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Click-East: Teaching Social Attention Skills using an iPad App

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Click-East

Teaching Social Attention Skills to Young Children with Autism using an iPad App

Sue Fletcher-Watson
Helen McConachie
Anne O'Hare
Helen Pain
Sean Hammond



Outline & Context

- ◆ Background
- ◆ Click-East development
- ◆ Click-East RCT
- ◆ Future research directions

Background



- ◆ Development of social attention
 - ◆ Attention to people
 - ◆ Following gaze and pointing
 - ◆ Foundation of social and communication skills

Design and Pilot Process

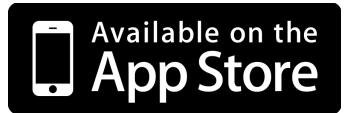
- ◆ Classroom-based participatory design
 - ◆ Building pictures: familiar versus exotic? People, animals, objects?



Design and Pilot Process

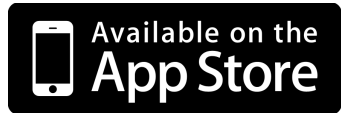
- ◆ Classroom-based participatory design
 - ◆ Building pictures: familiar versus exotic? People, animals, objects?
- ◆ Pilot tests: playgroups, nurseries, homes
 - ◆ Best motivation techniques
 - ◆ Accessible to non-verbal / very young children
- ◆ Advisors: teachers, parents, therapists, adults with ASD
 - ◆ Use-ability, family-friendly, trial design
- ◆ Expert input: LaerLab, Steering Group
 - ◆ Interface, structure, data recording

Fletcher-Watson, Hammond & Pain, in prep, JADD



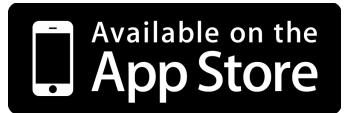
The App: attention to social things

Demo video here:
app part 1



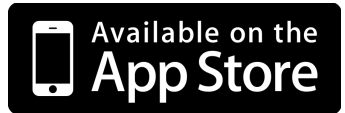
The App: following social cues

Demo video here:
app part 2



The App: reward options

Demo video here:
rewards



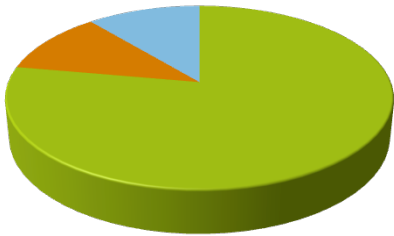
The App: what do kids think?

Demo video here

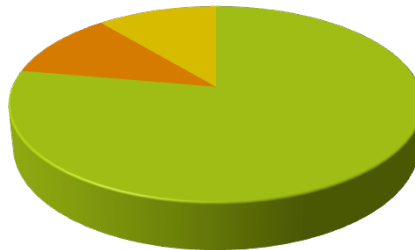
The App: what do parents think?

What did you think of the app?

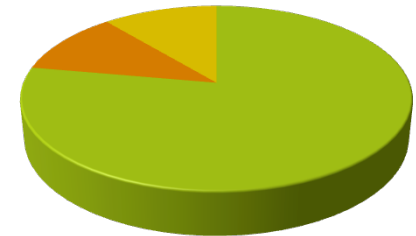
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n=9



