

School of Education

Updated



RESEARCH HIGHLIGHTS

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FEATURED ARTICLES

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From the Executive Dean

It is my pleasure to share the final edition of UpdatED for 2023 with you.



Professor Caroline Mansfield
Executive Dean, School of Education.

In our end of year edition of UpdatED we are excited to share a collection of highlights showcasing our endeavours in research, teaching and community engagement.

The articles show the depth and breadth of our research topics and raise awareness of issues such as the absence of female scientists in school curriculum (Associate Professor Helen Adam), the importance of handwriting skills (Dr Anabela Malpique), the workforce shortage in early childhood education (Dr Pauline Roberts), enhancing Pre-Service Teachers' professional knowledge in mathematics (Dr Vesife Hatisaru), and digital cyber security in primary schools (Associate Professor Nicola Johnson).

Since the last edition we have welcomed a new Vice-Chancellor's Professorial Research Fellow, Professor Narelle Lemon ([see page 13](#)). Her expertise in wellbeing and self-care in education adds a new dimension to our School's research profile, and you can find several articles on this theme throughout the publication.

We hope the insights shared in UpdatED continue to positively inform and inspire your work. Best wishes for peace and joy over the upcoming break.

October - November **WELCOME TO KAMBARANG**

The Noongar Season 'Kambarang' is represented by the colour yellow as it symbolises the return of the hot weather. During Kambarang season, we see an abundance of colours and flowers exploding all around us. The yellows of many of the acacias continue to abound, along with some of the banksias and many other smaller delicate flowering plants including the kangaroo paw and orchids. During this time the balgas will continue to flower, especially if they've been burnt in the past year or closely shaved. One of the most striking displays of flowers to be seen during this season will be the moojar, or Australian Christmas Tree (*Nuytsia floribunda*). The bright orange-yellow flowers serve to signal the heat is on its way. [Read more on the ECU webpage.](#)



Hats off to Teachers!

Education alumni were recognised and celebrated for World Teachers' Day 2023 at a special Masterclass on Thursday 26 October 2023.

Guests packed out a lecture theatre at the Mount Lawley campus to hear ECU Researchers, Dr Libby Jackson-Barrett and Associate Professor Helen Adam provide practical tips and tools to help infuse Aboriginal perspectives into the classroom.

This interactive masterclass organised by ECU's Alumni Relations team in partnership with the School of Education explored how teachers can create more culturally responsive learning environments to drive improved educational outcomes for Aboriginal and Torres Strait Islander students.

Guests enjoyed a bit of fun with this year's World Teacher's Day theme "Hats off to Teachers" connecting over a drink and some delicious bush bites before the presentation. Lemon myrtle chicken skewers, caramelised onion tarts and bush spiced kangaroo sausage rolls were just some of the items on the menu provided by local catering company Kuditj Kitchen. ECU Elder-in-Residence Dr Roma Winmar opened the session with a beautiful Welcome to Country. Executive Dean from the School of Education, Professor Caroline Mansfield, shared important updates from the School and touched on the global imperative to reverse the teacher shortages.

Educator attendees took part in an online Mentimeter survey to reflect on the barriers preventing teachers from incorporating Aboriginal perspectives into their teaching. Fear of getting it wrong, uncertainty, and misunderstanding were some of the most common responses. Dr Libby Jackson-Barrett and Associate Professor Helen Adam shared their insights and addressed some of these concerns throughout the masterclass and extended Q and A.

Education alumni and guests who attended on the night were emailed with a resource pack to use in their teaching practice.

To find out more about exciting events and activities for ECU alumni, follow us on [Facebook](#) or [LinkedIn](#). Or if there are any topics you would like us to explore at future Education alumni events, please contact us at alumni@ecu.edu.au. We'd love to hear from you!



Infusing Aboriginal Perspectives into the Classroom will soon be offered as a short course, please email us at education_shortcourses@ecu.edu.au for further information.

Follow the Dream: Supporting Aboriginal students

Mrs Carol Puddicombe, Lecturer, School of Education.



