

Social Distancing & Development Study (SDDS)

Language and Cognitive Development during the Pandemic

Nayeli Gonzalez-Gomez , Catherine Davies, Alexandra
Hendry, Teodora Gliga, & Michelle McGillion



CLOSED

DUE TO
COVID-19

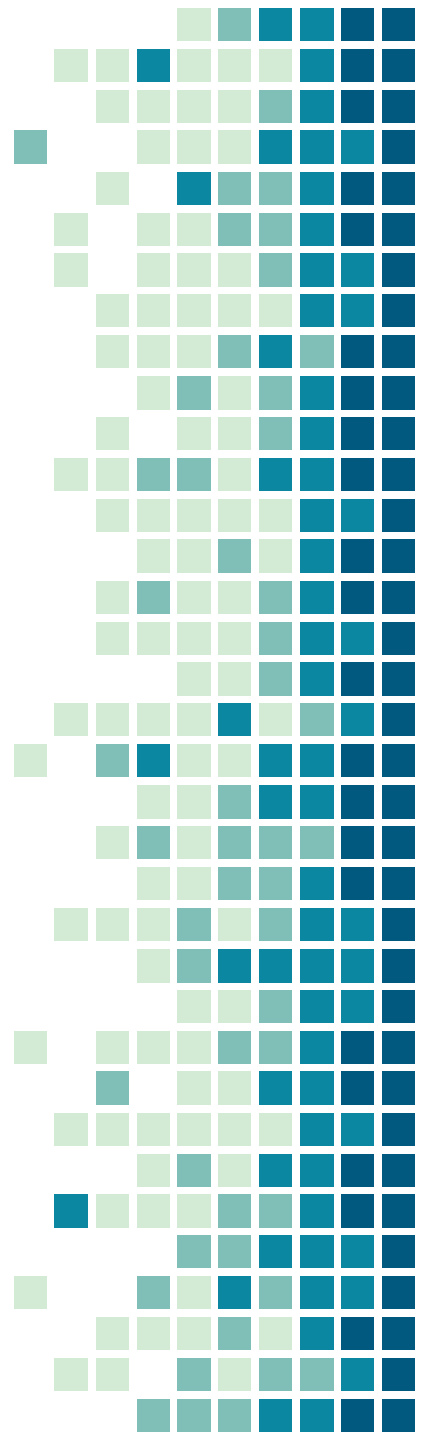
**STAY AT
HOME** 

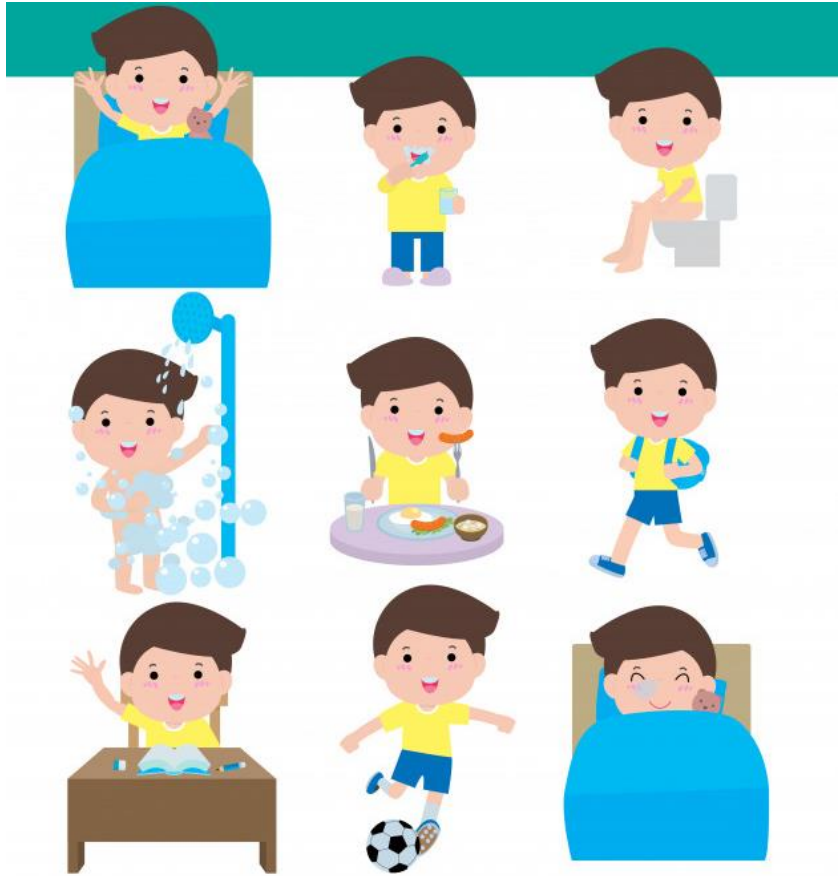
**PROTECT
THE NHS**

 **save
lives**



COVID-19 
**LOCK
DOWN**





Routines



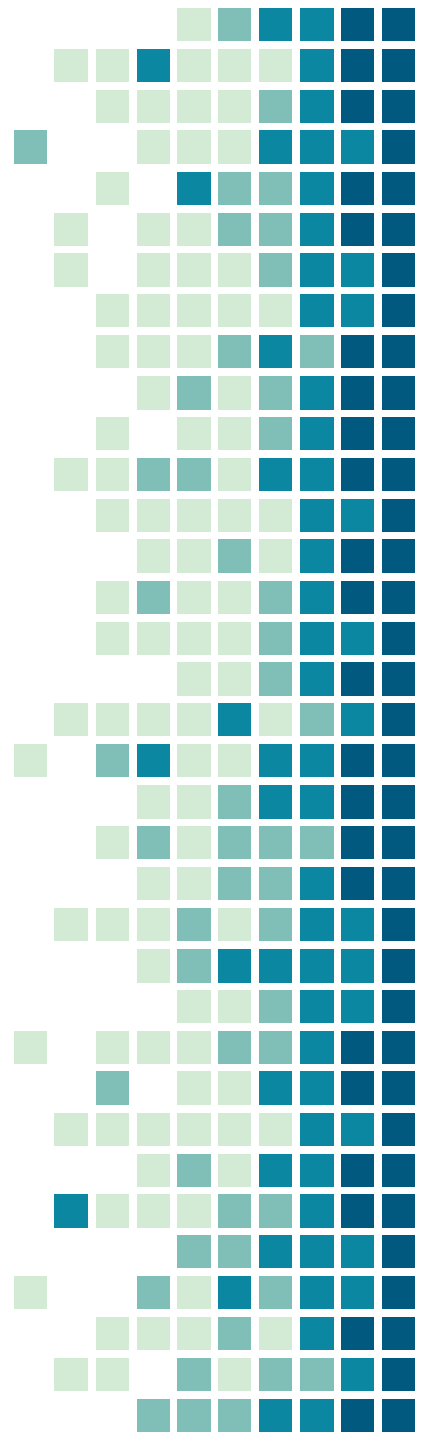
Social Interactions



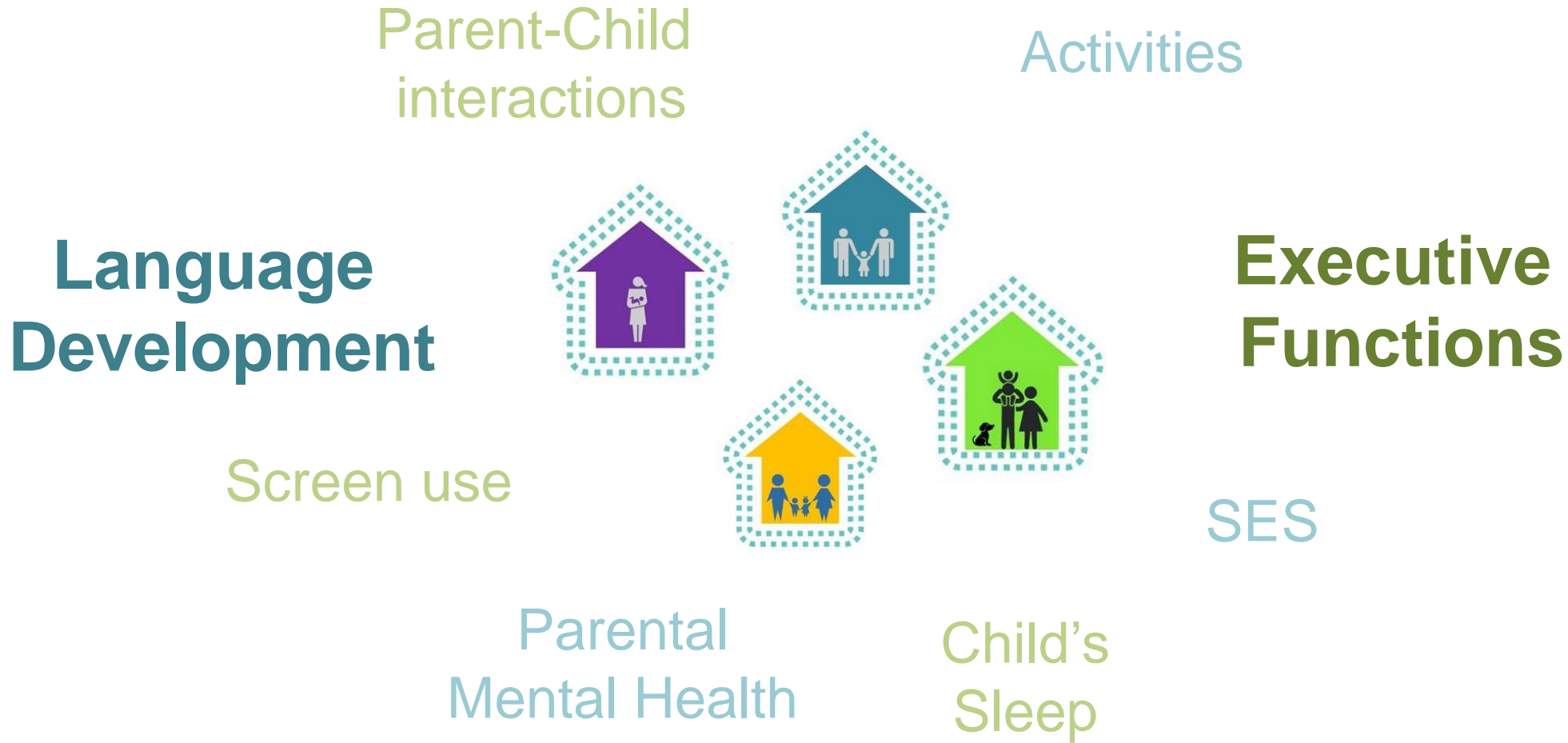


**School
closures**

**Caring
commitments**



Our Study

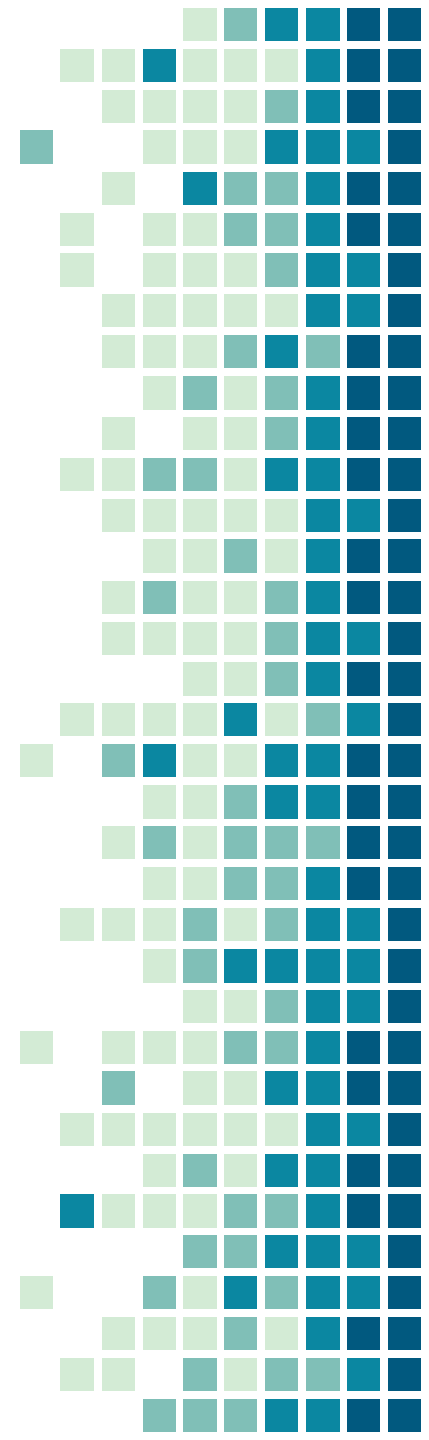




Executive Functions

Cognitive
“Thinking skills”

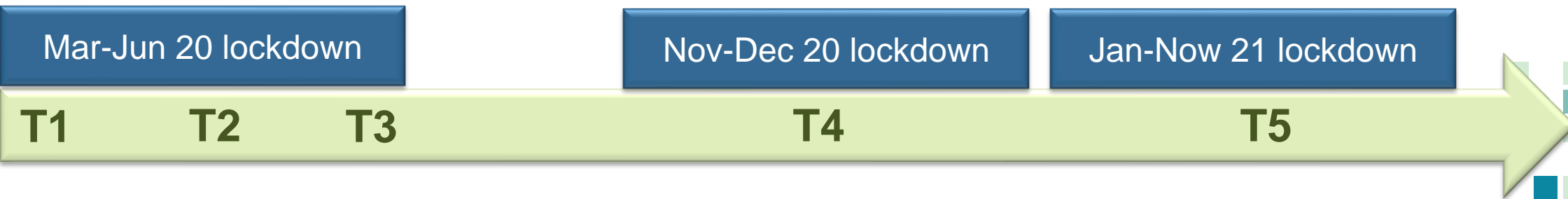
Regulatory







