Moving beyond technology

How can we achieve high-quality pedagogy with digital technology tools

Michelle Gregory

- Engagement and Professional Development Specialist – Early Start, University of Wollongong

- SMART accredited trainer
- B. Ed (Early Childhood)
- Masters in Research
- Interested in the use of technology to overcome distance barriers in early education and open a world of opportunity to young children
- Mum of three

Fay Gowers

- Community Engagement and Research Coordinator - Early Start, University of Wollongong
- Lecturer and Tutor, The Early Years, School of Education, University of Wollongong
- Bachelor of Teaching – Birth – 5 years
- Master of Education – The Early Years
- Interested in quality early learning and effective use of pedagogy as pathways to positively influence children's outcomes – especially children from disadvantage and vulnerable circumstances
- Mumma of two

About Early Start

Vision

For Children to flourish, be active learners and become engaged members of the society

Early Start Discovery Space

A purpose-built, hands-on learning space that inspires imagination and ignites love of learning

- Over 150 000 visitors since opening
- A team volunteers with a total of 11 604 hours accumulated, as well as student workers
- Over 12,000 preschool and school aged children have visited the space through group excursions since May 2015

"This place isn't a play centre, it's an amazing world of interaction, learning & discovery"

Early Start

Faculty of Social Sciences
University of Wollongong

EARLY START

UNIVERSITY OF WOLLONGONG AUSTRALIA

Early Start Engagement Centres

- 41 autonomous Long-day cares, community preschools and supported play groups
- Predominantly serving low SES communities in regional and rural areas
- High proportion of vulnerable children
- High proportion of Aboriginal children (35%)

NARRABRI WES

Connection:

'The networking potential that comes from Early Start is so beneficial for use in a remote and isolated service'

Community:

'This wonderful, exciting opportunity helps our whole community to grow and be able to embrace and strive for a better start for the children.'

Baseline Project Outline

Phase 1: Directors Survey (2014)
Phase 2: Collection of Child Data (2014– 2015)
Phase 3: Quality Ratings Observations (2016)
Phase 4: Technology Data Collection (2016)

Technology in literature

Rise in the consideration of ICT in early childhood education reforms

Understand research-based pedagogies for using technology with young children

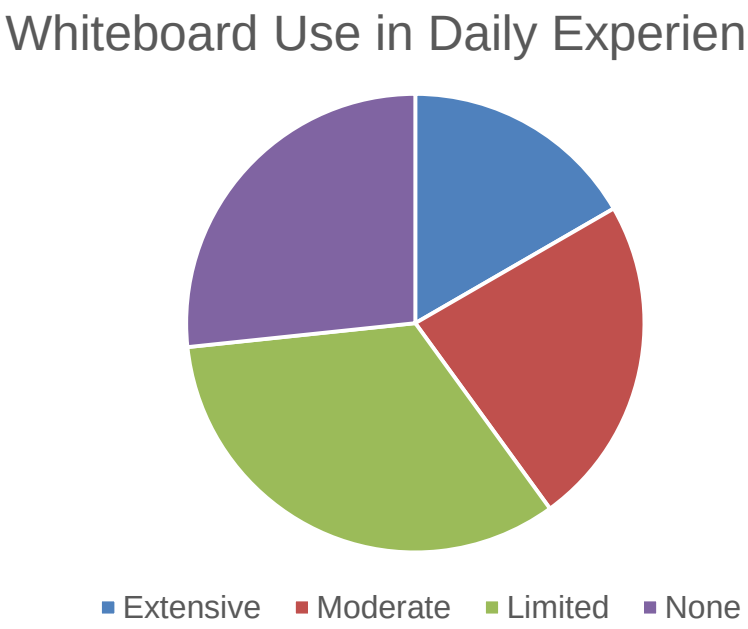
Evaluate usage patterns to allow for growth and development