Follow the Dream represents a comprehensive initiative dedicated to supporting and advancing Aboriginal students in their pursuit of academic excellence. It cultivates scholastic development through tailored after-school tutoring, mentorship, and the implementation of personalised educational strategies. The program further augments the educational journey by offering enriching experiences, facilitating exploring post-secondary opportunities, and fostering a profound sense of inclusion and belonging.

On the 30th of August 2023, a group of Indigenous students and educators actively engaged in a Design & Technology workshop hosted at the Edith Cowan University's Mount Lawley campus. Ms Rebekah Dougan, the External Relationships Coordinator, and Mrs Carol Puddicombe, the Course Coordinator for Design and Technology, organised this workshop. The workshop itself was conducted by two Bachelor of Education students in their fourth year, specialising in Design & Technology – Mr Piers Forder and Mr David Morgan. These initiatives are pivotal in nurturing career awareness within the Indigenous student community, contributing significantly to their educational and vocational aspirations.



From pen licence to cyber security licence. A first line of defence for Aussie kids



Associate Professor Nicola Johnson, School of Education.

Researchers from ECU and the Security Research Institute (SRI) are developing a digital cyber security licence for Australian students and teachers. The licence would be like a swimming certificate, where each student moves up in levels based on their evidence of achievement.

Many adults would remember getting their pen licence in primary school, now researchers from Edith Cowan University (ECU) and the Security Research Institute (SRI) are developing a digital cyber security licence for Australian students and teachers. "This licence would be like a swimming certificate. Each student moves up in levels based on their evidence of achievement according to set criteria," ECU's School of Education Associate Professor Nicola Johnson said.

"The proposed digital cyber security licence for school students would help kids be their own first line of defence against cybercrime and comprise appropriate stages for primary school aged children continuing into secondary school." The research shows licences are a major step towards improving cyber education in schools, boosting the future digital workforce and protecting Aussie kids online.

"It's vital that children learn about the risks and benefits of being cyber aware from a young age," said Rachael Falk, CEO of the Cyber Security Cooperative Research Centre (CSCRC).

"We live in a world where smartphones, iPads and computers are part of young people's lives more than ever before. A program like this is a positive way to ensure they're prepared and educated about cyber safety."

"Teachers and schools would also be able to obtain a digital cyber security licence, to help implement cyber secure and cyber hygienic best practices from a basic to an advanced stage," Associate Professor Johnson said.

Cyber-crime awareness campaign

Following a series of public workshops held in Perth in late 2022, which involved cyber experts, educators and policy makers, the new report also calls for a national awareness campaign targeting Year 7 to 12 students.

"The concept is like the Slip Slop Slap campaign, but in this case about the danger of being online rather than in the sun," Associate Professor Johnson explained.



"We can get it right for WA students, teachers, and schools to better prepare and equip society to reduce cyber-crime and increase resilience to illicit cyber behaviours."

"Just like ocean swimming safety, we must teach our children about the lurking sharks."

"Teaching our young primary students the basics of cyber hygiene and cyber awareness is crucial," CEO of the Cyber Security Cooperative Research Centre (CSCRC).

Step-up security

Western Australian educators currently spend around six hours teaching English in pre-primary to year six.

When it comes to technology education, that drops significantly from pre-primary to year 8 to just two hours per week.

Associate Professor Nicola Johnson also said everyone should use password managers, multifactor authentication and update their devices regularly.

"It's not just about learning and teaching, it's also about having a national conversation about behavioural change to help address the high level of risk that individuals face online every day. Schools are the perfect place to start that conversation to protect our most vulnerable."

"Teachers need professional learning to develop their knowledge and cyber hygiene practices so they can confidently teach relevant aspects of cyber security as they go about their everyday teaching."

Action now for the future

There is an undoubted economic need to build a skilled cyber workforce, however as Associate Professor Johnson explains Australia does not have the required resources in schools

"The shorter-term threat of cyberattacks grows exponentially upon us and whilst cyber security is being addressed at the national level, for instance via the recent appointment of Australia's first Cabinet Minister for Cyber Security and an Expert Advisory Board, it is still in its infancy within school settings," Associate Professor Johnson said.

