



Capability Statement

Early childhood education and technology

The University of Wollongong (UOW) has strong foundations in early childhood education and care, and we are committed to becoming a world leader in the early years through our quality Early Years bachelor degree, investment in the Early Start initiative and the Australian Research Council (ARC) Centre of Excellence for the Digital Child.

UOW incorporates community outreach, education and research initiatives to help children living in vulnerable circumstances to realise their potential.

Founded on the belief that “every child deserves the best possible start to life”, Early Start brings together early childhood teaching and community engagement initiatives with world-leading researchers working on all aspects of child development, from cognitive development to digital learning and literacy to healthy lifestyles and social inclusion.

Its aim is to have a positive impact on the life trajectories of children, especially those growing up in regional and remote Australia, by working with families, practitioners, researchers, service providers, policymakers, governments and communities. Early Start is connected to communities physically and virtually to deliver research, education, program development, stakeholder engagement and service delivery across the entire continuum of child development.

Within the purpose-built facility at UOW’s Wollongong Campus, transdisciplinary evidence-based research is carried out across the spectrum of children’s educational, developmental, physical, cognitive, social and emotional development. More than 30 researchers (and many HDR students) work in multidisciplinary groups with communities, leading industry partners, and organisations to collaborate on research that is focused on the child (in the first decade of their life) and those with whom they interact with in their home, community and educational settings.

Early Start prepares teachers who work within the whole continuum of education from birth to Year 12. As a key research translation space, Early Start offers unique work-integrated learning opportunities for students in initial teacher education.

UOW researchers are contributing to world-first research to understand the impact of digital technology on Australian children. Early Start houses the UOW node of the ARC Centre of Excellence the Digital Child (the only NSW node) and the UOW Children’s Technology Play Space, a living laboratory for the centre of excellence.

The Early Start facility was funded with \$31 million from the Federal Government’s Education Investment Fund, \$7 million in philanthropic funding through the Abbott Foundation, and the balance from UOW. It works with the Abbott Foundation, the World Health Organization, NSW Health, Department of Communities and Justice, Goodstart Early Learning, the Australian Government Departments of Health and Education, Playgroup NSW, Early Childhood Australia, ARNEC, and other organisations collaborating on research into overcoming disadvantage and effecting real social change.

The three core elements of research, engagement centres and the Discovery Space are closely woven at Early Start to capitalise on its concentration of expertise and help drive innovation.

Early Start is a place where research, education and community come together to improve life trajectories for children, especially for those growing up in regional and remote Australia.



Early Start has strong partnerships with NGOs and other service providers to further support families with experiences they would otherwise struggle to access. These include programs like Let's Play, Let's Eat, a collaboration with Family Services Illawarra which seeks to catalyse change in food choices made by families living in vulnerable circumstances.

CHILDHOOD IN THE DIGITAL AGE

As one of six university partner nodes of the Australian Research Council (ARC) Centre of Excellence for the Digital Child, UOW researchers are contributing to world-first research to understand the impact of digital technology on Australian children. UOW contributes to all three programs of research – educated, healthy and connected – and hosts the UOW Children's Technology Play Space.

Research at the centre intersects across fields of health, education and technology to offer a holistic view of young children and their digital experiences. The heart of the research program is the Longitudinal Family Cohort Study – a seven-year study of 3,000 Australian families, focusing on children from birth to eight years of age. The study is designed to identify potential problems and unmet possibilities associated with digital technologies in early childhood. The results of this research benefits parents and informs improvements to children's health and education policy.

A focus on the digitally-educated child enables UOW researchers to make strong connections with Early Start – its Discovery Space, engagement centres and innovative pedagogical advances. The ARC centre brings together expertise from 33 academic and industry partner organisations from Australia, Europe, Asia and America.

RESEARCH IMPACT AND TRANSLATION

Early Start researchers have made significant contributions to policy and practice at a local, national and international level. They were acknowledged in the 2022 Australian Council for Educational Leaders NSW Leadership Awards as leaders of research in early childhood, with their work having a radical and profound influence on cognitive, educational, physical and psychosocial outcomes for young children,

while promoting diversity and equality. In 2021, 79 students were enrolled in doctoral programs, while Early Start won \$2.8 million in research funding and researchers produced 178 peer-reviewed publications (with publications cited 8,978 times).

Current research focuses on four interrelated research themes: food and movement; family, learning and interaction; play and curriculum; and self-regulation and cognitive development. Researchers are from diverse disciplines including public health, psychology, education, paediatrics, sociology, nutrition and dietetics, and information technology. Projects are developed in collaboration with a range of partners to extend the benefits and integration of research findings. These include the Illawarra Local Health District, the World Health Organization, and Playgroup NSW.

Unlike traditional research that may take many years to have an impact, research from Early Start - in close partnership with its Early Start engagement centres - ensures that outcomes are adopted into practice and policy far more rapidly. Since being established in 2014, Early Start researchers have been awarded over \$12.5 million in research income, and have produced more than 500 publications. They have supervised a total of 60 HDR completions in this time.

Researchers have been analysing healthy eating and movement habits, both at home and in family day care and out-of-school environments. Through collaborative research with partners including the Illawarra-Shoalhaven Local Health

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District and South-Western Sydney Local Health District, Early Start researchers have formulated guidance for parents and educators to implement them most effectively. This work is being carried out with the aid of funding from the NSW Ministry of Health Prevention Research Support Program.

Another significant area of Early Start research has concentrated on school-aged children in the Outside of School Hours Care (OSHC). OSHC centres are vital for promoting healthy behaviours as 32 per cent of NSW children attend these services after school, and these numbers are increasing.

