eLearning Forum Asia 2016

Linking learning technologies with learning science

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Transference of Learning from Play with iPads in Early Childhood

Gretchen Geng | Leigh Disney | Jon Mason

gretchen.geng@cdu.edu.au

School of Education, Charles Darwin University, Australia

CHARLES DARWIN UNIVERSITY

Overview

- Educational media & early childhood educators
- Digital play-based learning
- Touch Screen Technology, Gestural Interface & iPads
- Research Methods
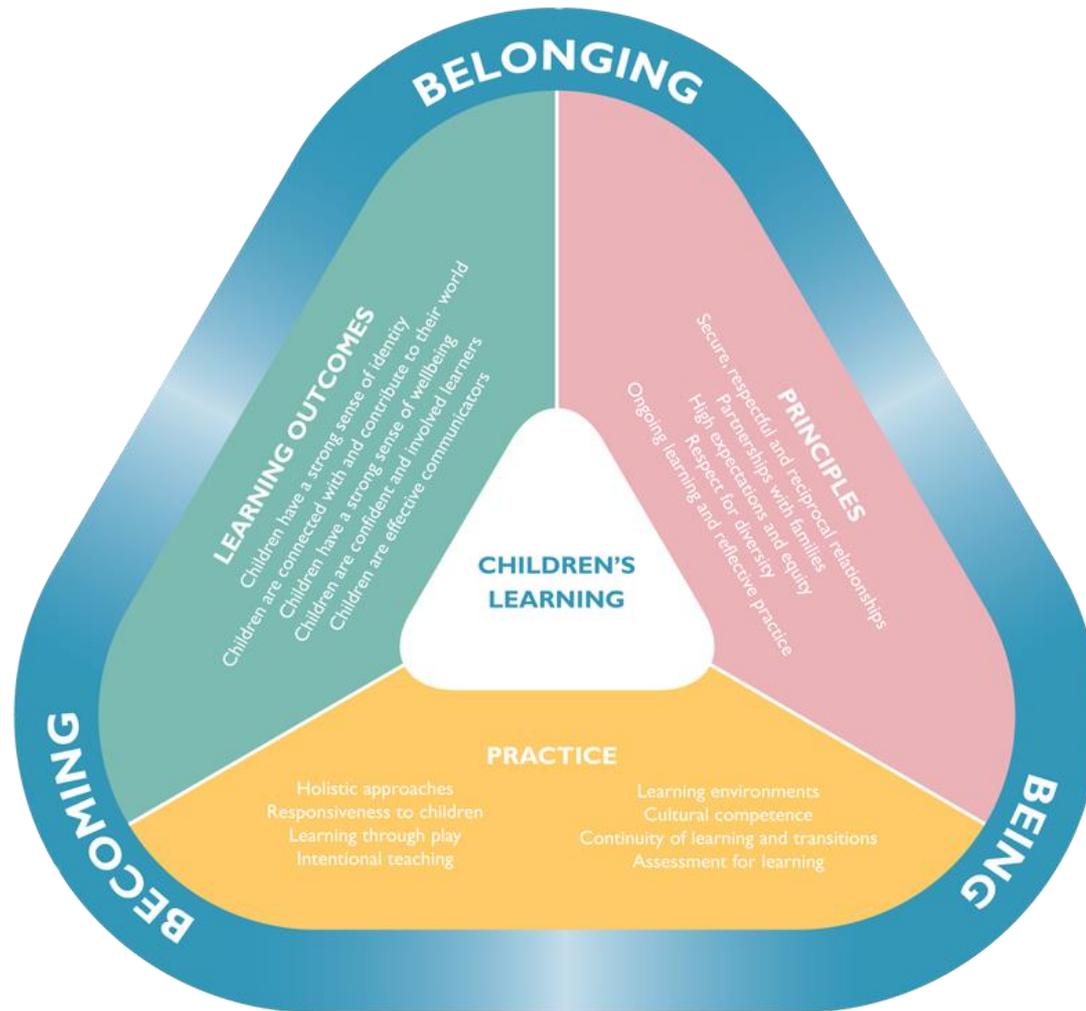- Findings
- Conclusions
- Questions

