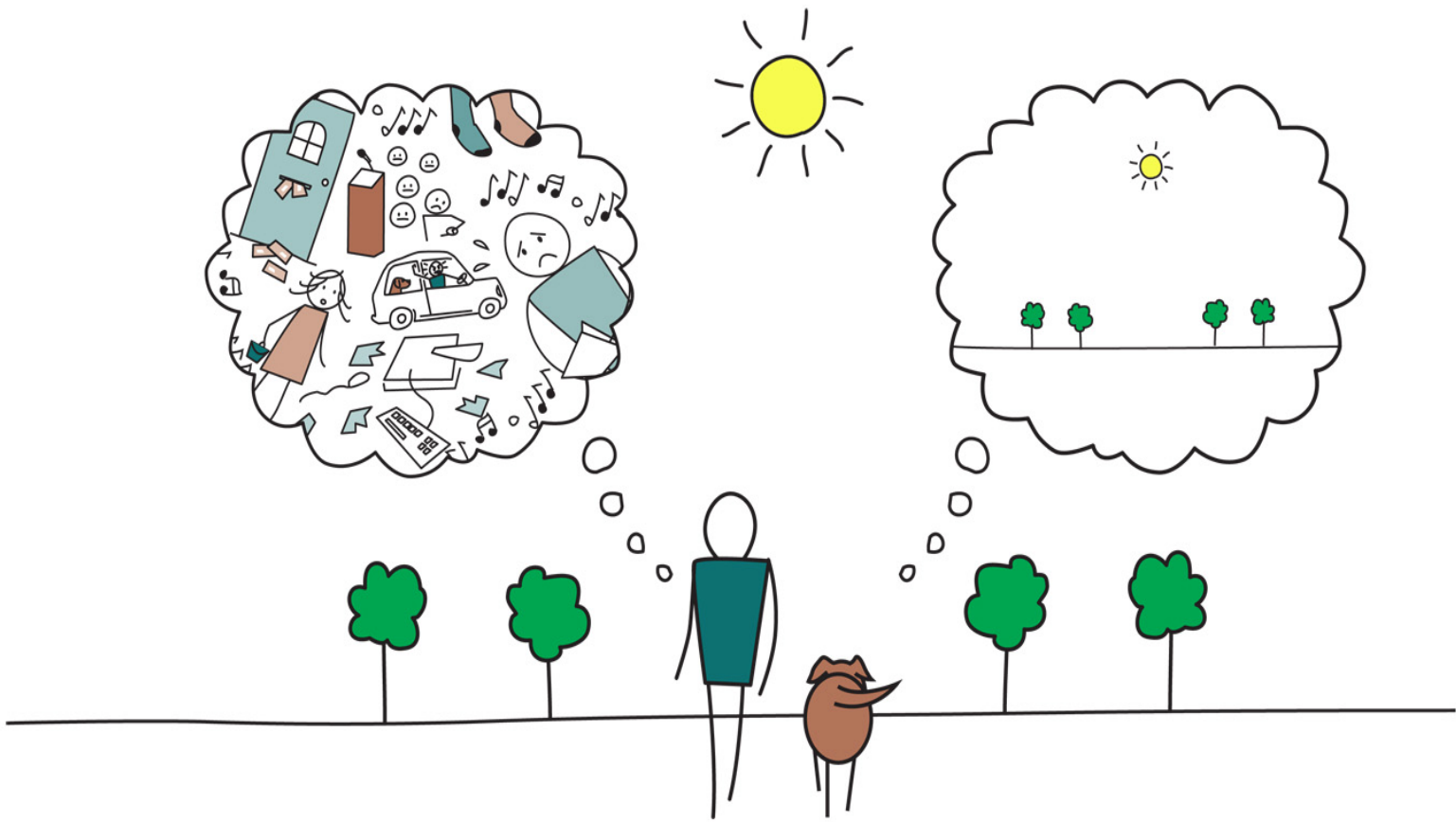


*Benefits of a Mindfulness-Based Program
in Early Childhood Classrooms*

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Summer Institute 2015

“Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” . (Kabat-Zinn, J. , 2000)



Mind Full, or Mindful?

Overarching Goal

To explore the benefits of a mindfulness-based program adapted and implemented in early childhood classrooms

Rationale:

A growing body of research showing the **benefits** of implementing **mindfulness-based programs** in **classrooms** with different age groups:

- **better attention; grades 1-3** (Napoli, Krech, & Holley, 2005)
- **better social and emotional skills; grades 4-7**
(Schonert-Reichl & Lawlor, 2010)
- **better self-regulation skills; grades 2-3** (Flook et al., 2010)

RESEARCH QUESTIONS:

- 1) Will children who receive the 6-week mindfulness-based program show greater *improvements* in self-regulation than children in the control group?
- 2) Will children who receive the 6-week mindfulness-based program show greater *increases* in prosocial behaviour than children in the control group?
- 3) Will children who receive the 6-week mindfulness-based program show greater *decreases* in hyperactivity than children in the control group?

4) Will children who have *difficulties* with:

self-regulation

prosocial behaviour

hyperactivity

show *more improvements* in these areas following the mindfulness-based program than children who were average or above average in these areas?