"We will consult with school principals across WA to identify the professional learning needs of their staff so we can best support teachers. Coupled with the implementation of the digital cyber security licence, and the public awareness campaign, we are excited about the potential impact we will have within communities throughout the state."

This article is republished from the **ECU Newsroom**.
Read the original article [here](#).

A BRiTE approach to supporting teacher resilience and wellbeing

Professor Caroline Mansfield, Executive Dean, School of Education.



It is no secret that teaching can be a highly challenging profession, yet many teachers effectively manage these challenges and have fulfilling and successful careers.

Over the past ten years, there has been increasing attention given to teacher resilience and wellbeing, especially during and post the COVID 19 pandemic, and in light of ongoing concerns about teacher attrition, burnout, stress and workplace wellbeing.

A group of researchers from four Australian universities has developed an online resource to support Pre-Service and Practicing Teachers build capacity for professional resilience. This free resource, the BRiTE program, is proudly sponsored by ECU and available at www.brite.edu.au.

The aim of the BRiTE (Building Resilience in Teacher Education) program is to help Pre-Service and Practicing Teachers build their awareness of the skills and practices that will help facilitate resilience in their teaching career.

In the context of this work, resilience is understood to be a process occurring over time whereby teachers draw on personal and contextual resources and use particular strategies to navigate challenges, enabling professional engagement, commitment, satisfaction and wellbeing.

There are five modules: Building resilience, Relationships, Wellbeing, Taking initiative, and Emotions. The modules include topics such as understanding resilience, building relationships in the school community, personal wellbeing and work-life balance, problem solving, communication, optimism, emotional awareness and regulation.

Each module is:

- Personalised - users can contribute responses and build their own personalised toolkit for professional resilience
- Interactive – users actively engage with content and activities
- Authentically connected to the profession – through teacher voices, videos and AITSL standards
- Informed by research – includes ‘what do the experts say’ and links to research

A sixth module ‘BRiTE Mind’ has also been developed, providing a brief introduction to mindfulness, focusing on how mindfulness can support resilience and how it can be applied to school settings.

Research has shown that engagement with the BRiTE modules increases Pre-Service Teachers’ confidence for managing challenges when on professional experience and increases their awareness of managing their emotional wellbeing and taking care of themselves.



“I probably wasn’t aware of my emotional well-being as much” and “just having that awareness means you are not drowned by it... so having to frame my thoughts in a positive way helped me emotionally”.

The modules also provide prompts for reflection and to encourage users to be proactive in managing challenges and planning for self care.

“They actually allowed me to think about stuff like if I was taking care of myself” and “ways to think about how I would manage stress and problem solving skills in the classroom”.

“I learnt about how to apply skills if I become stressed or flustered. Also in how to not take things too personally from other students if they become angry towards me, it’s about other things not always the teacher.”

Since their launch in 2016, the BRiTE modules have been widely accessed, with over 55,000 users worldwide. Eighty percent of users are from Australia, and the modules are embedded in many teacher education programs. The modules have also been successfully used internationally, and have been translated into Dutch and used as an intervention with teachers in the Netherlands, in a collaboration with colleagues at the University of Groningen.

The BRiTE modules are part of ongoing national collaborative research to better understand how teachers’ wellbeing can be supported through development of personal and professional resources to enable success and ongoing commitment to the profession.

For further information, contact Professor Caroline Mansfield via email c.mansfield@ecu.edu.au.



Female scientists overlooked in school curriculum



Associate Professor Helen Adam, School of Education.

The accomplishments of female and non-European scientists have been overlooked in Australian school curriculum, prompting concerns about a lack of role models for students.

Researchers examined textbooks used in every state and territory and found there was just one mention of the work of a female scientist, British chemist Rosalind Franklin.

Coursework related to Dr Franklin's discoveries was only set in Queensland, South Australia and the Northern Territory, with senior students in other jurisdictions only referred to the work of male scientists.

The research also found there was an almost exclusive focus on European discoveries in science, engineering, technology and maths, collectively known as STEM. "The situation is alarming and inaccurate", lead researcher and Curtin University academic Kat Ross said.