Early Start responded to the 2019-2020 bushfire disaster by developing an online guide in partnership with the NSW Department of Education to assist educators to support children and families, as well as themselves.

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With support from the Ian Potter Foundation, Early Start championed the Supportive Effective Service Integration (SESI) project (2018-2022), supporting educators across five low socio-economic NSW pilot sites. Similarly, Early Start led the Fostering Effective Early Learning (FEEL) study (2015-2020) with the Department of Education (DoE), providing professional development to 90 early childhood education (ECE) services throughout NSW. This led to the design and delivery of a comprehensive professional development program to all 100 DoE preschools across NSW.

Early Start has a strong track-record in working with First Nations organisations. This includes established relationships with NSW Thrive - SNAICC, AbSec, local land councils and Woolyungah Indigenous Centre. Early Start works with the CAGES Foundation to promote reconciliation and self-determination through inclusive employment and engagement practices in NSW Aboriginal ECEC services.

DISCOVERY SPACE

Early Start's children's museum – one of Australia's dedicated children's museums and the first of its kind in the world based on a university campus – stimulates curiosity, nurtures creativity, builds confidence and provides opportunities for social connection, learning and discovery.

Open to the public six days a week, the Discovery Space is a place where children and adults can explore together – discovering, learning and unleashing potential. Since opening in 2015, it has had more than 800,000 visitors and provided curriculum-linked excursions to 30,000 children.

CHILDREN'S TECHNOLOGY PLAY SPACE

Next door to the Discovery Space is a living laboratory with digital experiences available for children from birth to eight years of age and their parents. It is also a place for educators and industry partners to work with the research team.

The Children's Technology Play Space is available to the public as another experience to the Discovery Space through regular digital playgroups, where there are hands-on workshops for children and carers to learn how to use technology wisely.

ENGAGEMENT CENTRES

Early Start is committed to working with families in regional and remote communities, and communities of high vulnerability across NSW and the ACT. As such, Early Start partners with 51 early childhood education and care centres to embed meaningful community interventions and provide targeted professional learning.

Many of these centres operate under a SEIFA index of 4, are Aboriginal Child and Family centres, or are run by Aboriginal incorporated corporations. The engagement centres are accessed by more than 3,000 children and their families every year.

PROFESSIONAL DEVELOPMENT AND LEADERSHIP

Early Start has an ongoing commitment to evidence-based professional development through innovative in-service delivery models (face-to-face, online and mentoring).

The use of the latest technology and international research links are further enhanced by students being able to work alongside academics, educators and children involved in Early Start. Early Start's transdisciplinary approach includes academics from a broad spectrum of subjects, including education, social work, psychology, medicine, public health, ICT and engineering.

As a key research translation space, Early Start offers unique work-integrated learning opportunities for students in initial teacher education and supports the largest concentration of First Nations early childhood teachers and staff in NSW.

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Early Start programs funded by the CAGES Foundation:

UOW has an ongoing commitment to evidence-based professional development through innovative in-service delivery models (face-to-face, online and mentoring). Early Start's Professional Learning program continues to grow, with more than 3,000 participants from across Australia (and some international) taking part in programs. Programs are also supporting workforce development issues within First Nations services. Professional learning focus areas include curriculum and pedagogy, quality, and autism. Early Start also offers mentoring and coaching to support First Nations educators to undertake educational leadership and educator qualifications.

Workforce development through the Early Start Denver Model (ESDM):

This includes the Advanced Training and Certification Program for professionals who want to provide the ESDM intervention/therapy for children; and the Educator and Therapy Assistance Training Program (for all those who work with children in health or education settings to support those with autism spectrum disorder). Early Start is working with individuals in rural and remote Australia to increase the number of ESDM-certified therapists in these areas. The ESDM team has also recently established a partnership with Autism Queensland to deliver a program.

In response to community demand, the Early Start Autism Clinic has launched an expanded offering of support services and education to help parents, carers, early childhood educators, therapists and others caring for and working with children with autism spectrum disorder. The clinic provides evidence-based early intervention and mental health support services, as well as workshops and professional training in the ESDM model.

EVALUATING PROGRAMS IN RESPONSE TO COVID-19

The project *Lessons from the COVID-19 pandemic in responding to the early child development and nurturing care crisis (Asia-Pacific Regional Network for Early Childhood 2021-2022)* involved review and analysis of early childhood development (ECD) programs that were developed or adapted to respond to the impacts of the COVID-19 pandemic across Asia-Pacific Regional Network for Early Childhood (ARNEC) partner countries in the Asia-Pacific region.

The overarching aim of this report was to provide information relevant to programs and practices within the Asia-Pacific region, making this information easily accessible to practitioners and policymakers. This sharing of practices and resources was designed to support ECD advocacy and nurturing care in the region. Secondary aims included detailing how such programs and initiatives could inform future responses in the context of increasing social and environmental volatility within the region.

The success of this project led to the Early Start team being invited to be involved in follow-up professional learning, policy discussions and the development of policy briefs. Early Start has also been engaged to lead additional projects for ARNEC on climate change.

UOW WELCOMES THE OPPORTUNITY TO WORK WITH GOVERNMENT AND INDUSTRY PARTNERS TO DELIVER EXCEPTIONAL OUTCOMES

CONTACT

Canio Fierravanti

Director, Government and
Community Relations
University of Wollongong

Ph: (+61) 2 4221 5931
E: caniof@uow.edu.au

uow.edu.au



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OF WOLLONGONG
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