Self-Regulation

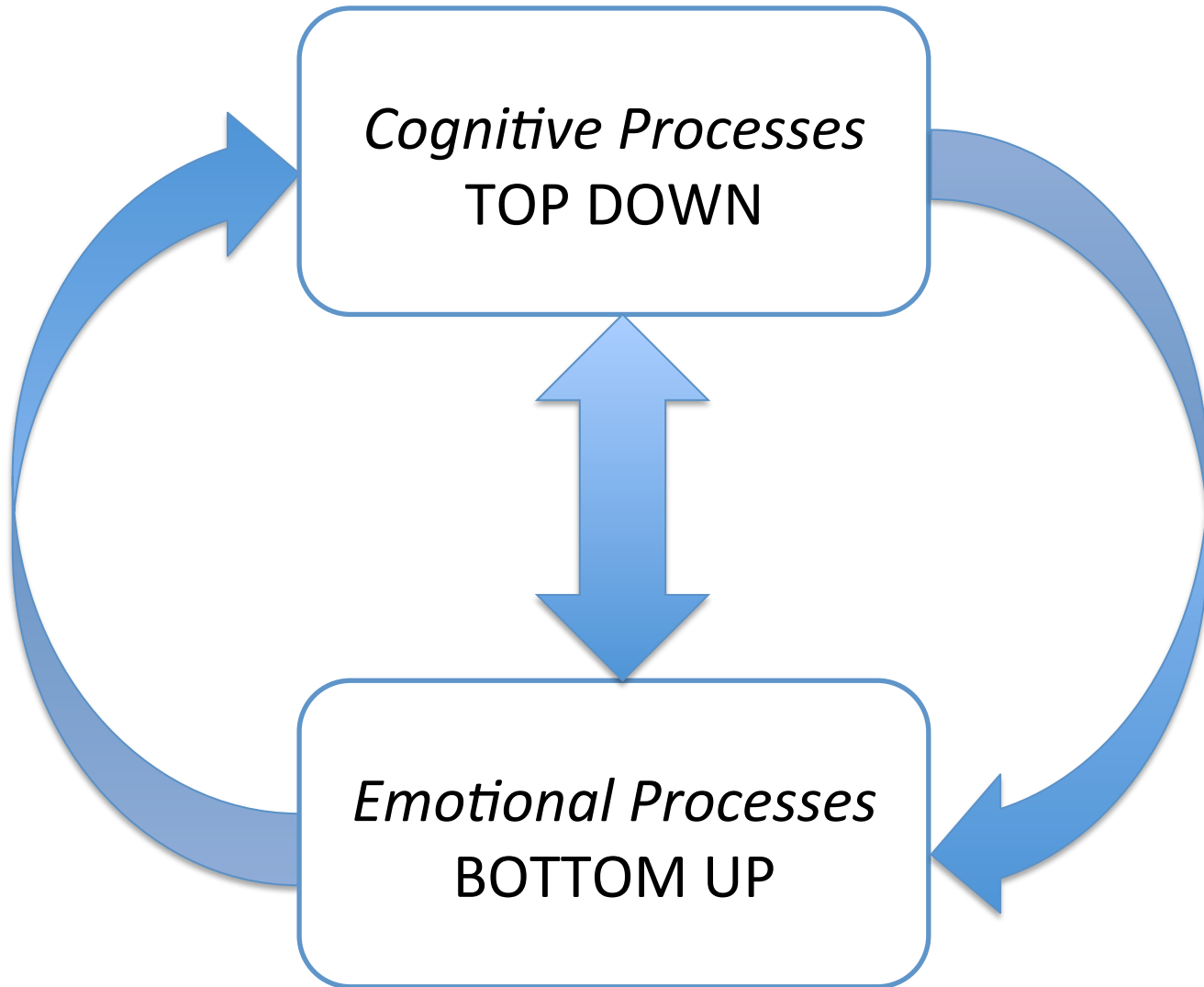
Ability to effectively and flexibly manage thoughts, feelings and actions, involving:

**flexible
attention**

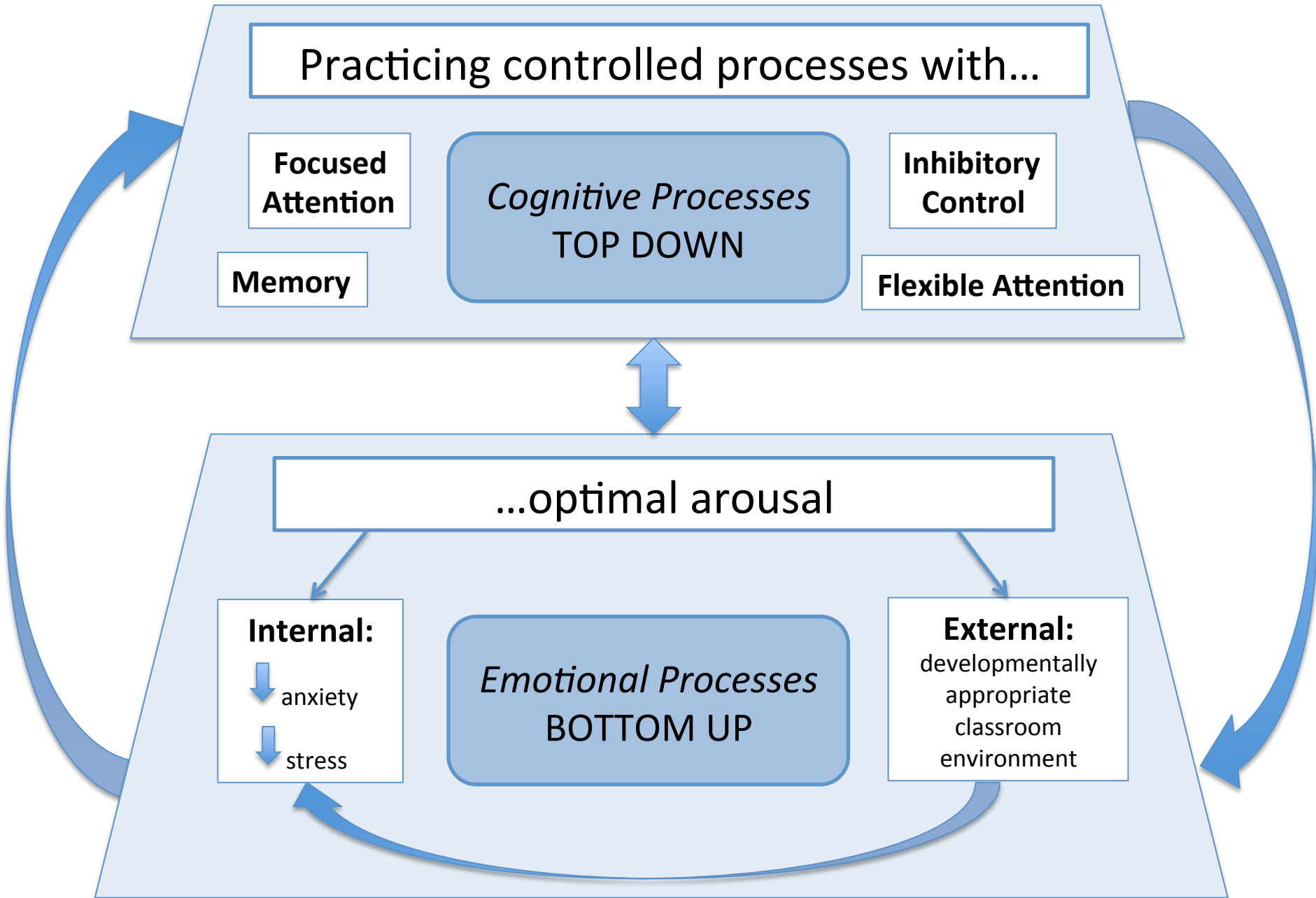
**working
memory**

**inhibitory
control**

SELF-REGULATION



IMPROVING SELF-REGULATION



Prosocial Behaviour

Behaviours that are positively responsive to the needs and welfare of others including:

sharing

comforting

cooperating

helping

being kind

Hyperactivity

Behaviours that are maladaptive including:

inattention

impulsivity

restlessness

fidgeting

overactive

Measures

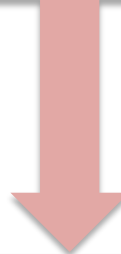
Self-Regulation



Head-Toes-Knees-Shoulders Task (HTKS)

(Cameron Ponitz, et al. 2008)

Prosocial Behaviour



Hyperactivity



Strengths and Difficulties Questionnaire (SDQ) for teachers

(Goodman, 1997)

Self-Regulation

Head-Toes-Knees-Shoulders Task (HTKS):

- Valid and reliable direct observational performance-based measure
- Administered one-on-one with child and researcher



Touch
your
knees



Touch
your
shoulders

Prosocial Behaviour

Hyperactivity

Strengths and Difficulties Questionnaire (SDQ):

25 Items

5 Scales (5 items per scale)

1) PROSOCIAL BEHAVIOUR SCALE

2) HYPERACTIVITY SCALE

3) CONDUCT PROBLEMS SCALE

4) PEER PROBLEMS SCALE

5) EMOTIONAL SYMPTOMS SCALE

Each item is scored by the teacher on a 3-point scale (“Not True”, “Somewhat True” or “Certainly True”)

Strengths and Difficulties Questionnaire (SDQ):

PROSOCIAL BEHAVIOUR SCALE	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	0	1	2
Shares readily with other children, for example toys, treats, pencils	0	1	2
Helpful if someone is hurt, upset or feeling ill	0	1	2
Kind to younger children	0	1	2
Often offers to help (parents, teachers, other children)	0	1	2

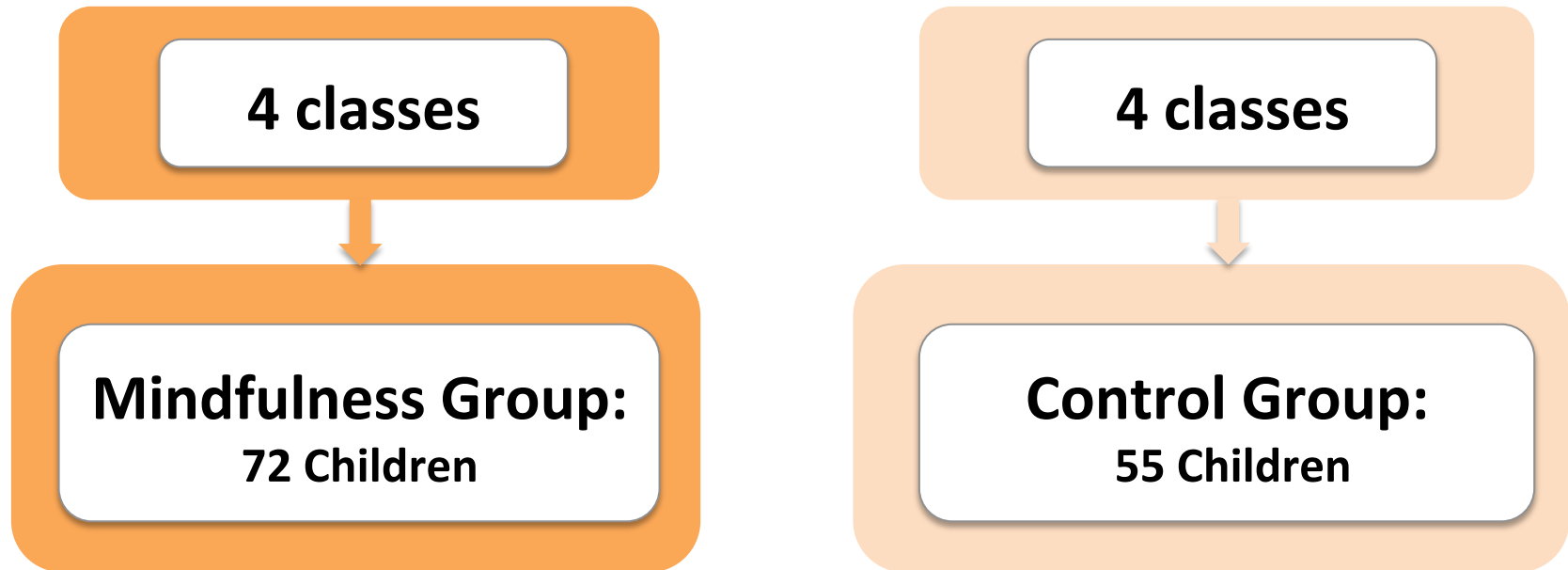
Strengths and Difficulties Questionnaire (SDQ):

