



# StepWrite – Harnessing the Writing Potential of Children on the Autism Spectrum

Peta Wyeth, Anne Ozdowska, Jill Ashburner  
and Suzanne Carrington



## ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

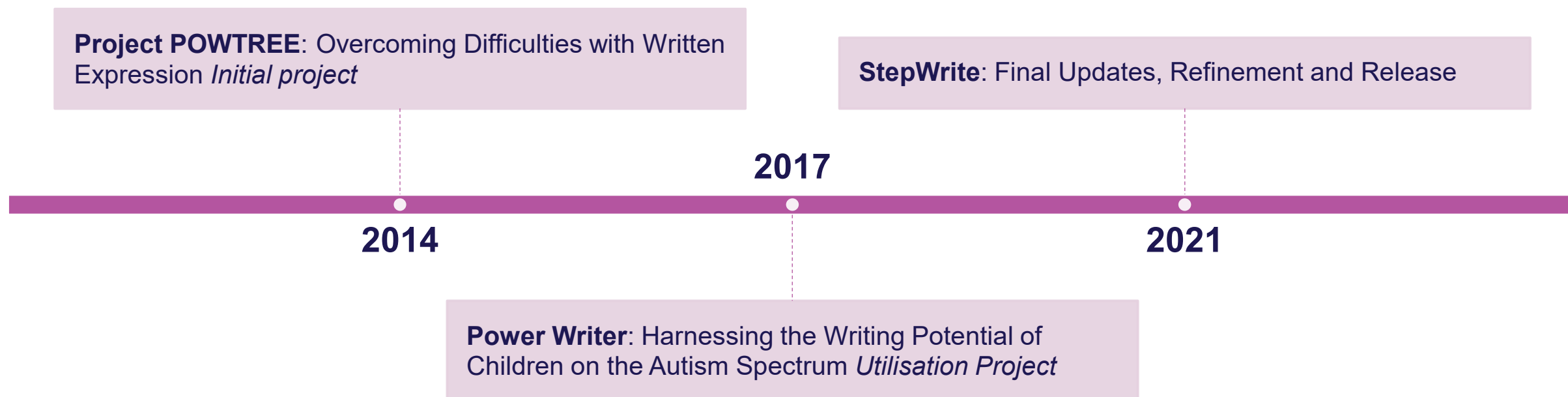
QUT acknowledges the Turrbal and Yugara, as the First Nations owners of the lands where QUT now stands. We pay respect to their Elders, lores, customs and creation spirits. We recognise that these lands have always been places of teaching, research and learning.

QUT acknowledges the important role Aboriginal and Torres Strait Islander people play within the QUT community.