Educational media &
early childhood educators

- Play-based learning

- Educational media

- Digital play – dynamic

- Transference of learning

- Early Years Learning Framework

- Early childhood educators

Early Years Learning Framework

Play-based Learning

"for the EYLF to be implemented properly, all early childhood educators need to know what play is, why it is important, how to implement and assess a play-based program and their role in it"

Play Enables Children

- Explore
- Identify
- Negotiate
- Take risks
- Create meaning
- Make sense of their social worlds
- Actively engage
- Curious & creative

Touch Screen Technology, Gestural Interface & iPads

EDUCATION FUTURES:
Emerging Trends in K-12

OPINION

« Why Asian-Minority Data Need Better Division | Main | Chicago Kids Join Michelle Obama in Art-Expansion Event »

iPads in Education: Tool or Toy?

at Ouse and caused major damage to property and stock.
The cloud-seeding also was

were saying significant rain between 80mm to 100mm or more," said Wayne Johnston, president of the Tasmanian Farm-

With flood damage to stock and property estimated to top $100 million, it was possible farmers and other property owners, including local government, could

"seeded" month. even a small culpability might prove significant, given the scale of the damage bill.

in effect for the Upper Derwent the time of the flight," a compan

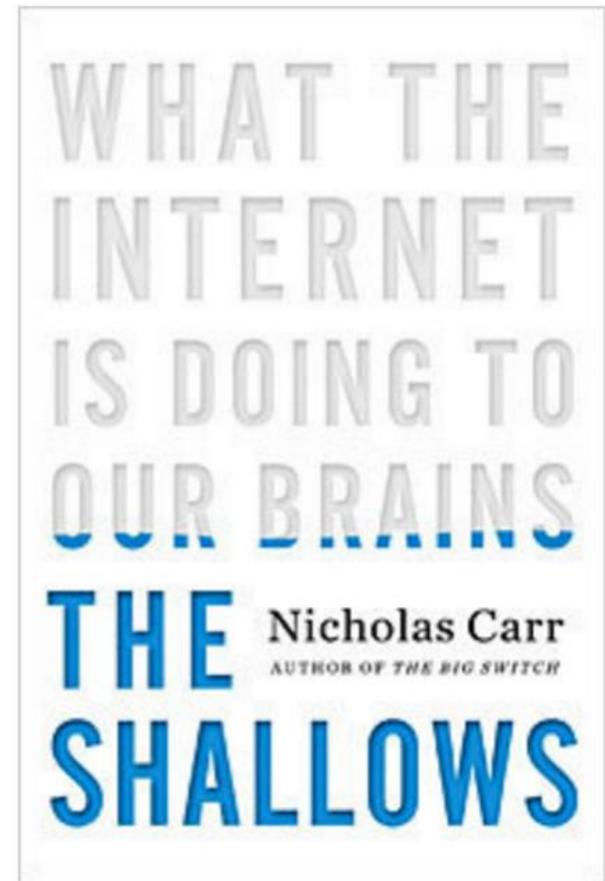# School told girl, 5, 'you're out if you don't have iPad

Viewpoint & Debate

Digital Candy vs Digital Broccoli

Try reading a book while doing a crossword puzzle, and that, says author Nicholas Carr, is what you're doing every time you use the Internet.

Carr is the author of the *Atlantic* article Is Google Making Us Stupid? which he has expanded into a book, *The Shallows: What the Internet Is Doing to Our Brains.*

IT → Interruption Technology

Touch Screen Technology, Gestural Interface & iPads

Research Methods

- Children interacting with iPads

- Children expressing themselves

- Observation without direction or intervention

Research methods

- Observational case study
- Children's drawings were used as an assessment method against their learning outcomes
- Children's drawings were used to assist teachers in examining the beliefs and values underlying their pedagogical practices
- Five children (3 females and 2 males)
    - Child A, B, C and D: 3 years -> 3 years and 7 months old
    - Child E: 2 years and 5 months old
- Data collected in five quiet household in Australia and China in From Feb to Dec, 2011.