HYPERACTIVITY SCALE	Not True	Somewhat True	Certainly True
Restless, overactive, cannot stay still for long	0	1	2
Constantly fidgeting or squirming	0	1	2
Easily distracted, concentration wanders	0	1	2
Thinks things out before acting	2	1	0
Good attention span, sees work through to the end	2	1	0

* Bolded items represent reverse coding

Participants

- 3 schools in the Toronto District School Board with FDK
 - 8 FDK classes randomly assigned to either group



- 127 children included in this study (ages 4-6)

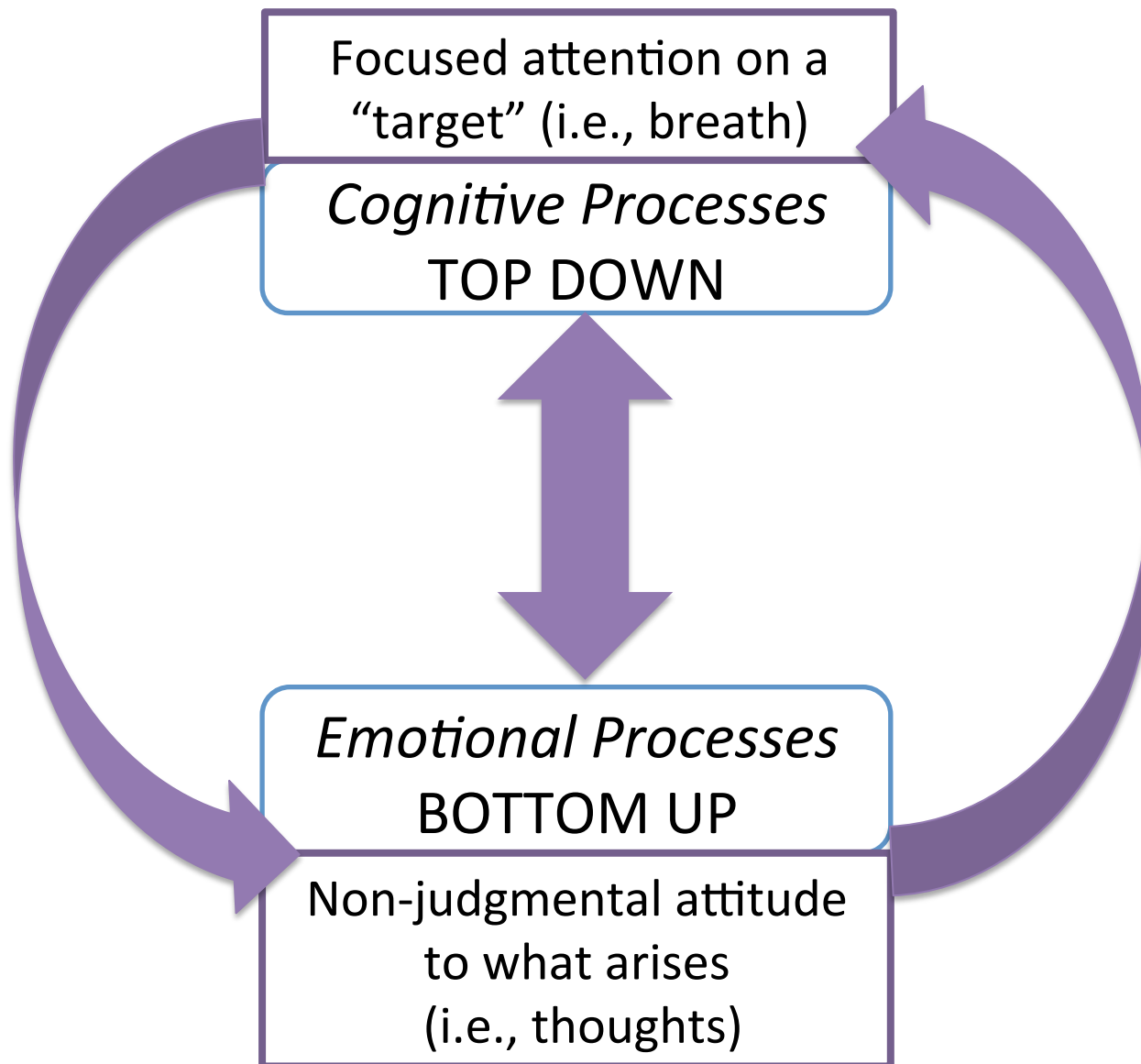
Procedure

Mindfulness-based program adapted
for early childhood classrooms

Mindful Schools
Integrating Mindfulness Into Education

- *Mindful Schools* Curriculum
- 18 lessons that can be adapted for grades K-12
- 20 minutes each
- Mindfulness exercises including breathing, walking, seeing, eating and listening
- Also included developing kind & caring thoughts toward oneself and others

MINDFULNESS



MINDFULNESS

Practicing *controlled* processes:

Cognitive Processes
TOP DOWN

Focused attention on a “target” (i.e., the breath)

Mind wanders
(i.e., to a thought/
emotion)

Flexible Attention:
Bringing attention from
where the mind wandered
back to the target

Memory:
remember
instructions to
return to target

Inhibitory Control: inhibit habitual
tendency to “stay” where the mind has
wandered and/or tendency to attach
judgment (i.e., negative emotion)

MINDFULNESS-BASED PROGRAM

Mindful Awareness Practices

During practice

Facilitating *cognitive* processes:

TOP DOWN

Focused Attention

Flexible Attention

Memory

Inhibitory Control

Practicing *emotional* processes:

BOTTOM UP

Mind wanders
(i.e., to a thought/emotion)

identify emotion

label emotion as neutral

Social and Emotional Learning

After practice

group discussion
(sharing about emotions)

independent reflection
(journaling)

develop awareness
of emotions
(in self and others)