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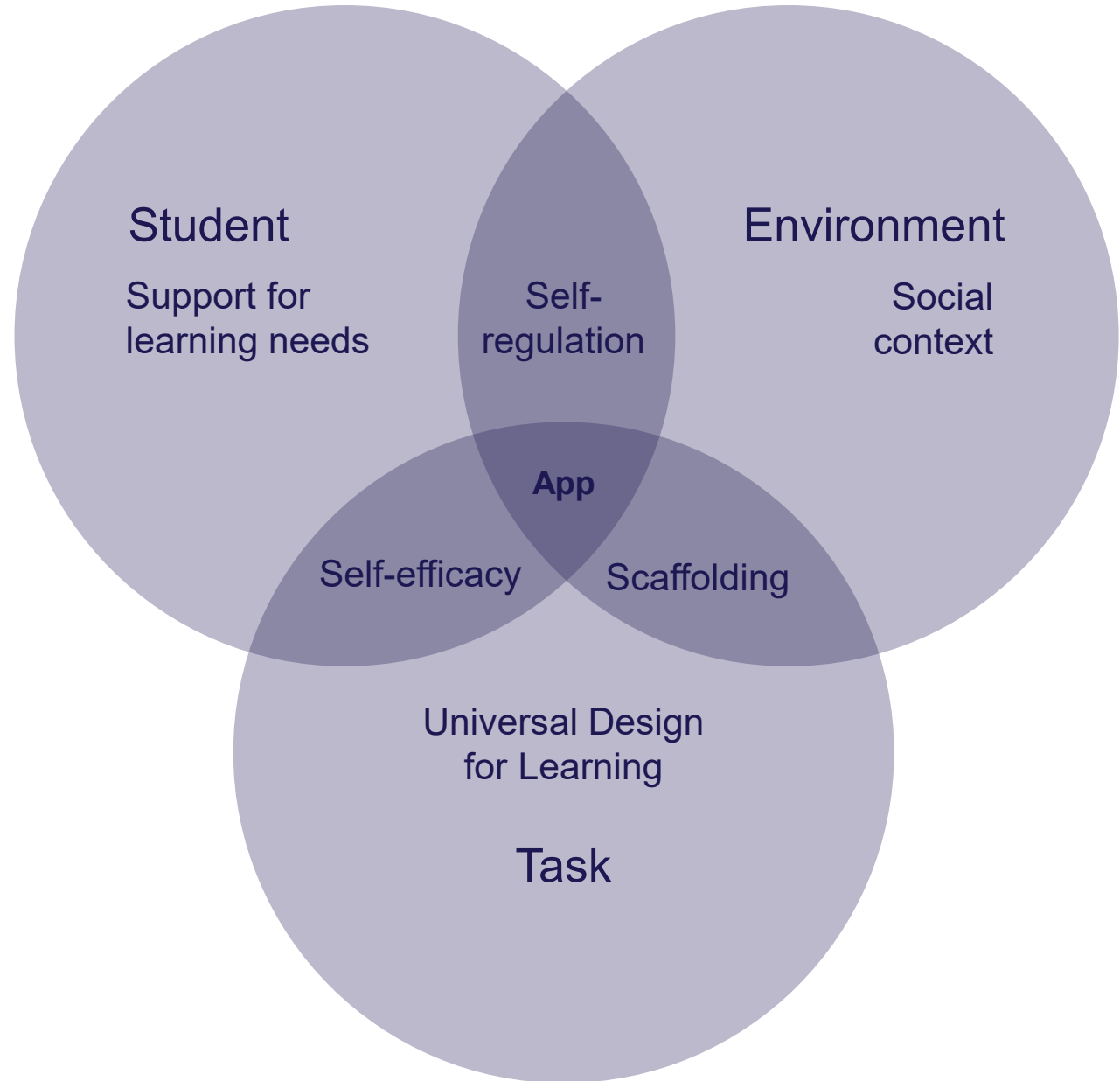
# History of StepWrite



# Project Motivation

- Addresses challenges
  - Fine motor and perceptual skills required for handwriting
  - Conceptual and language skills required for written composition
- Examining the effectiveness of technology for supporting written expression