"For children to develop a positive sense of identity and belonging, it's important for them to have access to accurate and authentic role models related to their gender and cultural backgrounds throughout their lives," Dr Ross said.

"We know participation rates of girls in STEM are low compared to boys, and this gender gap in the science heroes they learn about at school is likely a contributing factor."

This article is republished from **The New Daily**.
Read the original article [here](#).

The study was conducted by scientists from Curtin University, Monash University, the Australian National University, the University of Southern Queensland, Edith Cowan University and the Australian Wildlife Conservatory.

They examined coursework related to biology, chemistry, physics and environmental science. Co-author Andrew Battisti said seeing role models that align with a student's identity provides reinforcement that they belong in the field.

"My own choice to become an astronomer was strongly influenced by a high school science teacher fascinated by astronomy, whom I saw as a role model," Dr Battisti said.

The research was published in the Australian Journal of Education and has already had an impact. The Queensland Curriculum Assessment Authority has redrafted its senior syllabuses to include the contributions of more female scientists, and it's hoped more will follow suit.



Credit: Balance Form Creative/shutterstock.com

Help is here! A new wellbeing framework for schools and teachers to support young people after the pandemic

Dr Lyn Vernon, Senior Research Fellow, School of Education.



Introduction

It is now widely recognised that a significant and long-term health and educational crisis impacting youth worldwide persists in the wake of the COVID-19 pandemic. Our findings highlight the immediate necessity to support school leaders and teachers due to young people's exponentially growing health and wellbeing needs. To address this need, we provide an innovative, universally-relevant, evidence-based wellbeing framework emphasising four key domains: individual attributes, environmental factors, social interconnections, and choice—as focal points for schools, teachers, parents and policy-makers.

The Study

The aim of this study was to develop a practical tool to support schools and teachers to cater for the increased physical, mental health and wellbeing needs of youth. We used Sen's Capabilities Approach as a lens to examine the existing and emerging research focused on the COVID-19 pandemic, issues affecting young people and school health promotion and investigated changes to individuals and school communities and learning environments, including changes to online learning. We identified and mapped young people's physical and mental health resource changes due to the pandemic. Proceeding to examine internal (individual/personal factors) and external conversion factors (environmental and social), we also investigated potential capabilities (sets of functions and choice/agency) to identify strategies to support young people to function and flourish through and after the COVID-19 pandemic. This process led to the identification of four central enablers, which were utilised in the design of the International Framework for School Health Promotion (IFSHP).

Findings and Recommendations

Our findings indicate schools, principals, teachers and parents require urgent support due to exponentially growing health and educational crisis effecting young people. We offer a free and novel framework for school health promotion, to assist schools to evaluate their existing school health programs, policies, and practices.

Based on our findings it is recommended:

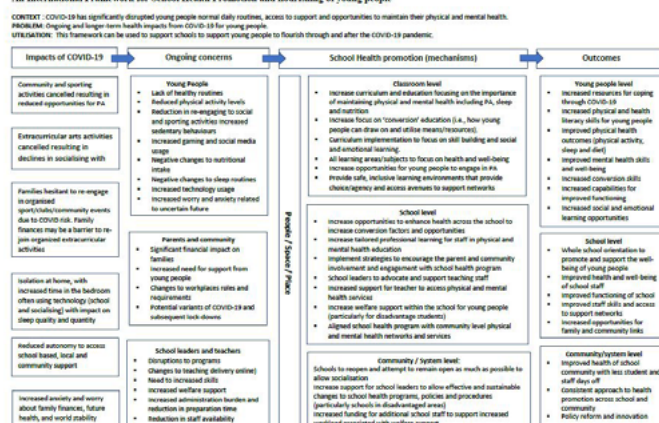
- Whole school health promotion programs address multiple health risk factors to ensure young people are provided with safe and inclusive learning environments that support physical, social and mental health and wellbeing across the classroom, school and community level.
- Focus should be placed on 'conversion education' (i.e. how young people can draw on, and utilise their existing resources and effectively implement strategies to improve their own physical and mental health and wellbeing).
- Increase education focusing on the importance of maintaining physical and mental health with a key focus on physical activity, sleep, nutrition, mental health with an emphasise social and emotional learning to enhance young people's health capabilities.
- Young people from disadvantaged backgrounds are particularly vulnerable post the pandemic and require targeted support.