Methodology

Data Collection Tool

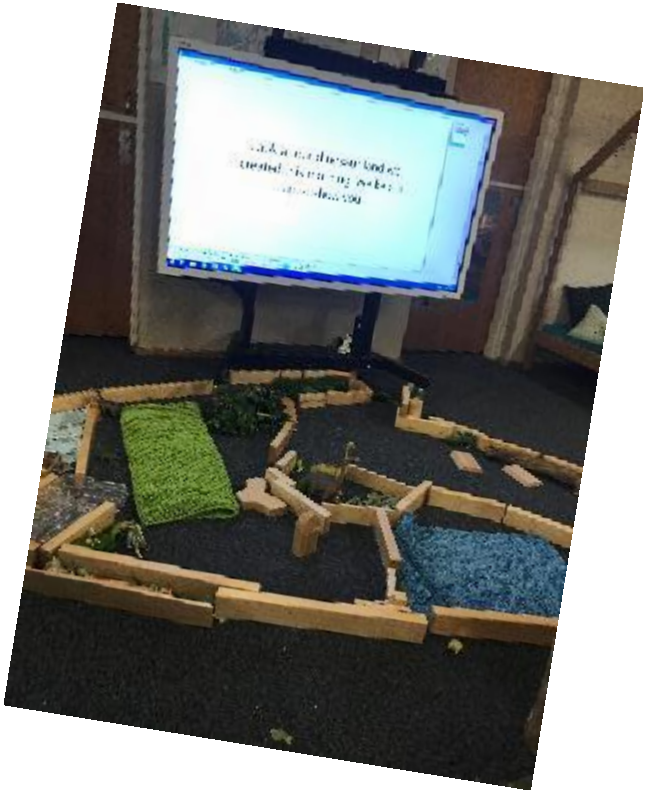
- Observation of technology use in the centre
- Interviews
    - Current uses
    - Changes to educator work
    - Observed changes with children
    - Future plans
    - Views on best uses of technology

Research
Videos
YouTube
Integration
Investigation
Confidence
Internet
Role
Timed
Documentation
Supplement
Sharing
Inquiry
Discussion
Choice
Photos
Broken
Music
Observation
Socialisation
WordItOut

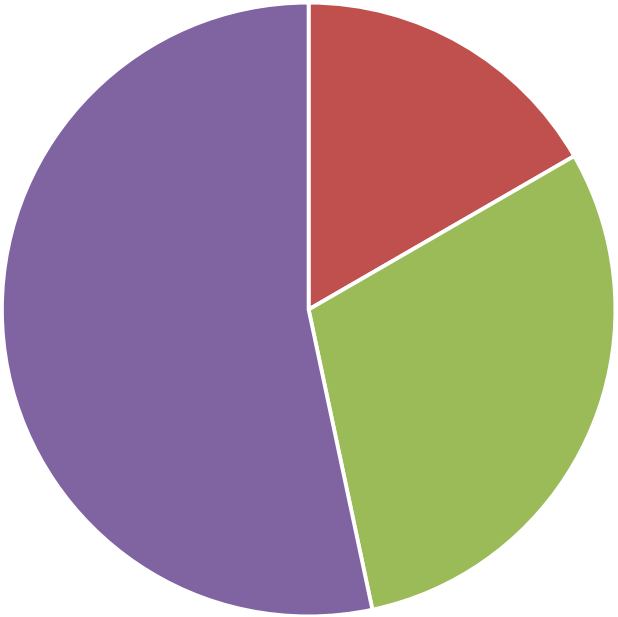


Examples of use

- Integrated program experiences
  - Interactive learning stories
  - Daily activity files
- Spontaneous experiences
  - Natural interest
  - Extension of enquiry & research
- Community connection
  - Local pilot training centre
  - Use of resources by Community
  - Inter-centre connections
  - Virtual experiences

