

# Parent support for very young children's interaction with digital technology

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# Background

- Parents scaffold children's learning during everyday interactions
  - Offer more support when children encounter new or difficult tasks
  - Withdraw support as children become more expert
  - Transfer responsibility
- Very young children are increasingly frequent users of mobile technology



# Meaningful interaction?

- Do touchscreens afford children a more developmentally appropriate means of interacting with digital content?
  - Sensorimotor exploration
  - Direct means of input
  - Cause and effect



# Observation study

- 18 infant-parent pairs observed in the lab
  - 10 months – 2.5 years
- Free play with toys (child alone)
- Tablet play (parent-child)
- Meaningful interactions?
  - Perhaps but dependent on parental scaffolding

# 10 months



# 11 months



16 months



# Study 2 – Parental scaffolding

- 27 infant-parent pairs observed in the lab
  - 29 months – 46 months
  - Mean 37.41 (SD: 4.89)
  - 14 girls, 13 boys
- Etch-a-sketch task
  - Toy condition followed by App version (tablet)
  - 3 minutes of play in each condition
- Technology at home questionnaire





# Toy version



# Tablet version

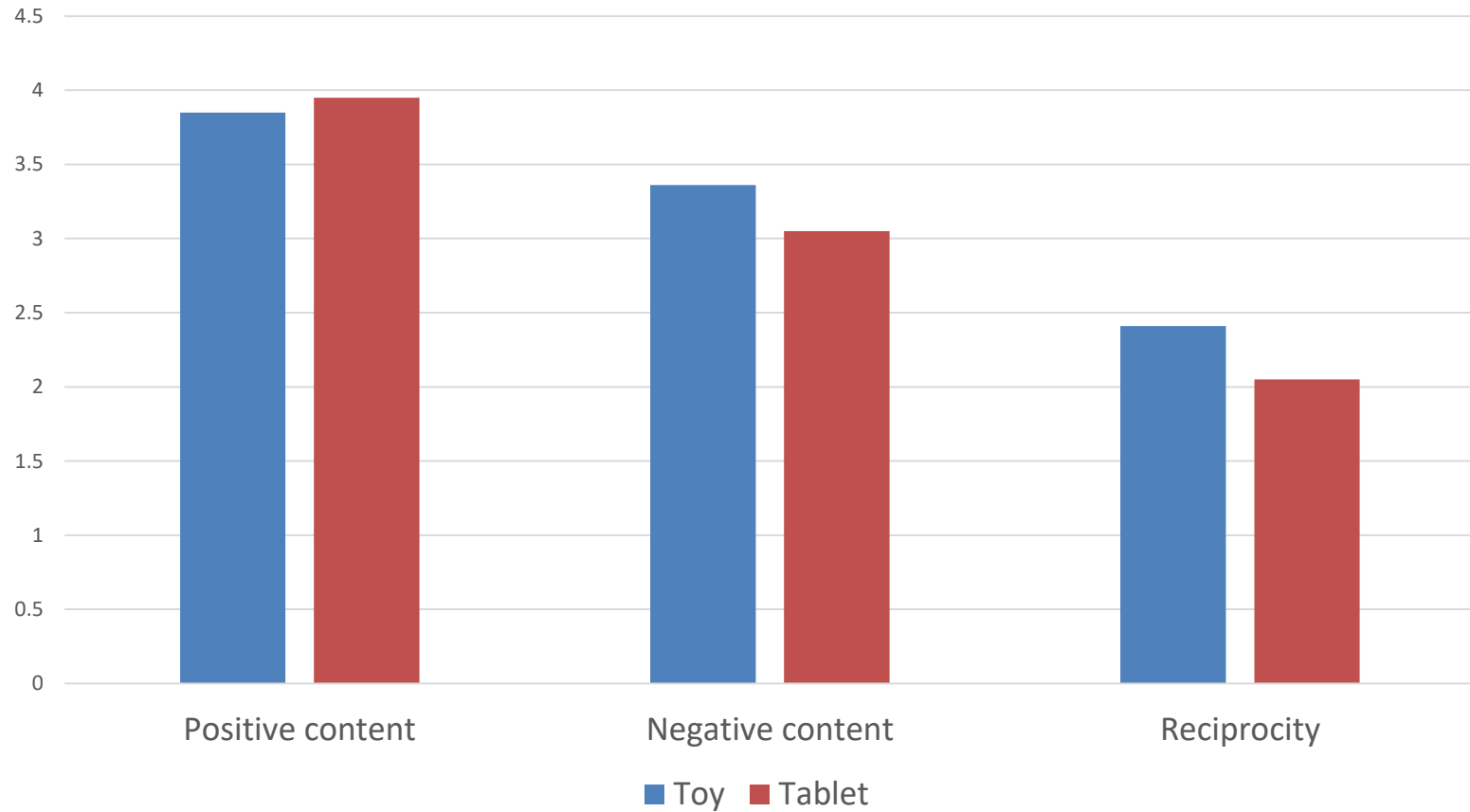


# Coded interactions

- Parent support - positive and negative content
- Shared positive affect (reciprocity)
- Shared negative affect (conflict)
- Verbalisation
- On Task (child)