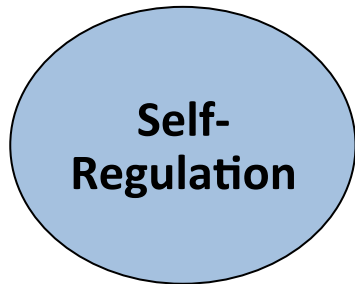
Procedure

TIME 1

**6 WEEK MINDFULNESS-
BASED PROGRAM**

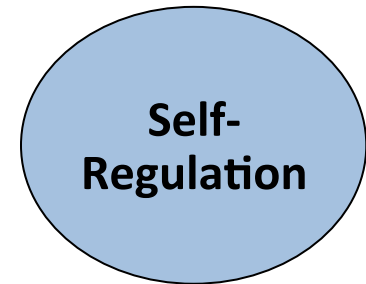
TIME 2

HTKS

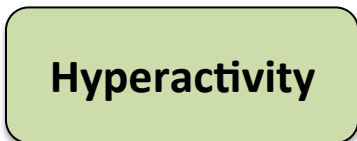
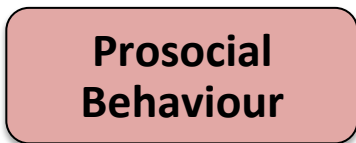


- *Mindful Schools* Curriculum
- 3 times a week
- 18 lessons
- 20 minutes each
- Delivered by me
- Mindfulness exercises including breathing, walking, seeing, eating and listening
- Also included developing kind & caring thoughts toward oneself and others

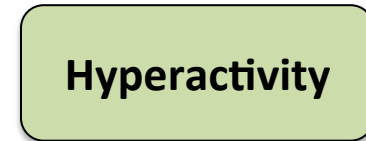
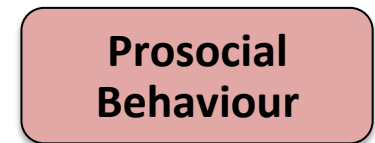
HTKS



SDQ



SDQ

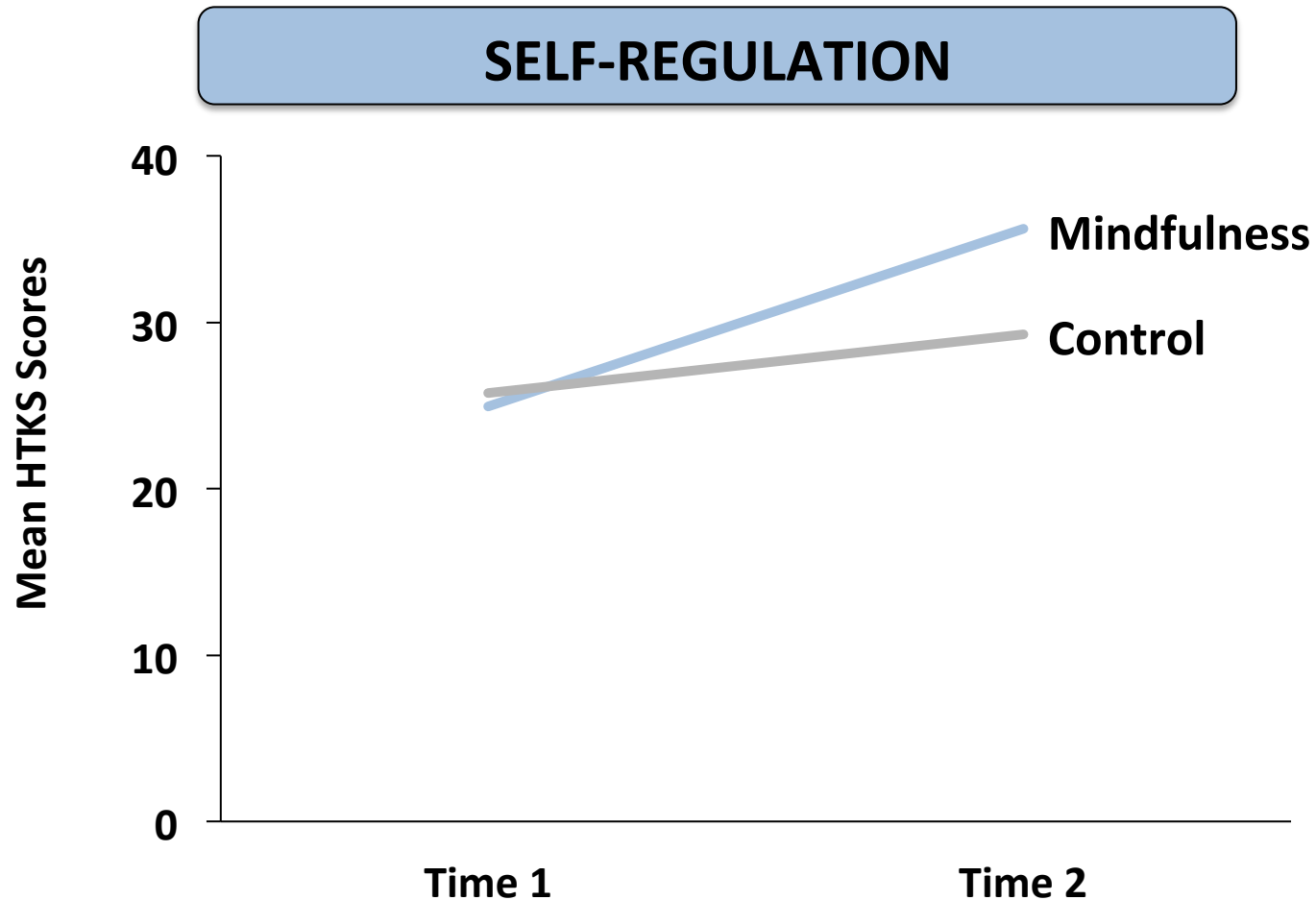


1) Will children who receive the 6-week mindfulness-based program show greater *improvements* in

SELF-REGULATION

than children in the control group?