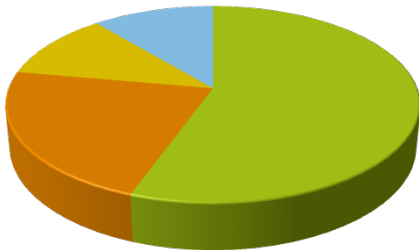
Easy to play



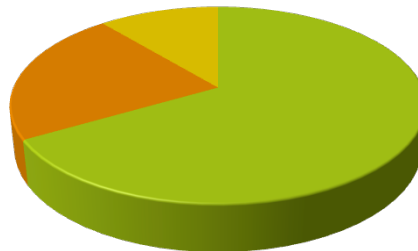
Accessible



Appealing



Fun



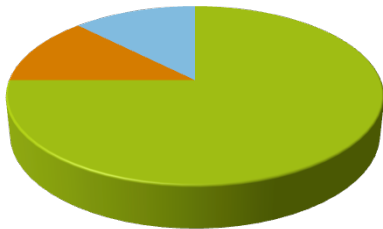
Attractive



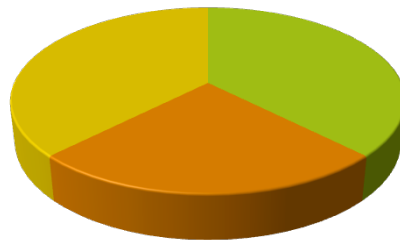
The App: what do parents think?

Do you think your child...

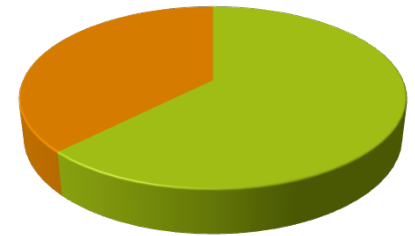
14000 downloads
n=9



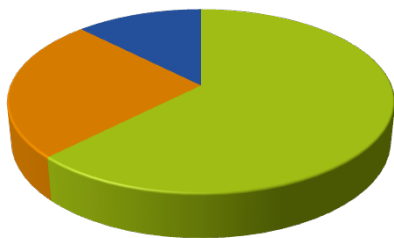
Enjoyed playing



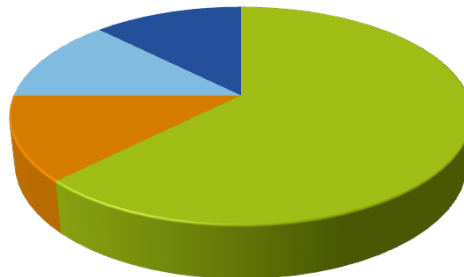
Learnt something new



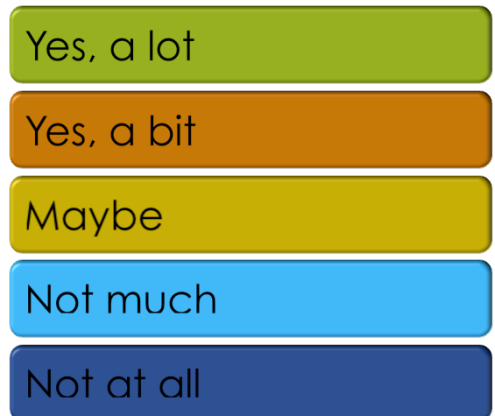
Played for > 5mins



Easily understood



Benefitted



The App: what do parents think?

Photo here

I wasn't sure if he would like it at first but he LOVES it! It is one of the few apps he wants to play every time he has the iPad!

...we were very impressed by the uncluttered screen, and the gentle, calm tone. Veronica loves apps she can figure out for herself ...

as soon as she sees the iPad come out she sits next to me ... and wants to play this game. I have enjoyed watching her have longer periods of concentration with this game. very well made, simple yet effective!

...he will often just go and click on the app when he wants some "chill out" time....

The App: is it really any good?

- ◆ Randomised controlled trial
 - ◆ 60 families: intervention now or later
 - ◆ Children aged under 6 years old; largely non-verbal
 - ◆ Assessed before and after intervention period, plus at six month follow-up
 - ◆ ADOS, language, parent-child play
 - ◆ Expected completion: June 2013
- ◆ Publication on the app store (full version)

Moving forward: A-Ware

A-Ware: Software Development for Children with
Autism Spectrum Disorders
An Interdisciplinary and Industry Network

- ◆ One day event in Edinburgh
- ◆ Input from academics, parents, teachers and industry
- ◆ Knowledge Transfer funding / PhD studentship
- ◆ Developing a suite of apps for young children with ASD
- ◆ Clinical trialing of all new output

<http://www.clickeast.co.uk/about/software-for-autism-event>

Questions & feedback?

www.clickeast.co.uk