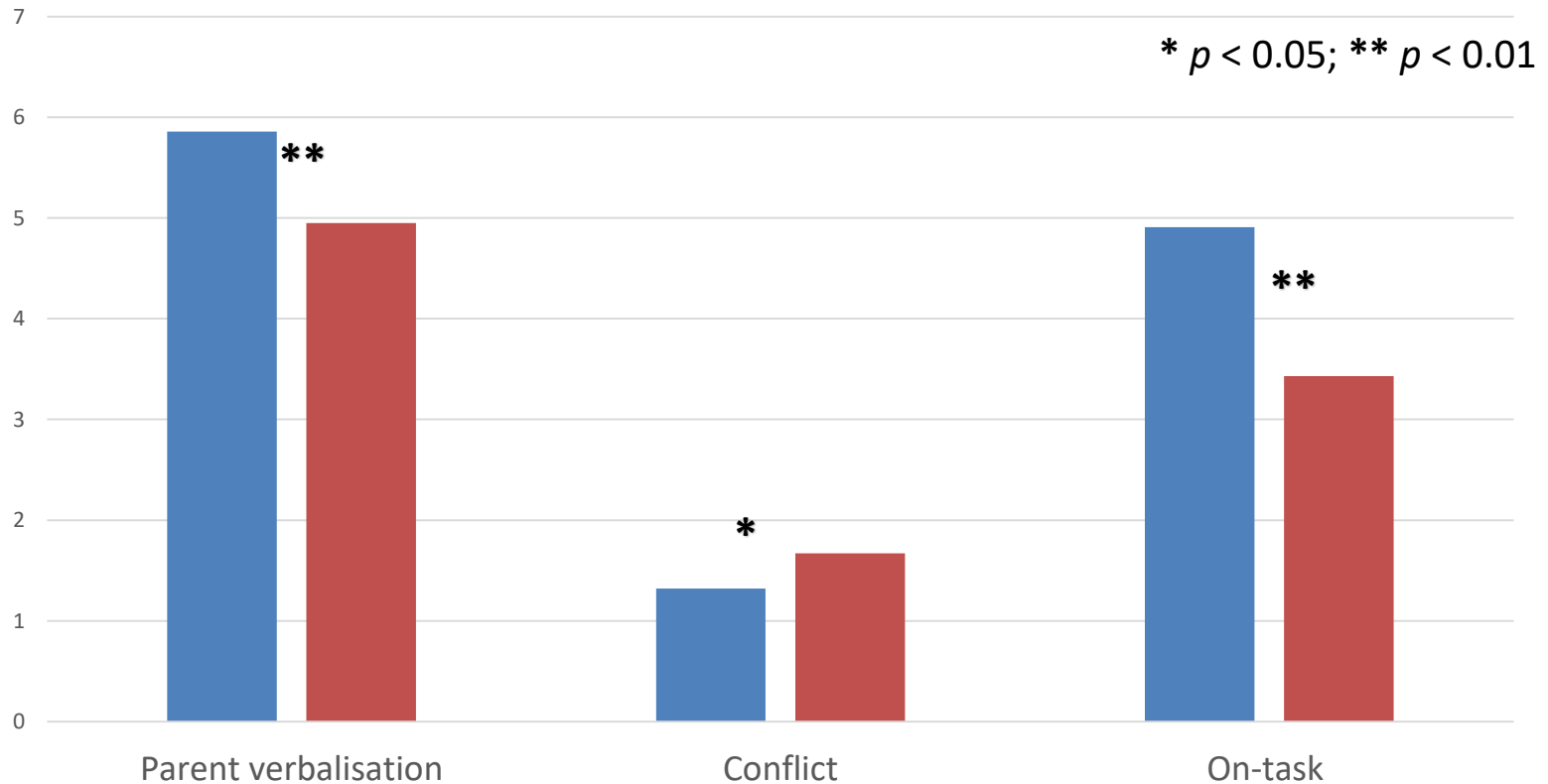
Whole 3 minute  
interaction coded  
on a scale of 1-7

# Parent support and shared positive affect



No difference between conditions

# Parent verbalisation, share negative affect (conflict) and child on-task



Tablet condition – less verbalisation, higher conflict and lower child on-task behaviour

# Why the difference?

- Tablet version was perceived as more difficult therefore higher conflict as more frustration

But...

- More difficult tasks should be associated with **more** not **less** parental input (e.g., verbalisation).
- Next steps:
  - More fine-grained analysis of interaction
  - Examine questionnaire data

# Conclusions

- Young children's meaningful interaction with digital technology largely dependent on parental scaffolding.



- However, this type of scaffolding may be more challenging for parents than more traditional toy play.

# Thank you

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LEARNING  
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