Conclusion

Schools continue to serve as pivotal locations for health promotion, with school leaders and teachers retaining their influential roles as community members able to positively shape young people's health and well-being. School systems are encouraged to utilise the IFSHP to evaluate and innovate existing school health promotion programs to enhance the physical, mental, and social well-being capabilities of our youth—a vital cornerstone for future societal resilience. Timely deployment of this framework stands to profoundly shape the future well-being of our youth.

An International Framework for School Health Promotion and flourishing of young people

Scott et. al. (2023) <https://doi.org/10.1111/josh.13369>



Credit: Drazen Zigic/shutterstock.com

This is an updated version of an article originally published in the **ACHPER Advocate** by **ACHPER Australia**.

<https://doi.org/https://doi.org/10.1111/josh.13369>

Pre-schools battle ratios to do their job

Dr Pauline Roberts, Senior Lecturer, School of Education.



The early childhood education sector has been struggling as staff shortages take hold.



It's really important that we keep bringing up these issues around conditions and the importance of making sure that children who need access to quality early learning are getting it."

Pauline Roberts says now is the time for change in the early childhood education sector.

A shortage of qualified staff in early childhood education centres has recently been highlighted in the media but difficulties in the sector have been around for some time. In June, the Australian Childcare Alliance (ACA) released survey data that show early learning and day care centres across the country were capping their enrolments because of workforce shortages.

The ACA said two thirds of the 627 centres surveyed during one week in February confirmed enrolments had been capped. According to the ACA, most early learning centres were forced to cap numbers after being unable to meet the legal ratio requirements of educators to children.

Early Childhood Australia deputy chair Pauline Roberts said about 40 per cent of services in Western Australia were working on waivers. "They're working on waivers because they can't recruit and retain staff at the level of qualifications that are required under the rules and regulations," she told Business News. The National Quality Standard also sets a benchmark for educator-children ratio in early childhood centres in each state and territory.

Dr Roberts, who is a senior lecturer in early childhood education at Edith Cowan University, said a vast majority of qualified educators would prefer to work in schools.

"Because it's the way it's funded by the state government, they get more pay in a school setting, as well as the holidays and the different hours, with the children being on site," she said. "That means that there is a real shortage of teachers in early learning services; they're trying to compete against schools."

Early childhood education and care is subsidised by the federal government while the WA government funds kindergarten and schools in the state. The scheme creates differences for a four-year-old attending an early learning centre or a school-based kindergarten. "The funding for that four-year-old kindy has gone to schools up until recently," Dr Roberts said.

"They're just working on now a system where that 15 hours of funding under the universal access agreements. There's potential for that to be given to children who are attending four-year-old kindy in early learning centres but up until recently that hasn't been possible."

The Preschool Reform Funding Agreement, that started last year, funds the delivery of 15 hours of preschool a week, or 600 hours a year, for all children in the year before they start school.

This article is republished from **Business News**. Read the original article [here](#).

ACA president Paul Mondo said the sector urgently needed at least 10,000 qualified early childhood educators and teachers to fill vacancies, when the survey data was announced in June. "We simply do not have enough people to meet the demand for early learning and care whilst also remaining compliant with the educator ratios put in place to ensure the safety and well-being of children and staff alike," he said.

Initiatives

State Early Childhood Education Minister Sabine Winton recently announced an expression of interest process to allocate a \$4.1 million fund to regional early childhood education and care centres. The fund is additional to the \$1 million grant funding program for local governments to attract and retain staff in early childhood education and care, also in the regional areas.

An Early Childhood Education and Care Job Ready program was also rolled out to new locations last month, according to Ms Winton. A continuation of fee-free TAFE courses, including early childhood education qualifications, was also recently announced by the state and federal governments.

State training Minister Simone McGurk said WA had smashed its targets for fee-free training enrolments. "Continuing this successful initiative for Western Australians into 2024 and beyond will see more students graduating with industry-relevant skills in the areas our economy needs most," she said.