RESULTS



**The Mindfulness Group exhibited better self-regulation at Time 2 compared to the Control Group (when controlling for Time 1 performance).*

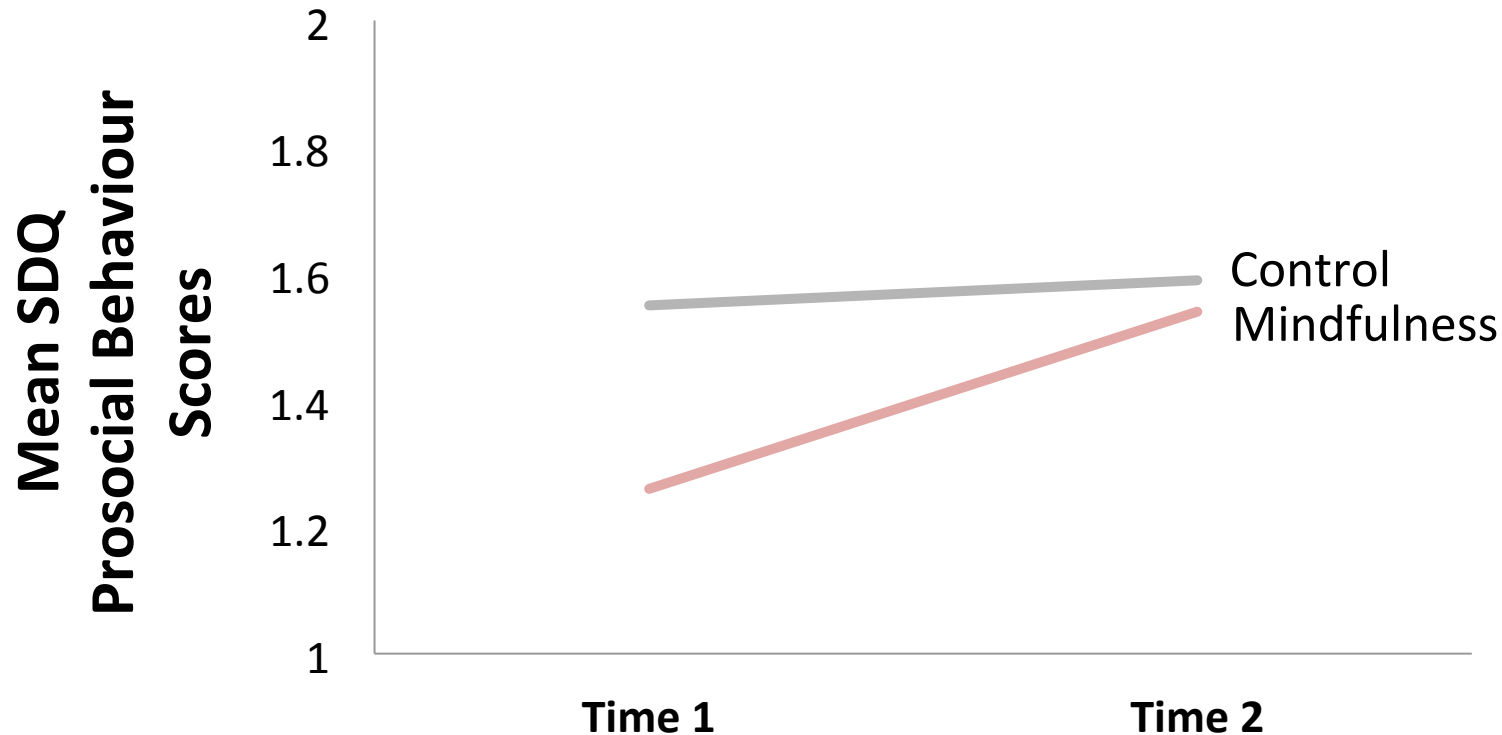
2) Will children who receive the 6-week mindfulness-based program show greater *increases* in

PROSOCIAL BEHAVIOUR

than children in the control group?

RESULTS

PROSOCIAL BEHAVIOUR



**The Prosocial Behaviour Scale scores between Time 1 and Time 2 significantly increased more in the Mindfulness Group than in the Control Group.*

