance (Grade 1)

## Mathematics

Number knowledge (Condition X Sex)

Girls

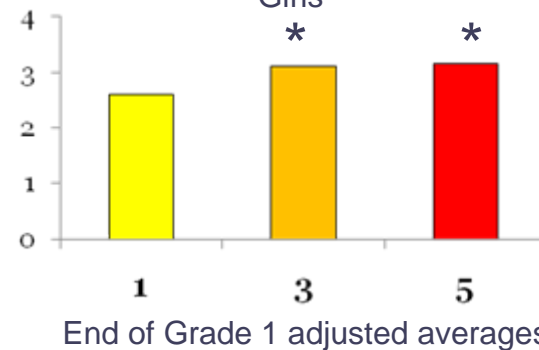


## Grade 1 report card

Condition X Sex (Girls)

## Mathematics

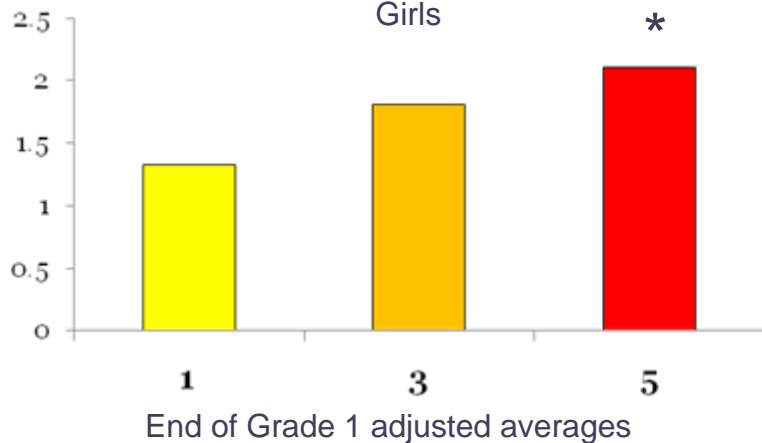
Girls



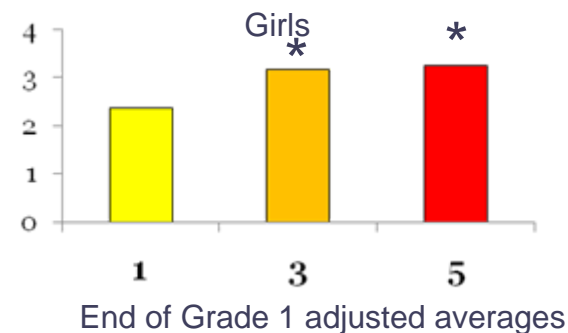
## French

Metaphonological skills (Condition X Sex)

Girls



## French



## Grade 2 report card

No effect

# Conclusions

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## ***1. Study in progress***

- continuation of analyses (e.g. moderating factors)
- follow-up until end of primary school
- has not yet undergone peer review

## ***2. Effects mostly for girls***

## ***3. Low maintenance of effects over long term***

# Comparison with known programs

	Montreal Study	Webster-Stratton	FAST-Track	Fluppy CPEQ	Fluppy in Laval
<b>Parents</b>	<b>17</b> /2 yrs Home visits	<b>14</b> / 1 yr Incredible Years	<b>22</b> / 1 yr (group) + Home visit/2 wk	<b>20</b> / 1 yr Home visits <b>(12-15)</b>	<b>8</b> / 2 yrs
<b>Children (social skills)</b>	<b>19</b> Group workshops	<b>30</b> Dinosaur school	<b>2-3</b> /wks Paths	<b>15</b> Classroom workshops	<b>9</b>

# Conclusions

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## ***1. Study in progress***

- continuation of analyses (e.g. moderating factors)
- follow-up until end of primary school
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## ***2. Effects mostly for girls***

## ***3. Low maintenance of effects over long term***

## ***4. Importance of continuing evaluation with partners***