

**Developing Digital Literacies and Digital Technologies in the Early Childhood  
Montessori classroom**

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There is no agreed strategy for how Digital Literacies are developed and how Digital Technologies are introduced and used in the Montessori classroom. A change to the mandated curriculum demands mean that how and when this should be done in a manner that is authentic and responsive to Montessori pedagogy needs to be studied and identified.

In 2018, a whole school Action Research Project was conducted in a Montessori school based in Western Australia. The School Curriculum and Standards Authority (SCSA), as an alternative to the Western Australian Curriculum, approved the Montessori National Curriculum taught at the school. The project aim was to demonstrate possible strategies for Digital Technologies implementation in a way that aligns with the Montessori philosophy and curriculum. Teachers were supported through professional development. A critical friend conducted onsite visits and acted as observer and offered ideas in the process of documenting opportunities for meaningful development of Digital Literacies and Transversal Competencies. Educators kept a log (written and/or photographic diary) of the development of Digital Literacies and the use of Digital Technologies in the classroom, and the particular times the children used technology in an authentic manner to support learning. The log allowed identification and documentation of how children use technology in a habitual manner in the classroom. The child-centred, inquiry-based approach observed children's repertoires as meaning-makers.

An outcome of the project is increased teacher knowledge of Digital Literacy and Transversal Competencies and the opportunities for the use of Digital Technologies. Some worked examples of classroom practice showed ways that teachers provided learning experiences using technology that were balanced and purposeful. This allowed the transformation of traditional authentic learning experiences, which were then mapped to curriculum outcomes.

This presentation will focus on the findings relating to the Early Childhood Program, including how formal and informal learning spaces foster learner autonomy, identity

investment and engagement through the application of Digital Literacies and Transversal Competencies. The teacher identified pedagogical frameworks to support children's development of Digital Literacies and Transversal Competencies will be shared.

(334 words)

### **Presenter Biographies**

*Dr Sharon Davies, Ph.D (Curtin), BEd (Hons) (Curtin)*

Sharon's research interests are in the fields of Early Childhood Education and STEM — science, technology, engineering and mathematics. She has a particular interest in the professional development of educators in education settings. Specifically, how action research and professional development can produce meaningful change in practitioners' skills, behaviours, and dispositions and promote a culture for ongoing professional growth. Current research focuses on how these factors determine rich educational experiences for all children in the area of STEM education. Sharon is a lecturer and the Master of Teaching (ECE, Primary and Secondary) Course Coordinator at Curtin University in Western Australia.

*Dr Samantha Owen, Ph.D (Reading), MA (U.Pitt.), BA (Hons. I) (UWA)*

Samantha is an early career researcher and a Humanities and Social Sciences (HASS) lecturer at Curtin University in Western Australia. She has a special interest in “alternative” education models (Montessori, Reggio Emilia and Don Milani) and a specialisation in educational policies and impact assessment. She has extensive experience working in diverse schools and implementing projects in different educational settings.

*Mrs Sarah Thomas, BEd (Murdoch), Grad Cert (Inclusive Education) (Murdoch)*

Sarah Thomas is an experienced educational leader, qualified to work in both Primary and Early Childhood Mainstream and Educational Support settings. She has a Graduate Certificate in Inclusive Education and has worked across a range of roles in Curtin University

and Open Universities Australia. Previously holding a Deputy Principal position, she is currently a Program Coordinator – Classroom Learning and Innovation, while continuing in Research Associate roles for Curtin University and private consultancy across a variety of educational areas, including digital literacy and the use of digital technology with children in diverse settings including children with Special Needs. With extensive experience in leading whole school changes, Sarah is passionate about ensuring that the individual needs of children are recognised and catered for in all educational settings.