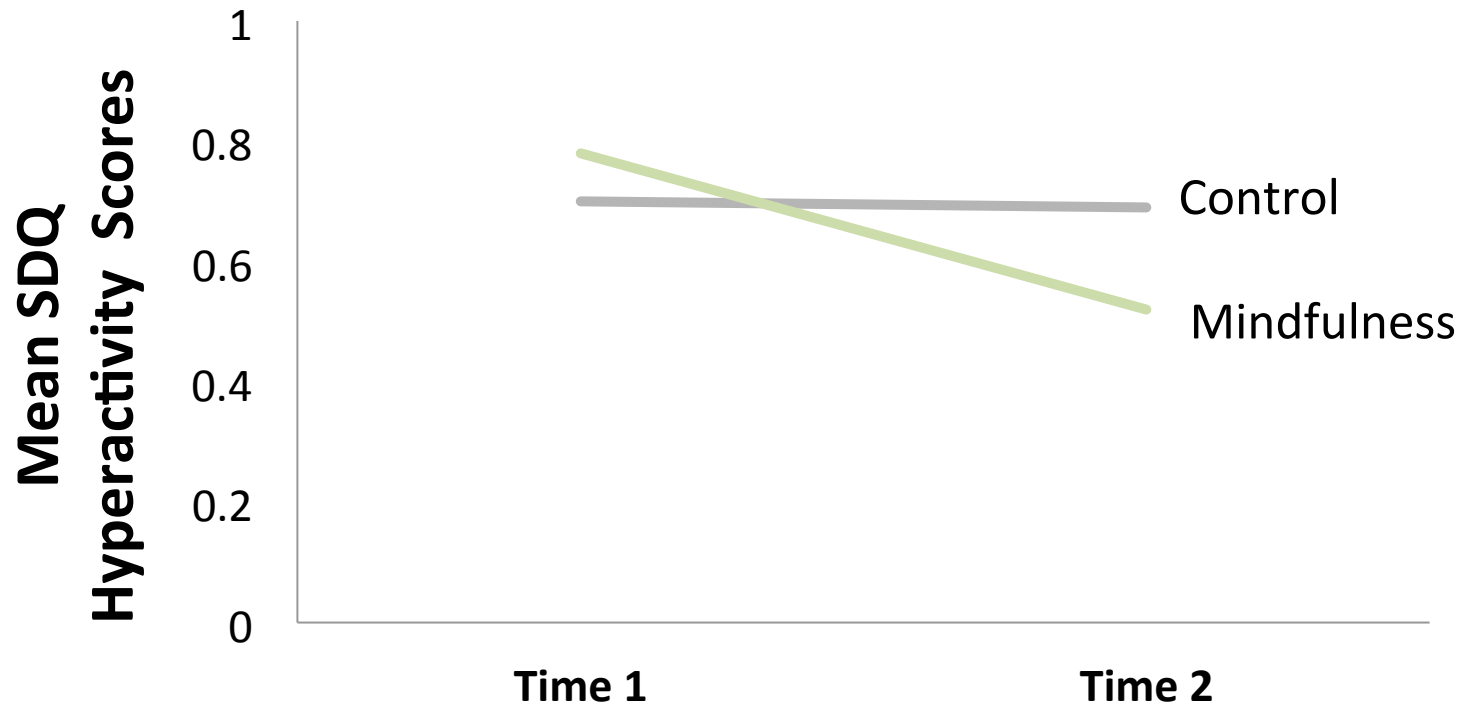
3) Will children who receive the 6-week mindfulness-based program show greater *decreases* in

HYPERACTIVITY

than children in the control group?

RESULTS

HYPERACTIVITY



**The Hyperactivity Scale scores between Time 1 and Time 2 significantly decreased more in the Mindfulness Group than in the Control Group.*

4) Will children who have *difficulties* in these areas show *more improvements* in these areas following the mindfulness-based program than children who were average or above average in these areas?

a.

SELF-REGULATION

b.

PROSOCIAL BEHAVIOUR

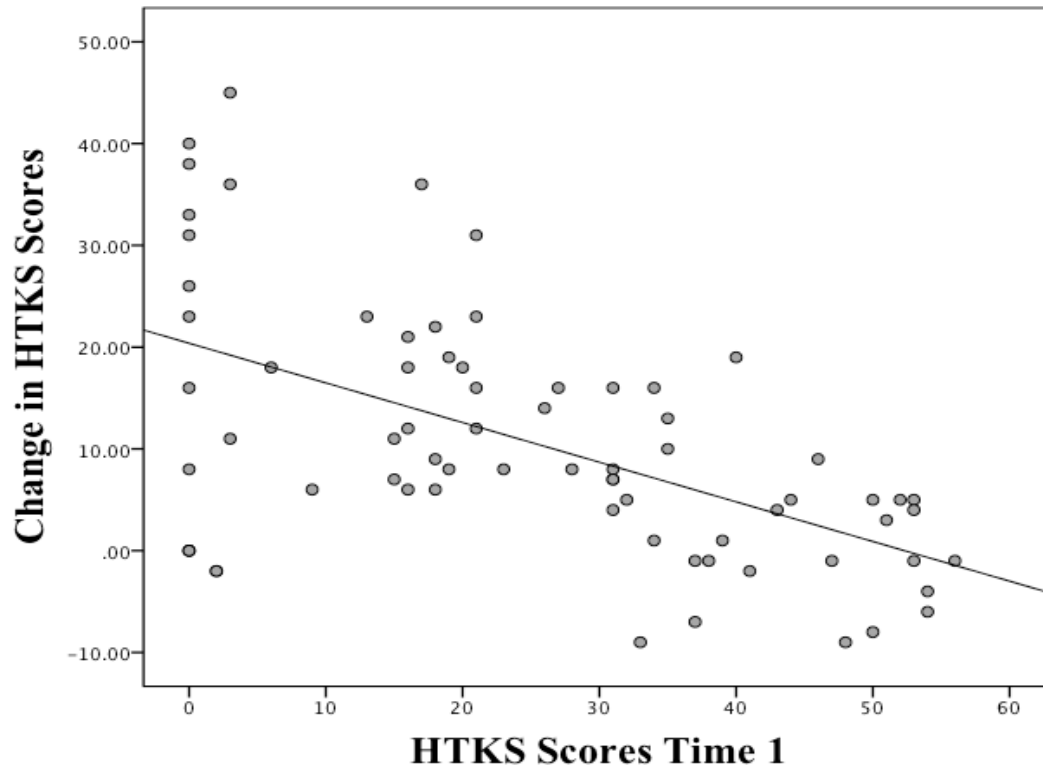
c.

HYPERACTIVITY

4) a. Will *children with difficulties* in self-regulation *benefit more* from the program than others?