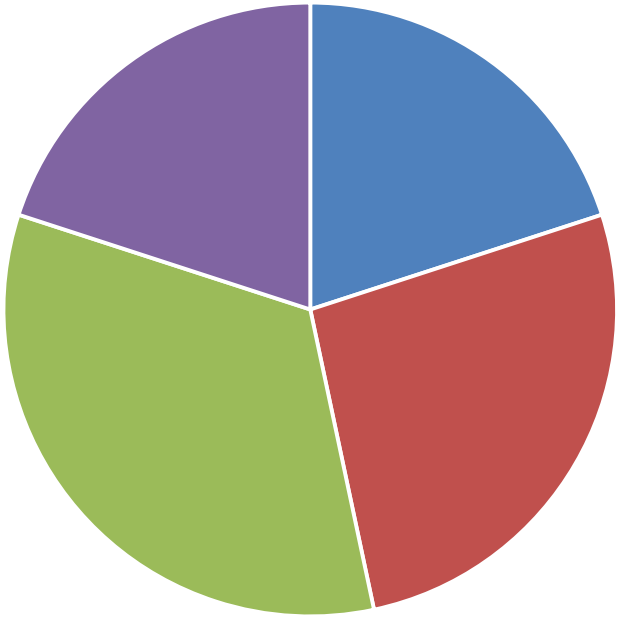


iPad use by Children



Extensive Moderate Limited None

iPad use by Educators



Extensive Moderate Limited None

Changes to Educator work patterns

- Different ideas
- Help kids learn without them realising they are learning
- Quicker access to information
- “I’ve learnt a lot more myself”

  More aware of what can be done with it
- Archiving and record keeping
- Flexibility
- Cultural exposure

Observed changes with children

- Turn taking- because they want to use it that tend to develop that turn taking and sharing skill themselves
- Attention span
- Engagement and interactivity
- Confidence in terms of learning and as users

  Interest in extending own learning
- Problem solving
- Transfer of language and actions to free play
- Initiative

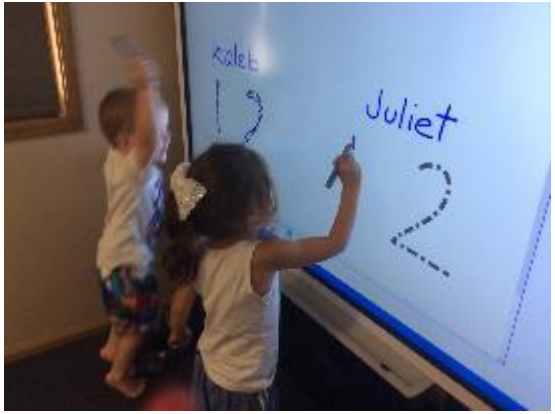
Views on the best ways to use technology

- A tool for learning- part of play not just a stand alone thing
- Supplement, enhance program ideas, support, scaffold

  Extend learning with an additional tool
- Guide and further children's knowledge regarding their interests, support their learning to become familiar with use of technology
- Build a relationship with home

Where to…. Moving beyond the technology

- Understanding pedagogical practices
  - Beyond tech support
- Professional Development
  - Frequency and mentoring
- Policy and Program development
  - Building educators as media mentors, exhibiting positive technology habits



What can technology do?

The User

- The more devices you connect, the less you connect
- Technology is simply another tool we can use in the early childhood environment to help us provide exciting and challenging learning opportunities

The Tool

- Technology cannot build relationships
- Technology contributes not causes
- All screens are not equal

Magic comes from the child and the Educator; not the device

Utilisation OR Integration

- Usage is random and often an afterthought
- It is rare or sporadic
- Used purely for the sake of using technology
- Often used to instruct content
- Mostly use by the educator
- Is used to delivery information
- Is peripheral to the learning activity