Dr Roberts agreed there had been an increased focus on early childhood education, particularly with the creation of a dedicated ministerial portfolio.

However, Dr Roberts said the momentum needed to continue. "This is now the time for things to change...and it's really important that we keep bringing up these issues around conditions and the importance of making sure that children who need access to quality early learning are getting it," she said.

"At the moment, your postcode is still one of the biggest determinants of good educational outcomes and that actually shouldn't be the determinant."



Credit: Rawpixel.com/shutterstock.com

Kids being left behind in writing

Dr Anabela Malpique, Senior Lecturer, School of Education.



Kids are struggling to master handwriting skills essential to later learning because they are not getting enough time to practice, experts warn.

Occupational therapist Hannah Fairburn from Western Kids Health said demand for group handwriting workshops for students in the early primary years has rocketed in the past four years growing from just two classes for all of 2019 to 16 this year, "There's a lot of pencil grip difficulty, a lot of problems with letter and number formation and overall legibility, she said.

Many children had fewer opportunities to develop their hand and finger strength because they were more likely to play games on iPads or laptops than to spend time independently writing or on other activities.

"Kids are doing a lot of school-based learning games on the iPads but not so much handwriting," she said.

"They're doing more poking and pressing at an iPad or computer screen,"

"We need to encourage younger children to use and strengthen their hands, to play with Lego, playdough, unclip pegs, thread beaded bracelets. That is the foundation for handwriting,"

Ms Fairburn said the letter shapes that kids have the most trouble reproducing include lowercase b, d, p and q.

"What would happen with the b and the d is that the kids start them mostly from the top and draw a line down, b then they don't know which direction it goes," she said.

While a b should be started at the top, a d should be started at the middle. Ms Fairburn said if students' poor handwriting was not picked up in the early years, then by the time they got to Year 12 they did not have the strength or stamina needed to write essays under exam conditions.

This meant that examiners were likely to dock students' marks if their writing was illegible.

I've had kids that are typing and using iPads at school from as young as Year 2 or Year 3...and that's really terrifying when you think they are all going to have to hand write in Years 11 and 12," She said.

WA research released last year suggested many children may not be getting enough writing instruction in primary school classrooms - with some spending as little as 15 minutes a week on it.

Teachers who responded to a survey for the Edith Cowan University study reported they needed more support in learning how to teach writing.

ECU researcher Anabela Malpique, who led the study, said national and international research had consistently found that primary school teachers emphasised spelling teaching over other skills such as handwriting and keyboarding.

This article is republished from **The West Australian**. Read the original article [here](#).



Research in the School of Education



Associate Professor Melanie Brooks, Associate Dean – Research

Written by School of Education academics, please find below a selection of recently published articles which are available to you without any subscriptions. Please click on the links to view these journal articles which are all freely available. Find out more about our research at ECU by following this link: <https://www.ecu.edu.au/schools/education/research-activity>

Being grateful for the crumbs": Empathy, stress and vulnerability experienced by teaching-mothers in the performing arts in Australian schools. Teaching and Teacher Education.

Gray, C., Lambert, K., & Green, T. (2023).
<https://doi.org/10.1016/j.tate.2023.104298>

This article explores the experiences of female performing arts teachers in Western Australian schools who resumed teaching after becoming parents. The article reveals the passion and commitment these teacher-mothers have for their work and their desire to maintain their career. The findings show how the experience of motherhood complemented and enhanced their pedagogy and relationships with students and carers, and the vital contribution they make to the profession. However, the experiences of these teacher-mothers also revealed the unreasonable expectations of performing arts teachers to produce large scale productions, often without financial remuneration or time in lieu.

These expectations as well as the inflexible school systems in which they work are not conducive to their emotional or financial wellbeing. The stories relayed by these teacher-mothers show how their return to work has been stressful and laden with guilt, leading to burnout and ultimately attrition. Given the alarming teacher shortages and teacher attrition in Australian schools, this article highlights the need to support teacher-mothers to return to the profession they both love and excel in.



"I don't want to come back now": Teacher directed violence. Issues in Educational Research, 33(3), 920-936.