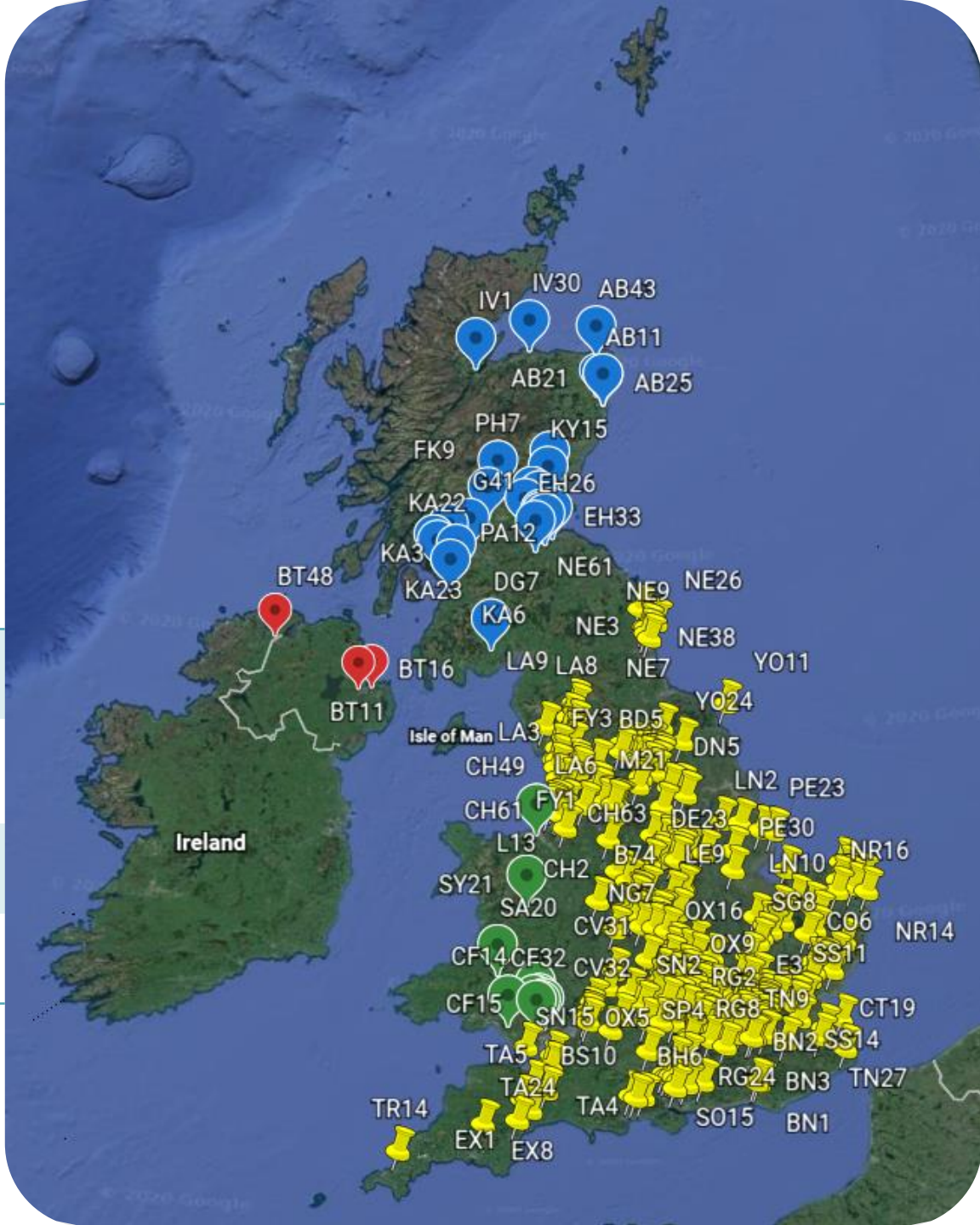
Methods

Participants:

- 892 families with 8-to-36-month-olds
($M_{age}=19m\ 20d$; 452 girls)
- 532 completed T1/T2 + T3
- 251 completed + T4
- 345 completed + T5



	SDDS	UK 2019 population	
England	93%	84%	
Scotland	4%	8%	
Wales	2%	5%	
NI	1%	3%	



Methods

Online Questionnaire:

Family's Background:

Demographic questionnaire

Parenting: Early Parenting Attitudes questionnaire

Language: Oxford CDI

Sleep: Sleep and Settle Questionnaire

Executive Functions:

Early Executive Functions Questionnaire

Home Activities:

Caregiver-Child/Child-only Activities Questionnaire

Mental Health:

Depression Anxiety Stress Scale

Parent-child interactions: 10 min recordings

ECEC

Behavioural outcomes:

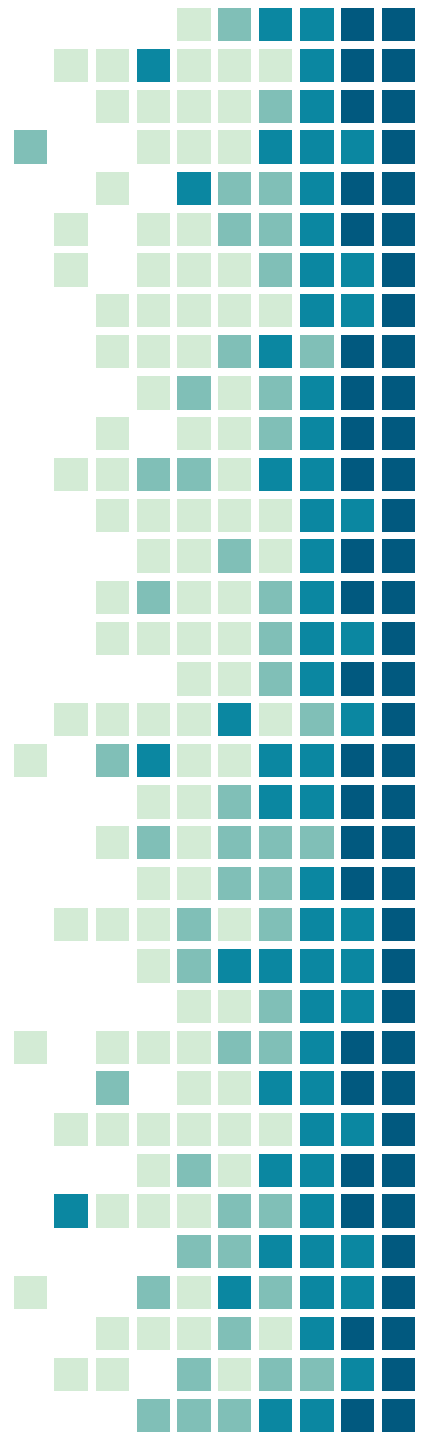
SDQ

ASQ



Results

PRELIMINARY

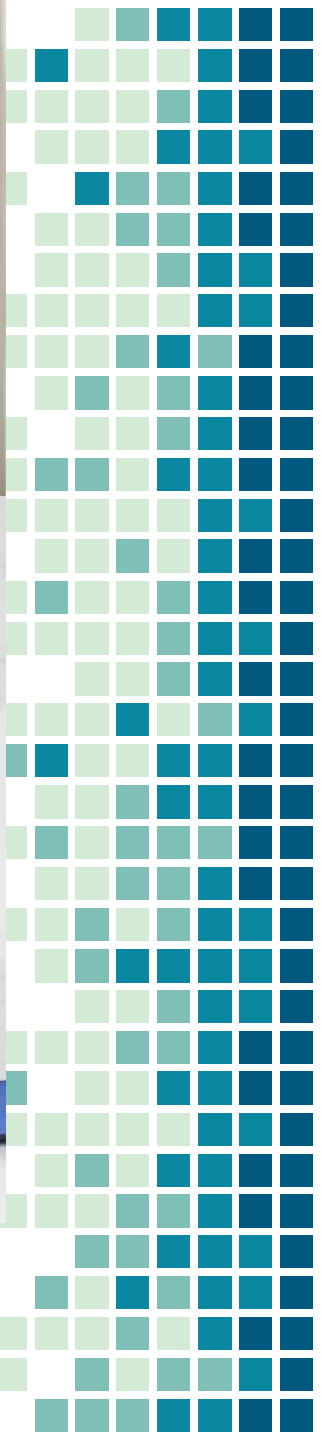




**What were babies doing
during lockdown?**

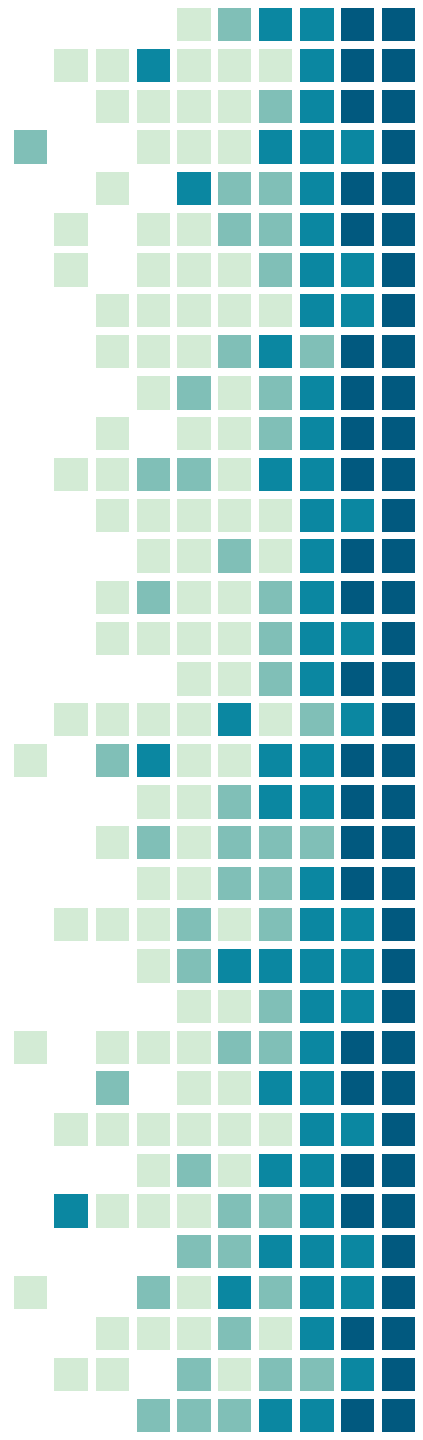


Increase in time  doing indoor activities



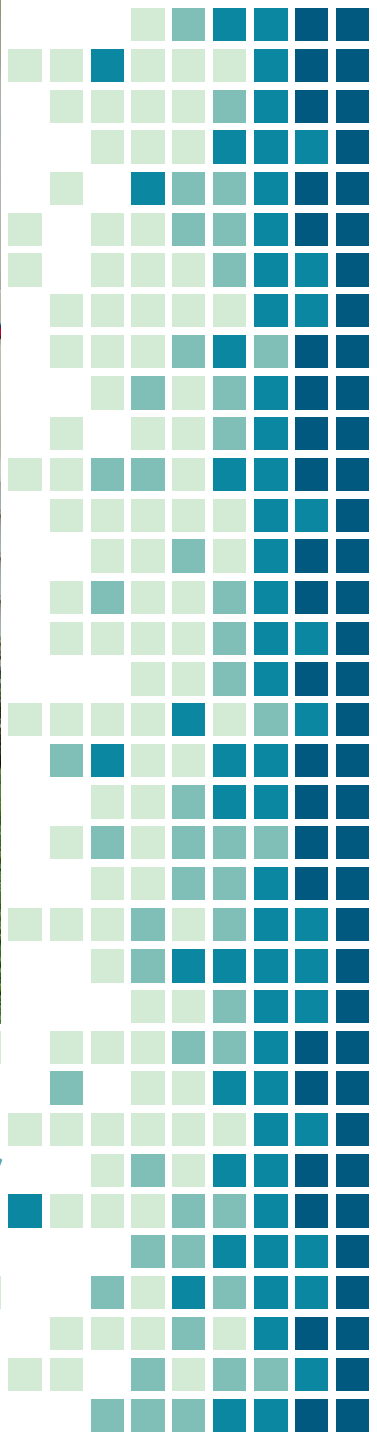


Increase in time  doing outdoor activities





Increase in time  indoor/outdoor activities

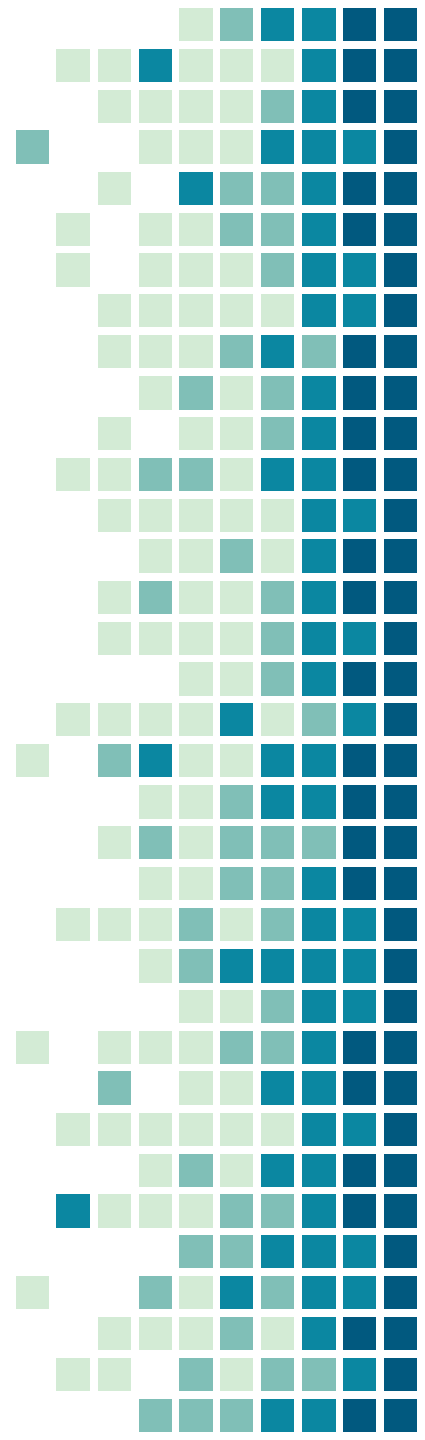




Increase in screen time



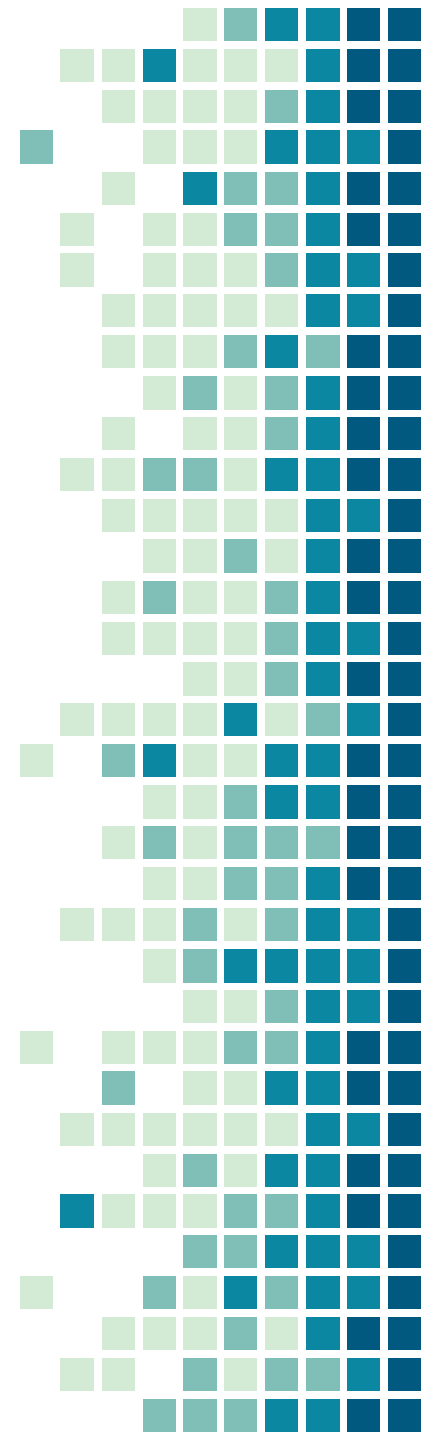
During Lockdown
Lower-SES:
-Enriching Activities
+ Screen