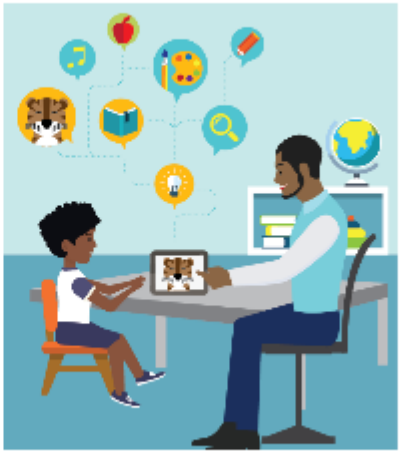
MOMENT
STEM

Technology role models and positive habits

TECHNOLOGY IS MORE EFFECTIVE WHEN USED TOGETHER

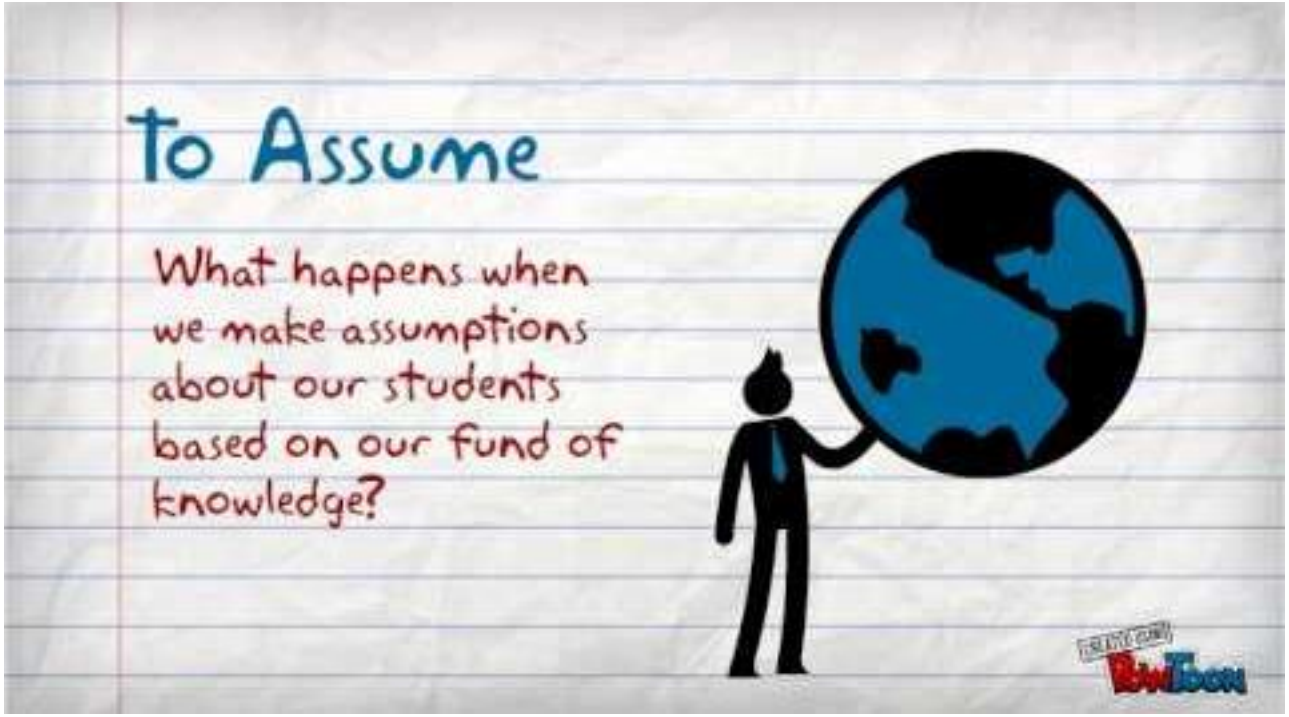
Engage

Communicate



Learn

Create


to Assume
What happens when we make assumptions about our students based on our fund of knowledge?

01
A child is naturally curious.
02
The child's curiosity drives them to explore through technology
03
The child's curiosity drives them to explore through technology
04
The child finds learning and exploring fun!
05
A child likes to repeat acitivites that are fun.
06
Repeating fun play activities helps a child to achieve mastery of their skills.
07
A child who is mastering new skills feels confident!
08
A confident child feels capable of attempting their next challenge.
Gooey Brains
www.gooeybrains.com
Adapted from "Curiosity, Pleasure and Play: A Neurodevelopmental Perspective" written by Perry, Hogan and Marlin (2000)

Thank you!

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