Procedure

- Each child was invited to play an iPad game/program called *Animals 360*. Each child was allowed 30 minutes to play the game.

- After the 30 minutes, they were asked to draw a picture of a cat with pen and paper.

- Observation was undertaken with the minimum of disruption during the procedure.

- Children were allowed to talk and interpret their drawings during the period. Notes of children's answers were taken.

Findings

- Four children out of the five played the iPad game continuously for 30 minutes, while the youngest child (Child E), who was 2 years and 5 months, only spent approximately15 minutes on playing the game.

- All of the five participants demonstrated their understanding of the image of a cat in the iPad game, by pronouncing clearly and correctly the word "cat" while playing the game and drawing their cats.
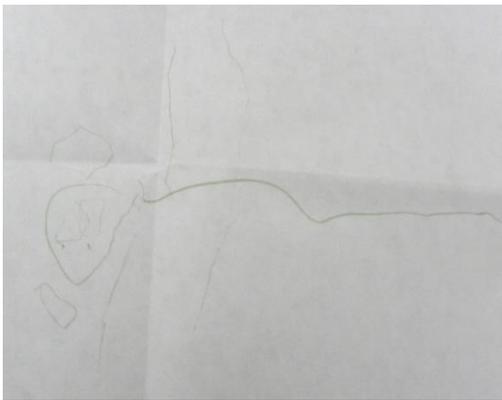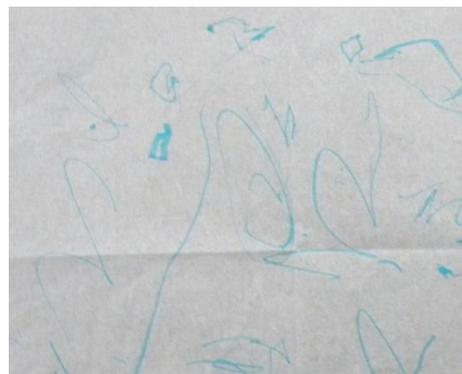
Findings

Child A

Child B

Child C

Child D

Child E

Findings

- Child A did not draw a clear image of a cat (see Figure 1), and said "my cat was moving around and jumping". She was drawing a cat's movement instead of a still image. This showed her perception of a cat was not just in 2D image – she had transferred her learning from playing with the iPad into a 3D cat's trace of moving.

- Child B and Child C's drawings show more clearly a cat's face. Their cats had eyes, mouth and nose. Child B also drew some hair of her cat & said "my cat's hair is flying". Child C's drawing had eyes, ears, legs, and even whiskers. In comparison, Child D emphasized his understanding of cat's head and tail (see Figure 4).

- Child E was the youngest of the all the participants and his drawing lost traces of a cat (see Figure 5). When asked to interpret his drawing, he could not explain it

Conclusions

- Young children over 3 years old had the ability to understand their learning from playing with an iPad & transfer it from 2D sources to 3D depictions.

- Children under 3 years old?
  Not a big enough sample – but in this observation the ability was not as fully developed as others.
  Can be explained in terms of language development.

Conclusions

- **Touch screen technology** on tablets such as iPads can provide young children with access to practical and educational information about learning via an individual or personal media platform like books.

- Although the children demonstrated their understanding of a cat, none of them drew a whole cat image.

- Young children could learn and develop their cognitive skills while playing with an iPad individually – although this might not help them learn or grasp the knowledge completely or correctly.

- When the children were exposed to a variety of different experiences of learning, such as touch screens, their understanding is further developed when they experience multiple representations, such as language cues. Together, these cues can be seen to facilitate their **transference of learning**

有问题吗？