Links between SES and parenting activities

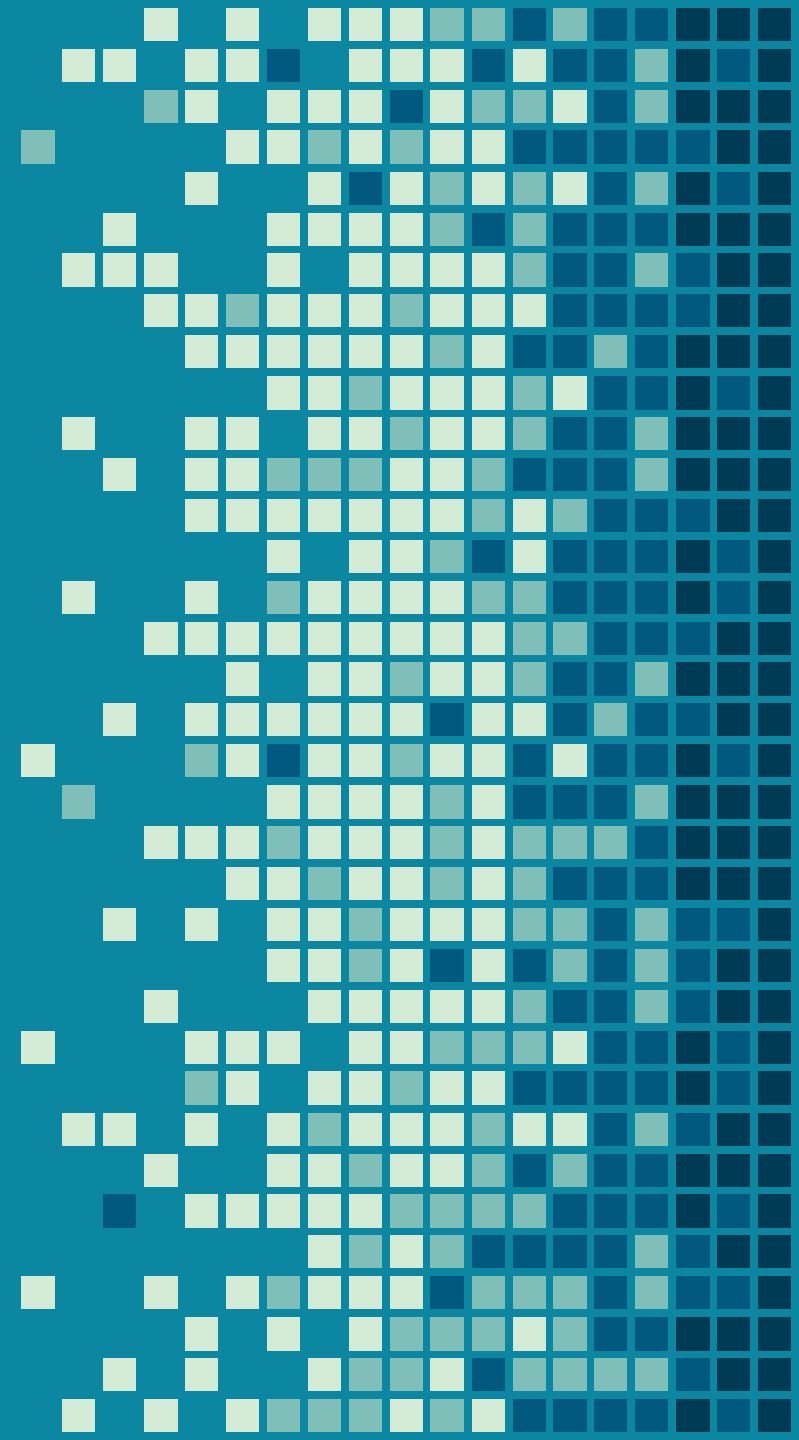


Spring and Winter lockdown activities





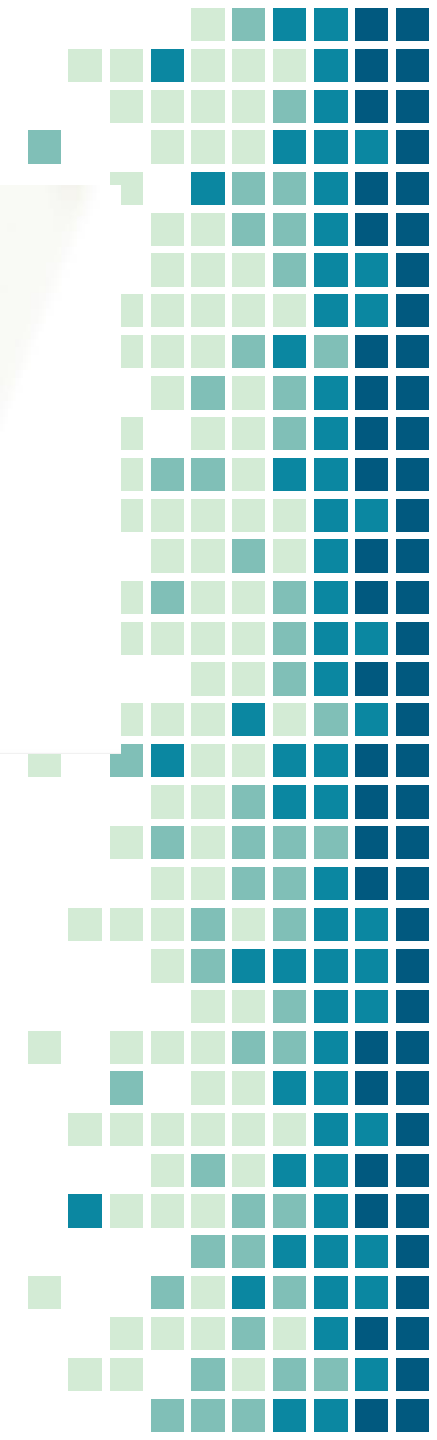
Language Development



Activities and Language Growth



Spring 2020 Lockdown



Activities and Language Growth



Executive Functions



Parenting factors during Lockdown associated with EF



Regulatory



Affection and Attachment

Social Gradients**



Thinking Skills

Enriching Activities

Parenting factors during Lockdown associated with EF



Regulatory

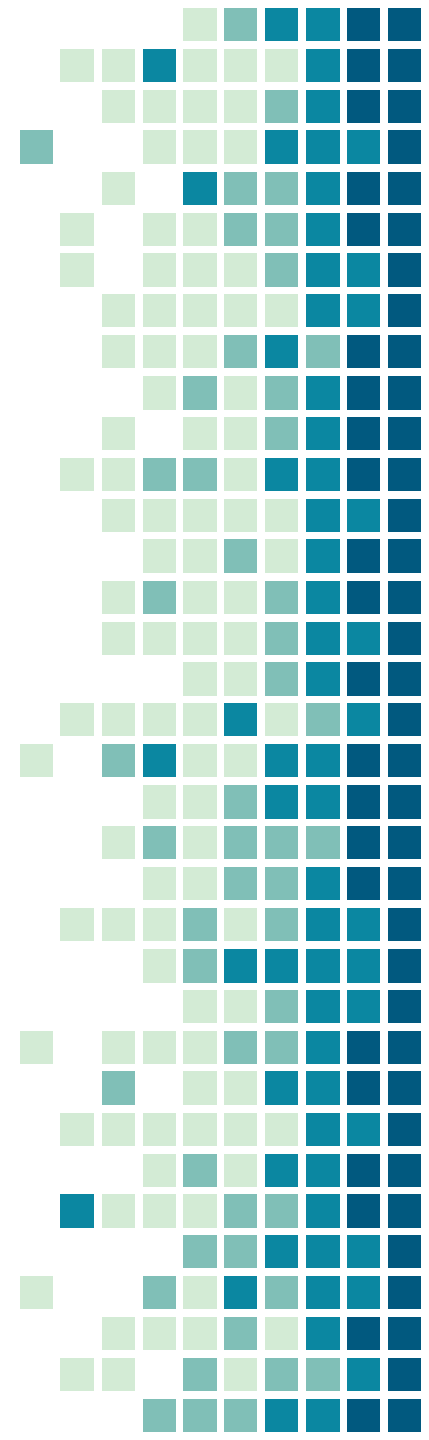


Thinking Skills



Screen Time

Only for over 2s**



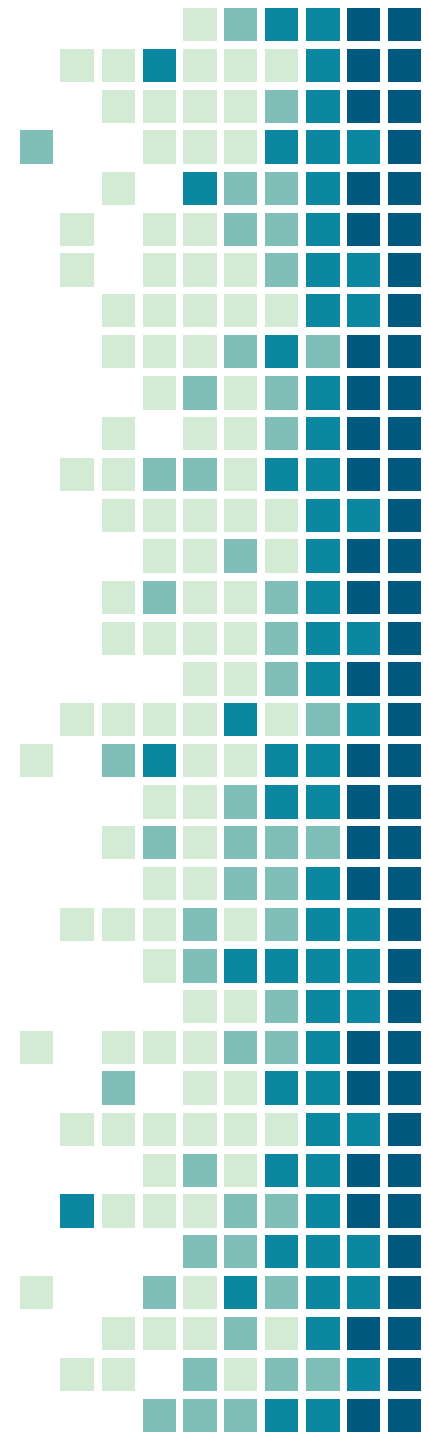


ECEC Language & EF



Social gradients

Screen use



Receptive Vocabulary

*Lower-SES



Thinking Skills

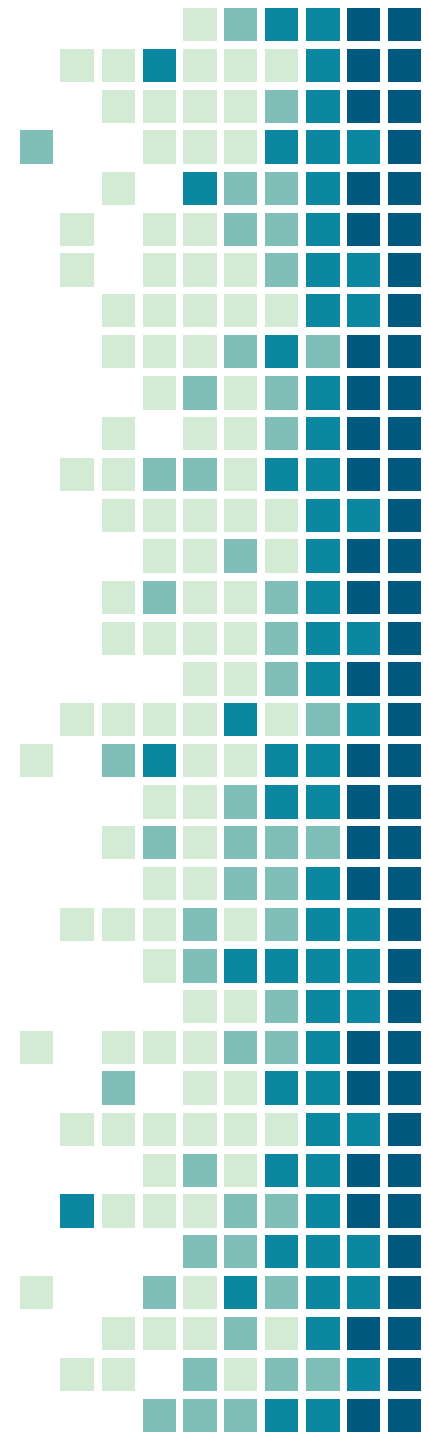