# Technology Design Framework



# Self-regulation Strategy Development

## POW

- **P**ick my idea
- **O**rganise notes
- **W**rite and say more

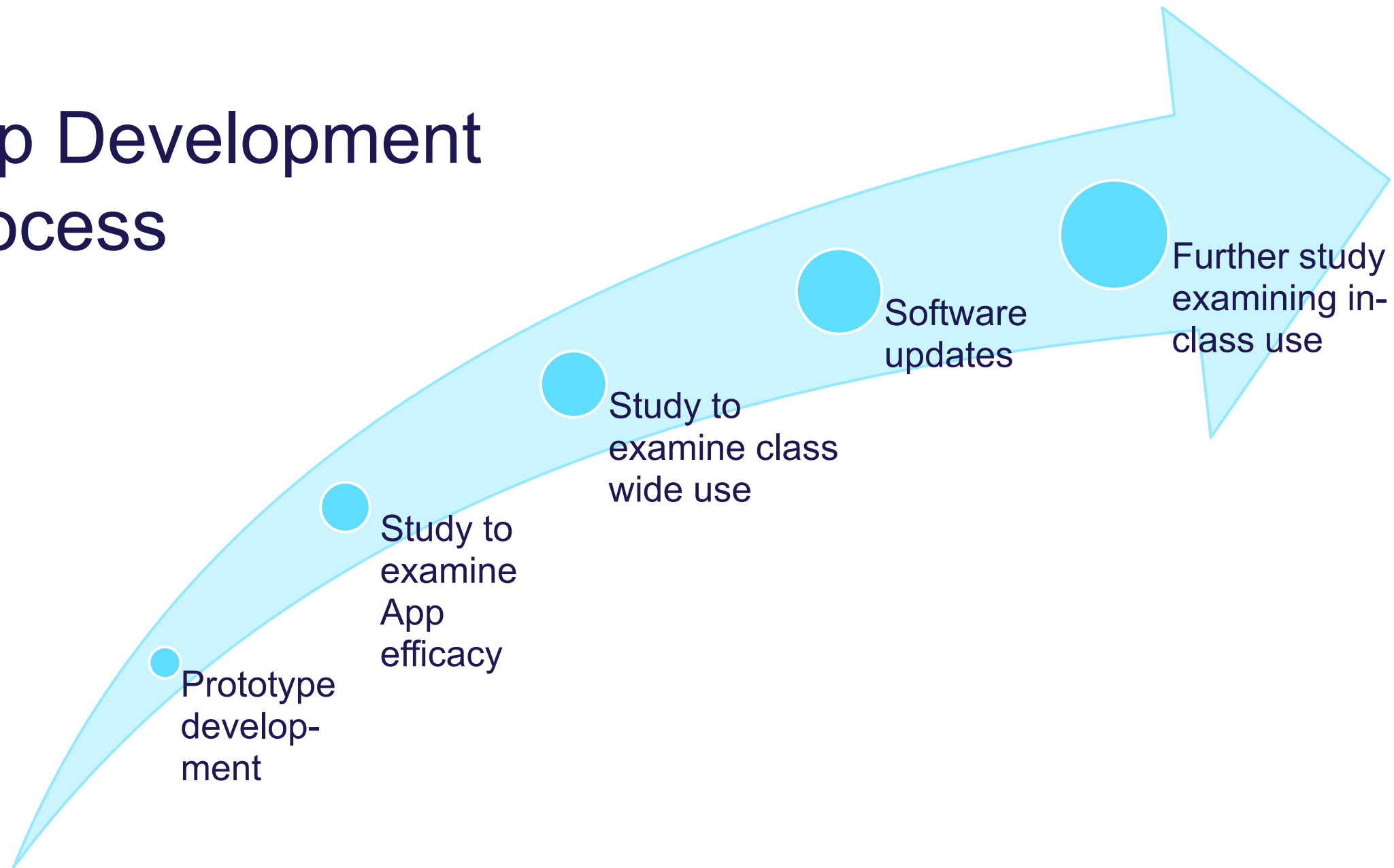
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## TREE

- **T**opic sentence
- **R**easons (three or more)
- **E**xplain reasons
- **E**nding and examine