RESULTS

SELF-REGULATION

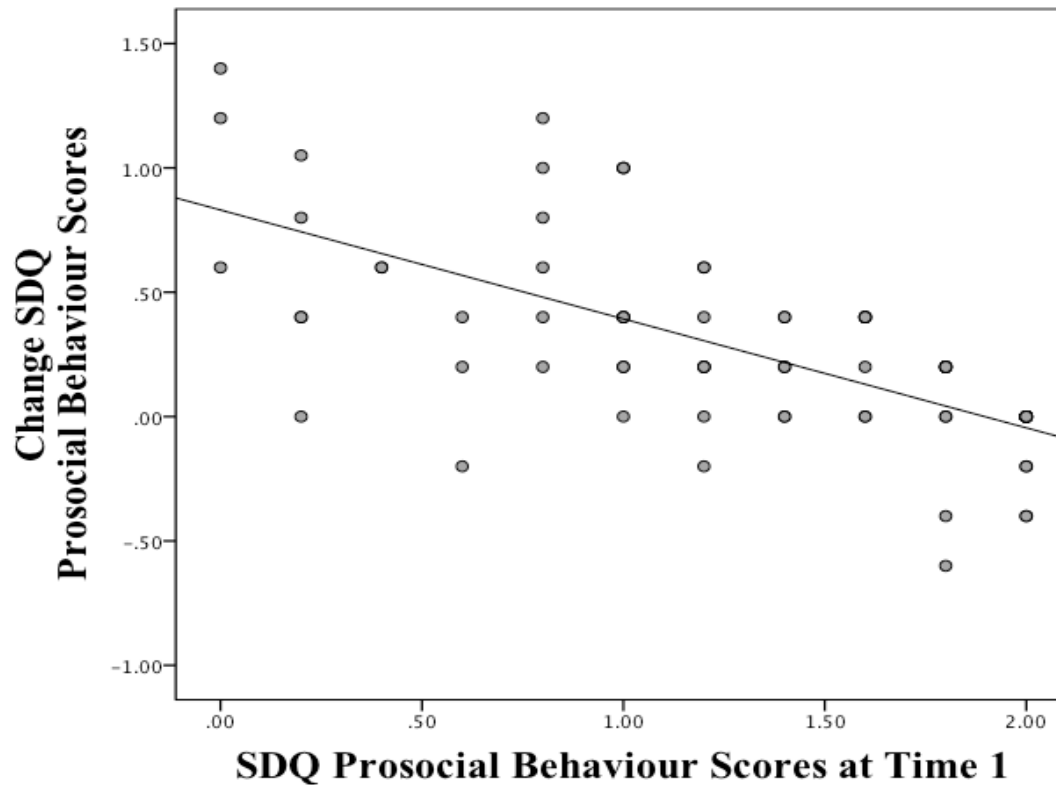


**Children who had lower self-regulation at Time 1 experienced more improvements in self-regulation at Time 2.*

4) b. Will *children with difficulties* in prosocial behaviour *benefit more* from the program than others?

RESULTS

PROSOCIAL BEHAVIOUR

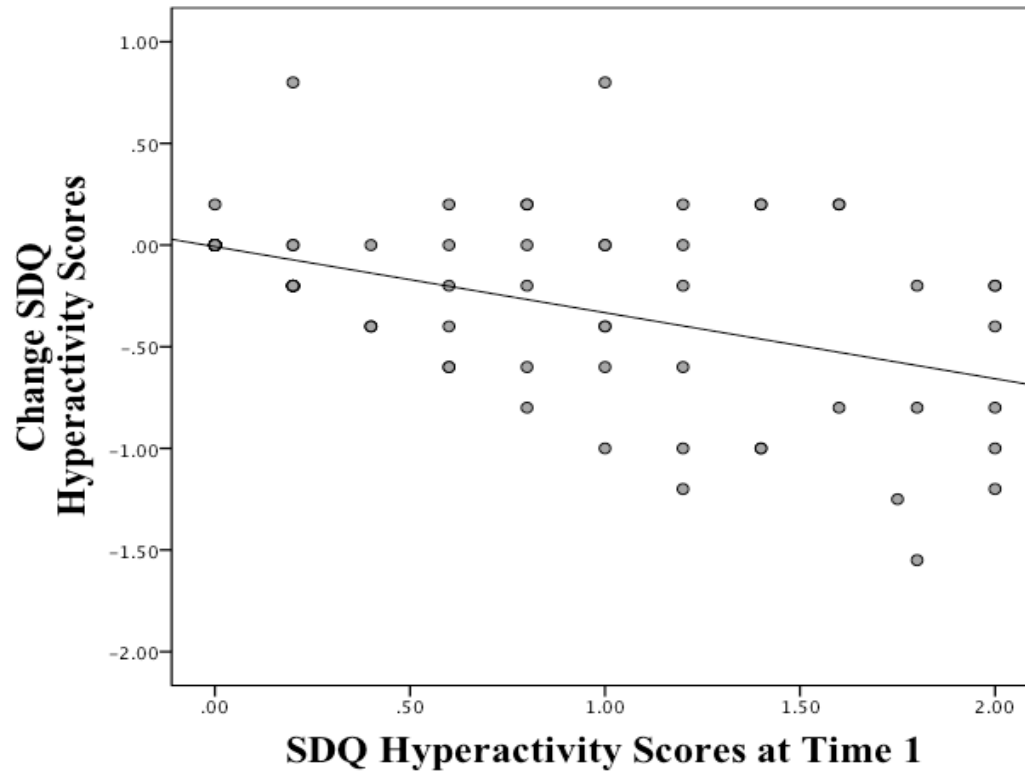


**Children who were less prosocial at Time 1 experienced more improvements in prosocial behaviour at Time 2.*

4) c. Will *children with difficulties* in hyperactivity *benefit more* from the program than others?

RESULTS

HYPERACTIVITY



**Children who were more hyperactive at Time 1 experienced more improvements in behaviours related to hyperactivity at Time 2.*

Conclusions & Implications

- The mindfulness-based program used in this study was a brief and feasible intervention implemented in a full day kindergarten classroom. It improved children's self-regulation, prosocial behaviour and decreased maladaptive behaviours related to hyperactivity.

Benefits for educators:

- **Increased Sense of Well-Being**
(Meiklejohn et al, 2012 meta-study, Jennings et al, 2013)
- **Increased Self-Compassion** (Flook et al, 2013)
- **Decreased Anxiety and Depression** (Flook et al, 2013)
- **Reduced Stress and Burnout** (Roeser et al, 2013; Flook et al, 2013)
- **Increased Self-Awareness** (Jennings et al, 2013)
- **Improved Ability to Manage Classroom Behaviour** (Meiklejohn et al, 2012 meta-study)
- **Improved Relationships with Students**
(Meiklejohn et al, 2012 meta-study, Jennings et al, 2013)

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