Parent-Child Interactions

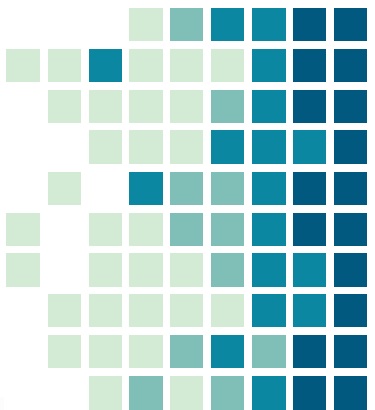
Parental
sensitivity



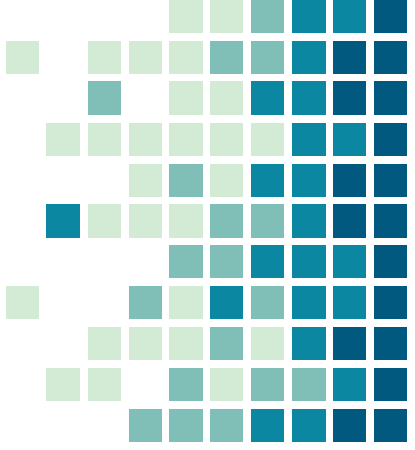
Interaction
quality



Expressive Vocabulary



Enriching Activities

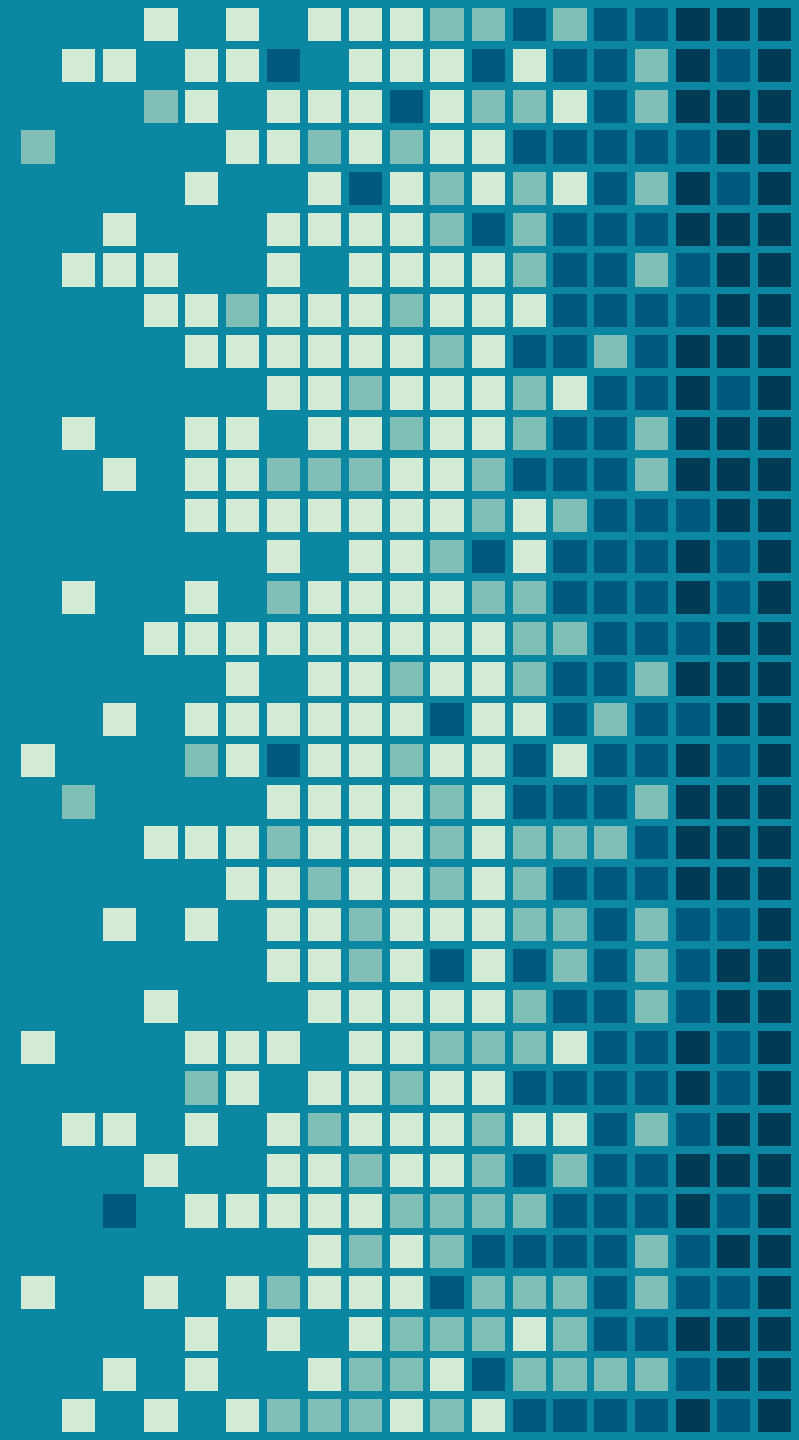


Parental sensitivity





Parental Mental Health



Parental Mental Health

Stress



Anxiety



Depression



“...Some times it all gets on top of me... working plus childcare and I have down days as everyone does. They aren't often, but there is nowhere to go and no friends to see to help reduce stress. On these days I notice she seems more stropky, moody and cries more. I worry that is because she picks up on my stress and the impact that has on her.”

adients

Main stressors (Preliminary T4)

Household chores/tasks

Work (even if you feel your job is safe)