# App Development Process



Prototype development

Study to examine App efficacy

Study to examine class wide use

Software updates

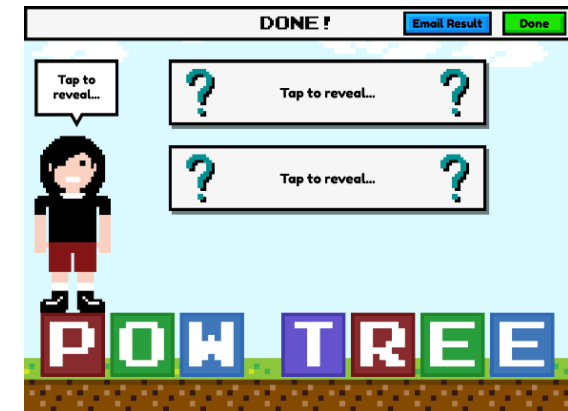
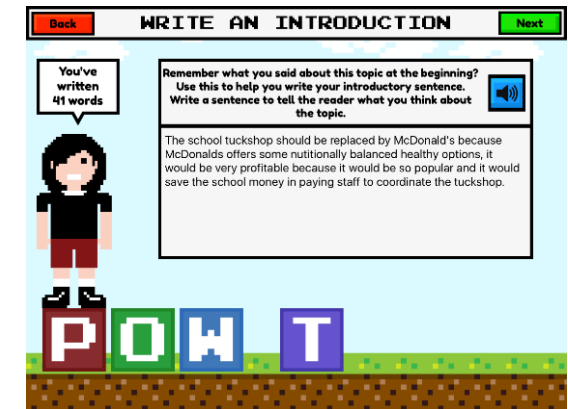
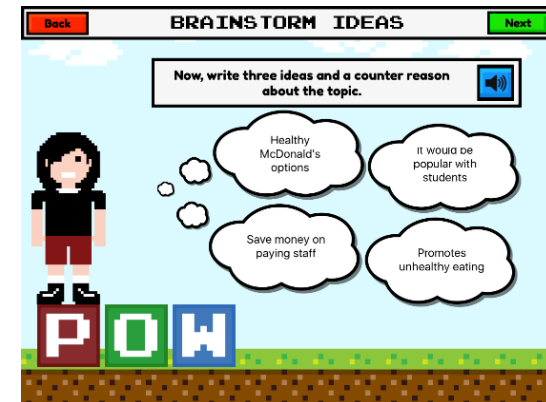
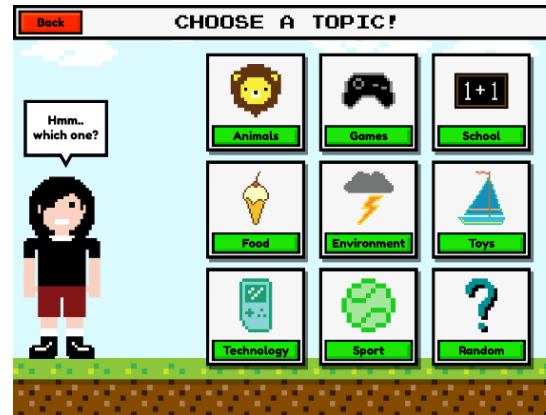
Further study examining in-class use



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# Prototype Development

- Low-fidelity prototyping
- Co-design focus groups
- App Development
- Prototype Refinement





# Study in Mainstream Schools

- Teachers and students reported that they felt that the App improved overall quality of writing outcomes and supported students to write more
- Students reported:
  - Feeling more positive about writing tasks
  - Improvement in planning, setting goals, self-monitoring and evaluating
- Teachers noted:
  - Student writing improved in class after they had used the App for four weeks
  - More willingness to write in class

# App Improvements – Introducing StepWrite

- More game-like features
- Better capture of writing outcomes
- Flexibility and personal preferences
  - Different modes
  - Improvements to scaffolding



# App Trial at Autism Queensland Schools

- Undertaken over one school term
  - Four classrooms of approximately six students
  - Classroom Observations
  - Teacher interviews
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- Data analysis underway
  - Preliminary analysis indicates positive outcomes from the trial

# Thank you

Questions?

**Peta Wyeth**

[peta.wyeth@qut.edu.au](mailto:peta.wyeth@qut.edu.au)

Ozdowska, A., Wyeth, P., Carrington, S., & Ashburner, J. (2021). Using assistive technology with SRSD to support students on the autism spectrum with persuasive writing. *British Journal of Educational Technology*, 52(2), 934-959.



[www.autismcrc.com.au](http://www.autismcrc.com.au)



Autism CRC is the world's first national, cooperative research centre focused on autism. We are taking a whole-of-life approach to autism focusing on early years, school years and adulthood.