My future plans

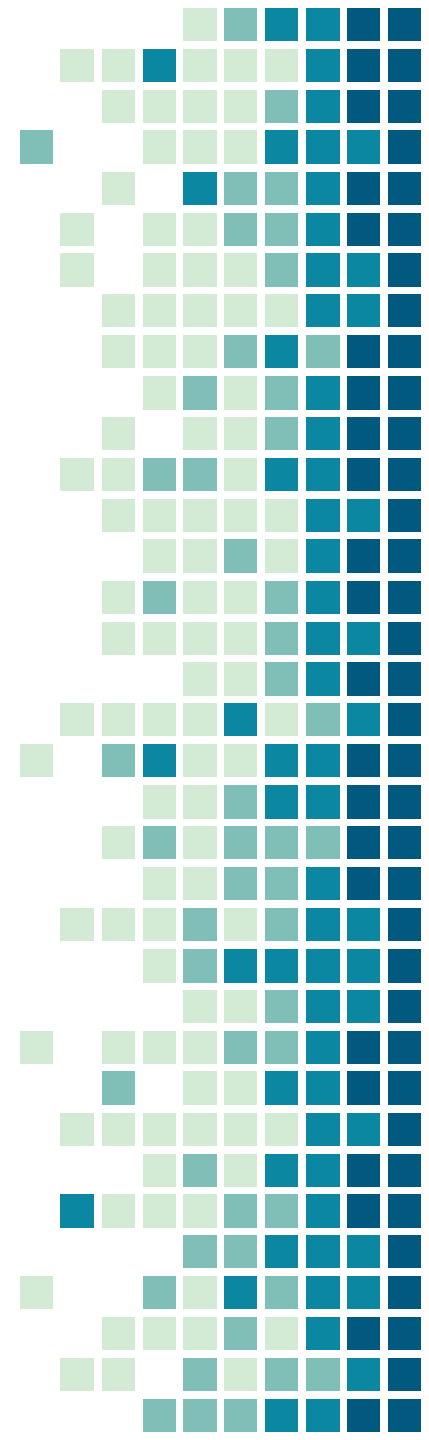
My child(ren)'s behaviour

Finances

Loss of usual support systems

My child(ren)'s screen time

My child(ren)'s future

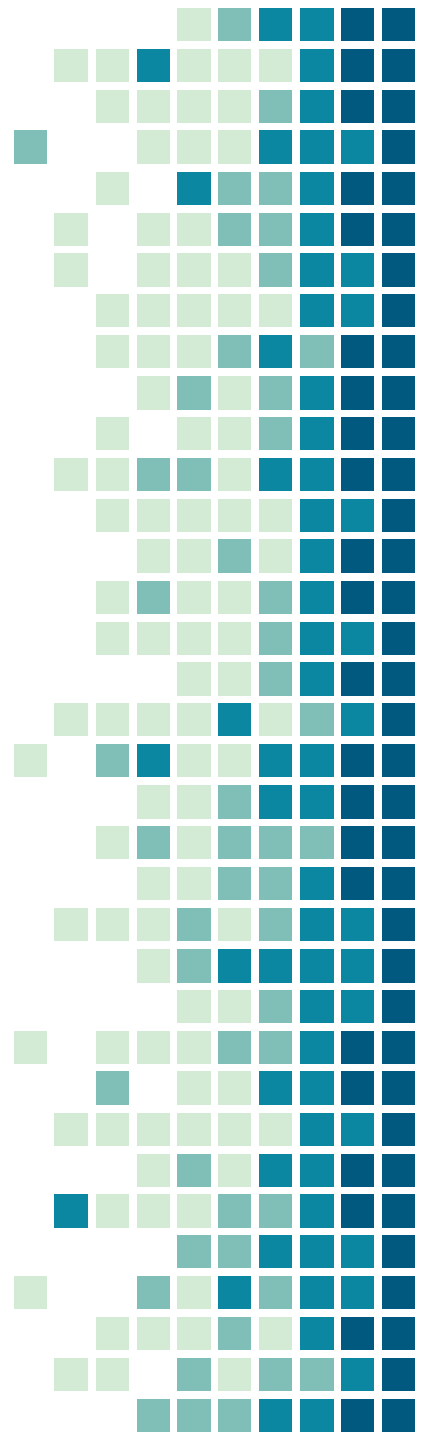


Spring 2020

Across
2020
Pandemic



Differences between boys and girls

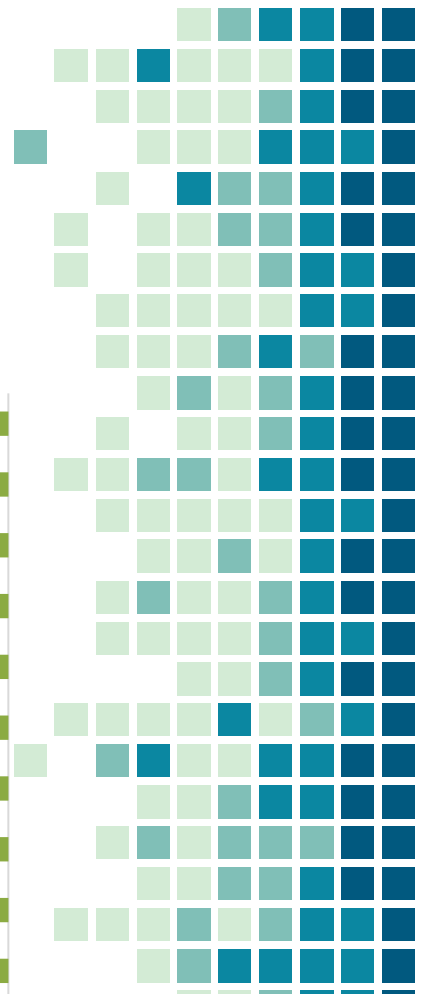


Parental Perceptions on the Effects of Lockdown



The effects of lockdown and Social Distancing on...

(Preliminary T4)

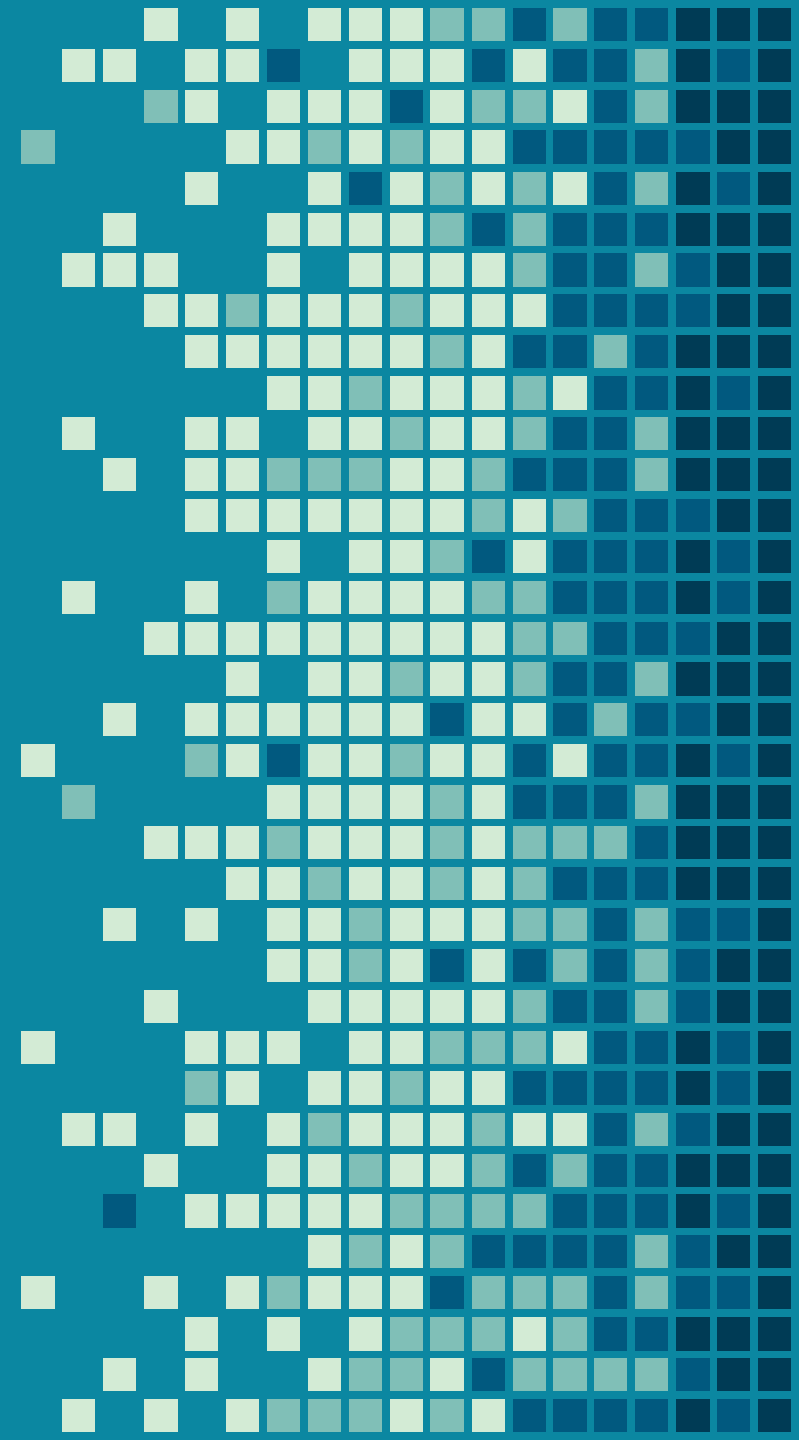


“Developed fear of strangers. Particularly men. If a man starts to try and talk to her she becomes incredibly scared, panic crying, hiding her face in me...”
“His emotional well-being has taken a huge hit. He cries much more frequently and has numerous tantrums each day. He smiles a lot less than before...”

“We were astonished by the improvement in our daughter’s mood, behaviour and development during lockdown. She is so much more settled than she was at nursery. Her language has improved extraordinarily in a way that a vocabulary test alone doesn’t show - the fluency of her speech and her use of grammar have improved to a remarkable degree simply from the fact she has had direct communication with an adult nearly all the time.”



Summary & Discussion



Summary & Discussion

■ Enriching Activities and SES

- Pre-Lockdown  Low and High SES
- Peri-Lockdown  Low and High SES

Outdoor space and Books access



DfE's surveys

Summary & Discussion



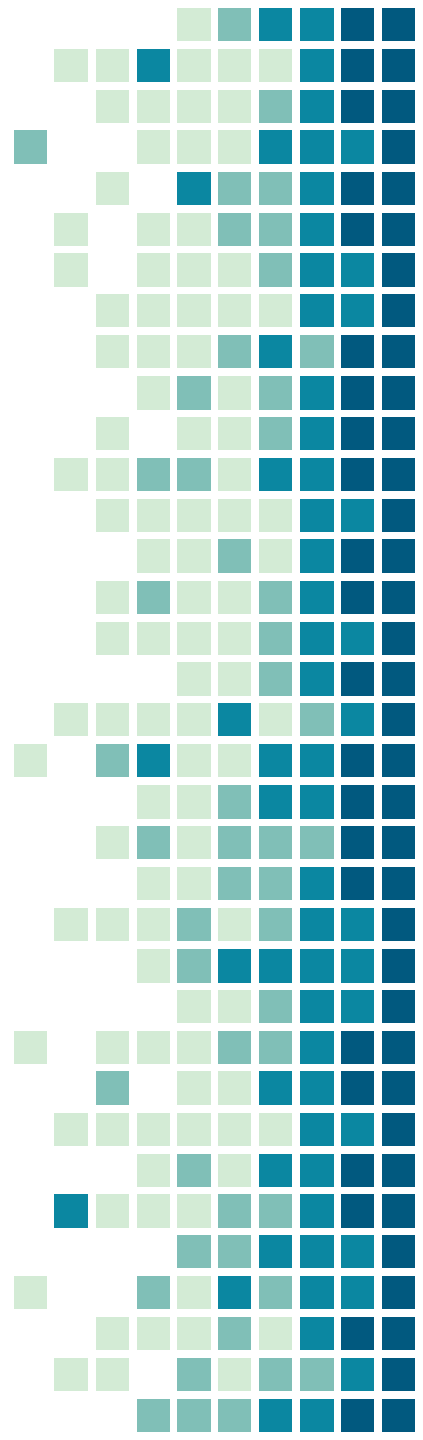
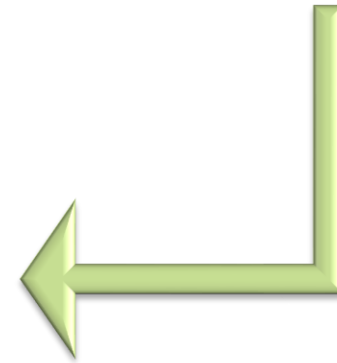
+ Language Growth



+ Enriching
Activities



- Reading a book
- One-to-one speaking
- Arts and crafts
- Indoor exercise



Summary & Discussion

- High early EF scores

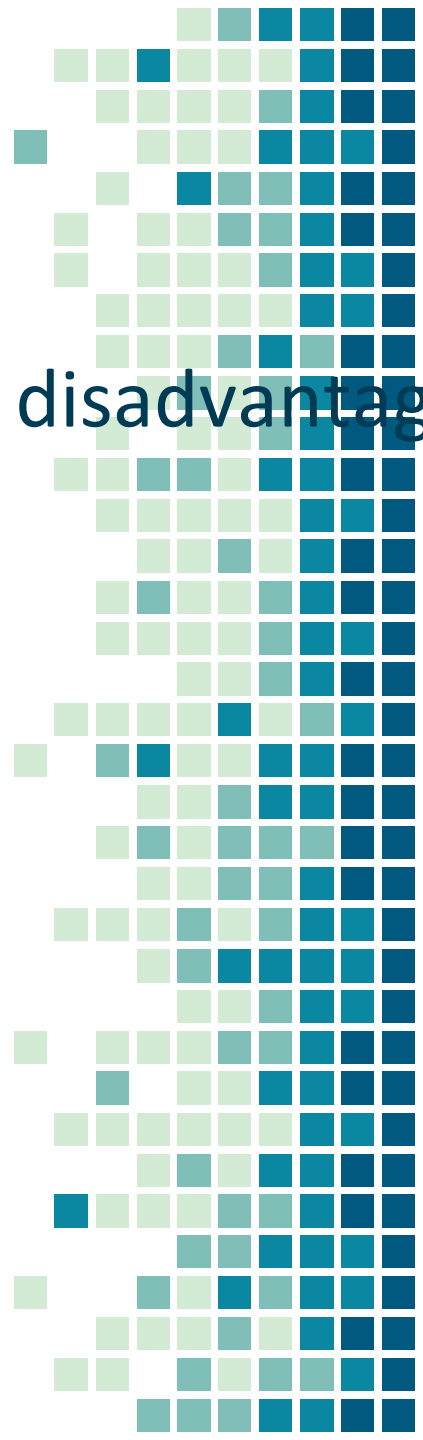
were associated with:

— screen use +
+ parental warmth —
+ enriching activities with their parent —

Poorer parent-reported EF



- Peri-Lockdown SES disadvantage



Summary & Discussion



- disrupts sleep quality
- underdeveloped coping mechanisms



Over 2s:

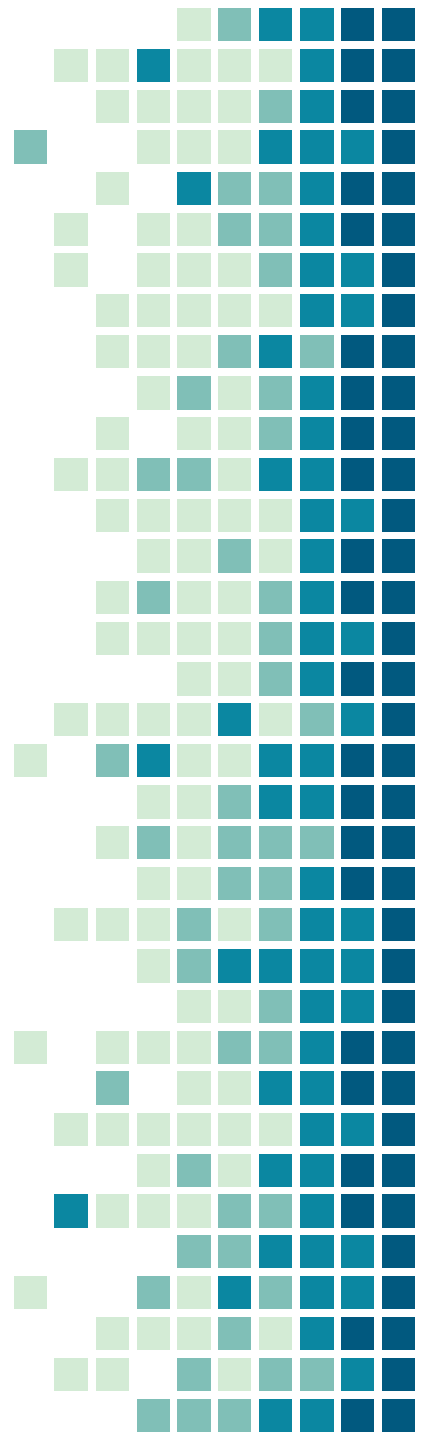
- age of exposure vs duration of exposure
- cumulative detrimental effects

Summary & Discussion

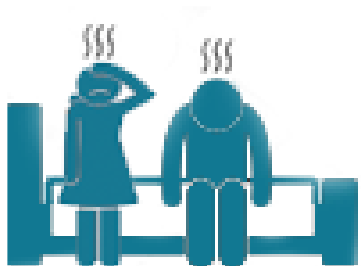


+ ECEC attendance:

- Language skills → Lower-SES
- Thinking skills +

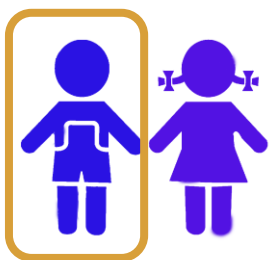


Summary & Discussion



High levels of depression stress and anxiety among parents

More disadvantaged parents



Regulation

~~Cognitive EF~~

~~Language Outcomes~~

DfE's surveys

Pierce et al. (2020)

Babies in Lockdown

SEED Study

Summary & Discussion

Lockdown(s) &
Social Distancing policies



Social Skills



Emotional Control



Practical Skills

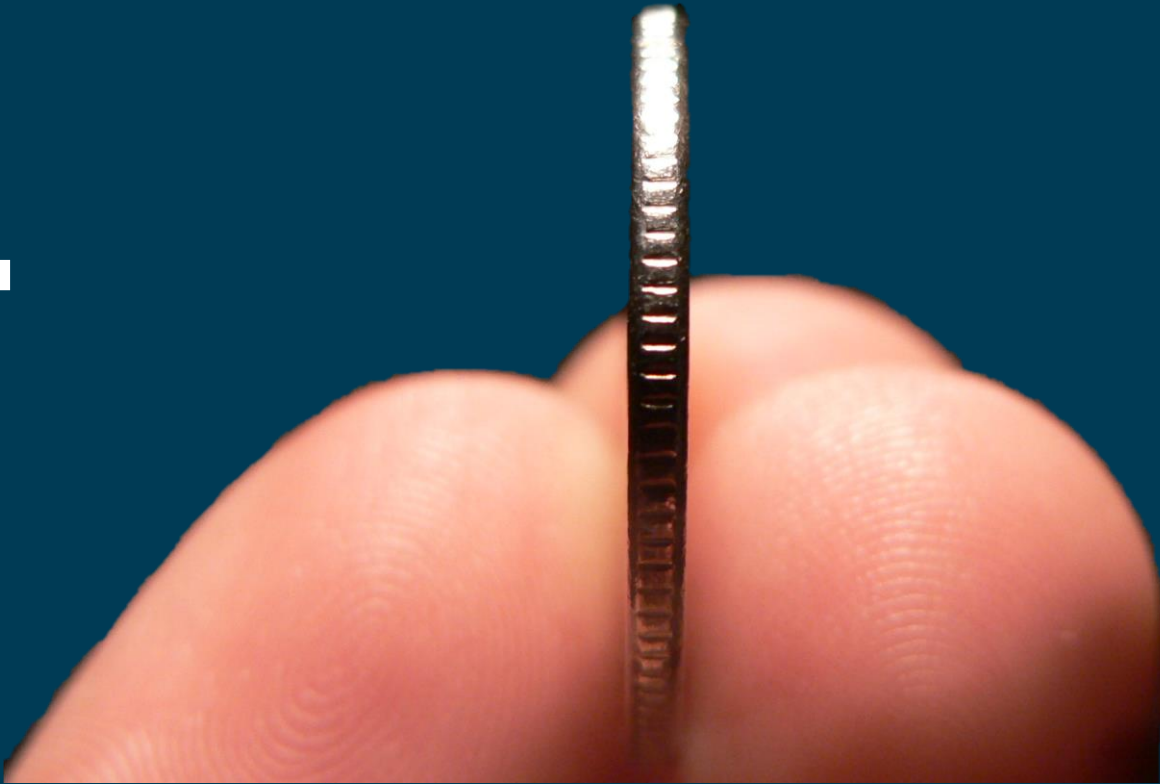


Babies in Lockdown

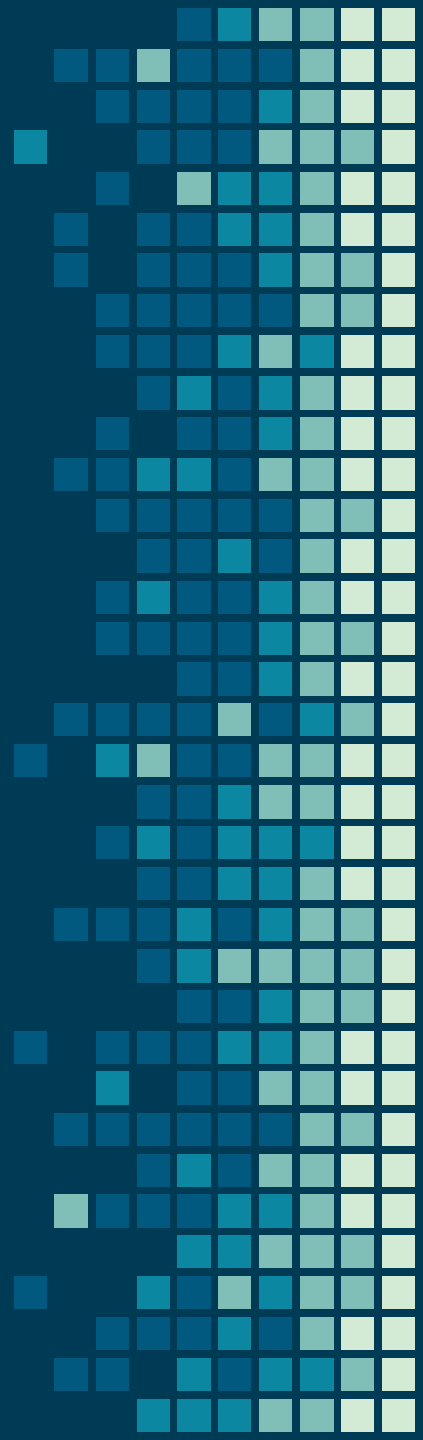
Ofsted EYs report

Lockdown

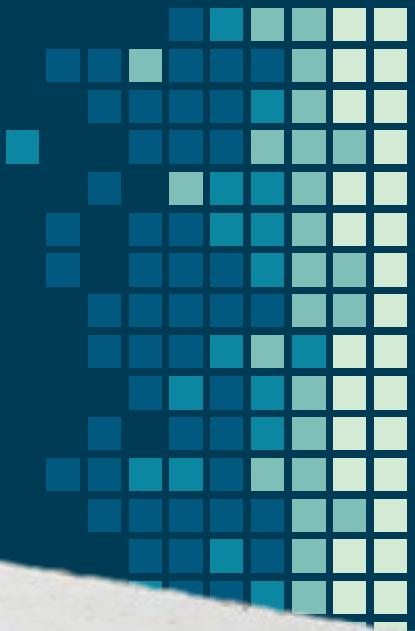
+



-



MIND THE GAP

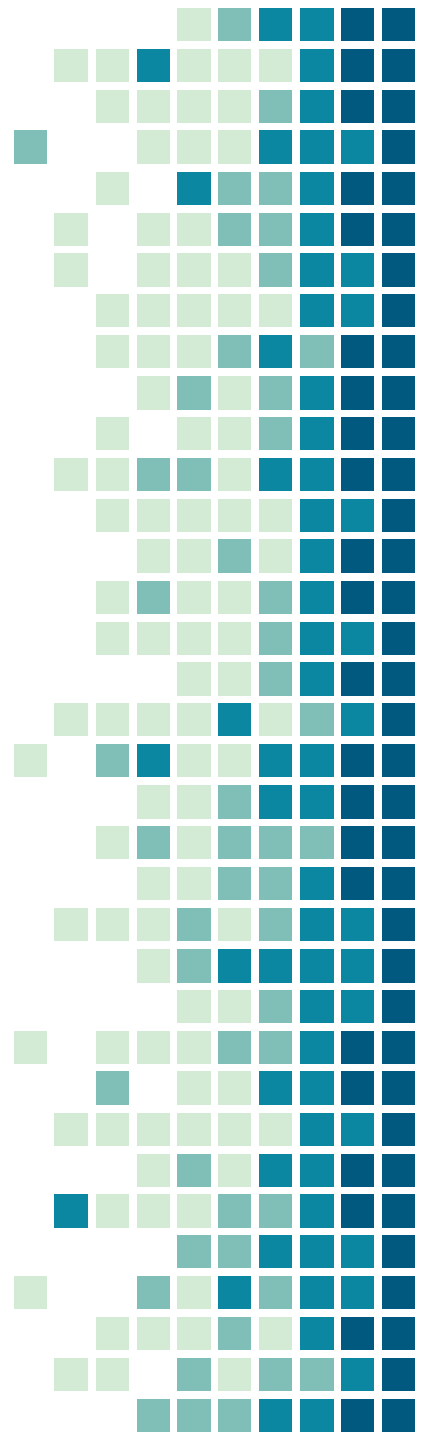


The image shows a perspective view of a road with yellow triangular markings. The text "ROAD TO RECOVERY" is written in white, bold, italicized capital letters across the lower part of the road. On the right side, there is a vertical decorative bar with a grid of blue and white squares.

*ROAD TO
RECOVERY*

Recommendations

- Promoting and supporting family engagement in enriching activities.
 - Paid leave
 - Access to books
 - Access to outdoor space



Recommendations

- Encourage nursery attendance
 - High-**quality** education
 - Source of enriching activities
 - Enhance children's communication environments
(Roulstone et al., 2011)
 - Improves children's cognitive and socio-emotional outcomes (Sylva et al., 2004).

The logo for the SEED Study, featuring a grid of squares in various shades of blue and green, with a yellow rectangular box containing the text "SEED Study" in black.

Recommendations

■ Semiformal support networks (e.g., playgroups) actively encouraged and resourced.

- Source of enriching activities
- Promote child health
- Self-managed peer support
- Links to formal support

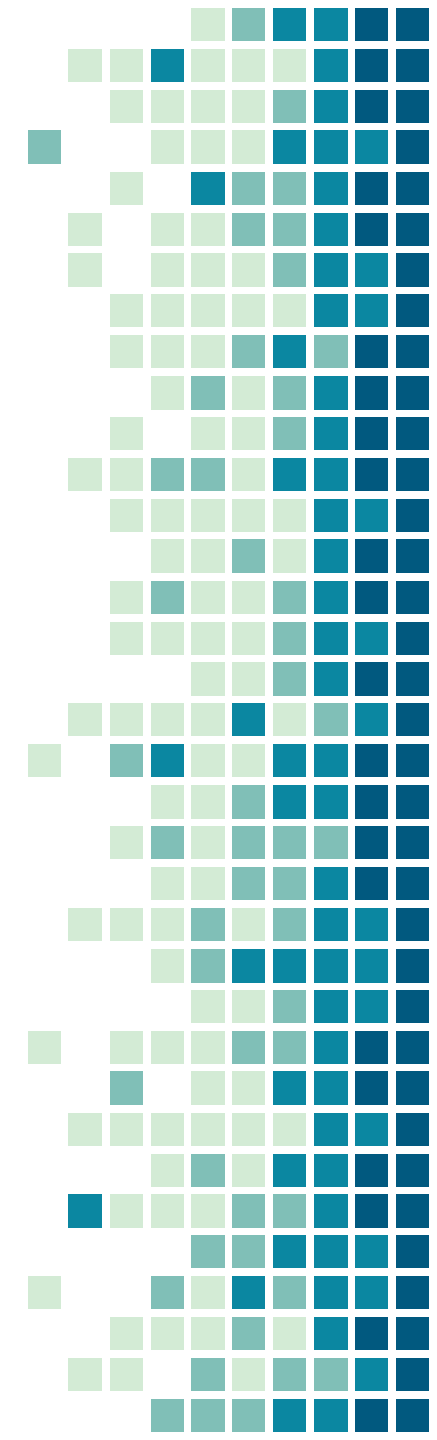


FaHCSIA, 2011

CFCA, 2016

Recommendations

- Targeted **early** interventions for infants at risk for later difficulties.
 - **Earlier the better: Detection and Intervention**
 - **Early Language** (e.g., ELIM, Growing Minds initiative)
 - **Early Executive Functions** (e.g., Pilot intervention)



Recommendations

- Providing mental health support for parents.
 - Raising awareness
 - Providing advice
 - Soft entry points
 - Partnerships with mental health charities



DfE's surveys

Pierce et al. (2020)

Babies in Lockdown

SEED Study

Follow up

Parent-Child interactions

Lockdown Activities

Language Development

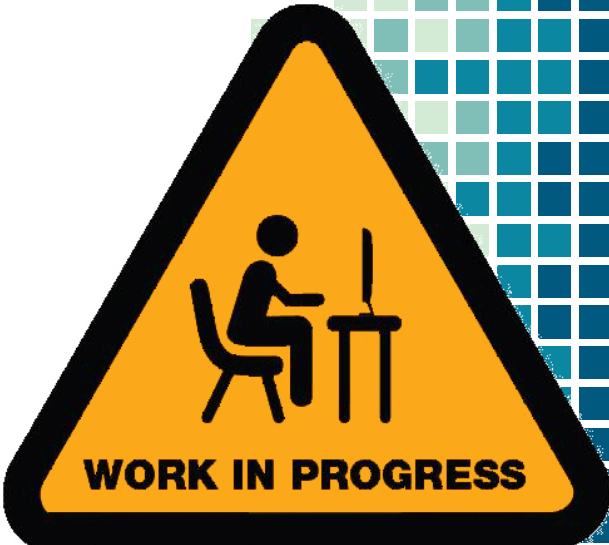
Executive Functions

Parental Mental Health

SES

Child's Sleep

Longer-term effects





Shannon Gibson

- Catherine Davies
- Teodora Gliga
- Alexandra Hendry
- Michelle McGillion



UK Research and Innovation's rapid response to COVID-19
(ES/V004085/1)



Global Language
Covid team

Diolch yn fawr iawn!

ngonzalez-gomez@brookes.ac.uk

<https://babylab.brookes.ac.uk/research/social-distancing-and-development>