Erskine, M., Ferguson, C. & Ayre, K. (2023).
<http://www.iier.org.au/iier33/erskine.pdf>

Teacher Directed Violence (TDV) can be defined as physical or verbal violence directed at teachers by students, parents, or work colleagues. Unfortunately, TDV is on the rise globally, and here in Australia. There is a dearth of research in Australia on this phenomenon however, the limited research available suggests that parents are the main perpetrators in primary schools and students are the main perpetrators in high schools.

In our research interviewing high school teachers in Western Australia, we found that the participants wanted to leave their employment after experiencing an incident of TDV. This was largely attributable to the lack of support from the leadership team at the school and the absence of consequence for the perpetrator. The teachers interviewed felt traumatised and embarrassed by the experience. They experienced physical distress such as crying and shaking, but overwhelmingly they felt disempowered and disregarded with a sense of hopelessness that this experience could happen to them again in the future. Hopefully our research will encourage discussions around how TDV is dealt with in schools and how teachers can be protected from and supported after an incident of TDV which may contribute to a reduction in the turnover and attrition rates in the teaching profession.

This study is part of a larger study and if you have experienced TDV and feel that you would like to participate in this research, please contact us at m.erskine@ecu.edu.au.

Invisible women: Gender representation in high school science courses across Australia. Australian Journal of Education.

Ross, K., Galaudage, S., Clark, T., Lowson, N., Battisti, A., Adam, H., Ross, A. K., & Sweaney, N. (2023).

<https://doi.org/10.1177/00049441231197245>

For children to develop a positive sense of identity and belonging, it is important for them to have access to accurate and authentic role models related to their gender and cultural backgrounds. This study was conducted as part of the IncludeHer movement, a movement promoting gender equity in science, technology, engineering, and mathematics (STEM). The visibility of female role models in science is vital for engaging and retaining women in scientific fields. In this study, we analysed four senior secondary science courses delivered across the states and territories in Australia: Biology, Chemistry, Environmental Science, and Physics. We compared male and female representation within the science courses by examining the mentions of male and female scientists along with the context of their inclusions in the syllabuses.

We found a clear gender bias with only one unique mention of a female scientist, British chemist Rosalind Franklin, named in coursework in Queensland, South Australia, and the Northern Territory, with all others exclusively referencing male scientists. We also found a clear Eurocentric focus and narrow representation of scientists which could negatively impact students from culturally and linguistically diverse communities and contribute to lower levels of self-confidence, belonging and uptake of STEM studies.

Existing initiatives targeting university students and researchers take place long after perceptions of a male-focused and European-centric STEM community are established. The bias found in this study will contribute to the continuing low engagement of women in scientific fields. We outline possible solutions to address this issue, including the accreditation of scientific discoveries to include female scientists and explicit discussion of structural barriers preventing the participation and progression of women in STEM. The research team is now engaging with curriculum departments in two Australian States to review gender representation in Senior Science Curricula and we hope to see other states follow suit.



The keys of keyboard-based writing: Student and classroom-level predictors of keyboard-based writing in early primary school. Contemporary Educational Psychology

Malpique, A., Valcan, D., Pino-Pasternak, D., Ledger, S., Asil, M., & Teo, T. (2023).

<https://doi.org/10.1016/j.cedpsych.2023.102227>

This paper shares findings from one research project included in the [Writing for All](#) research initiative, which is currently being developed at ECU's School of Education in collaboration with national and international scholars in the field. The main aim of this initiative is to examine student and contextual-level factors contributing to effective writing acquisition and development in primary education. In this project supported by The Ian Potter Foundation and the State Library of WA, we aimed at understanding both individual and classroom-level factors impacting students' writing performance when asked to compose stories using computers. Our study involved 544 Year 2 students enrolled in 47 classrooms from 17 primary schools in Western Australia.

Our findings showed that to support Year 2 students' computer-based writing, attention must be placed on multiple factors predicting students' writing performance. Namely, students' keyboarding automaticity, literacy skills (e.g., spelling and word reading), attitudes toward writing and gender play a significant role in explaining children's computer-based writing performance. Findings from our study suggest that more attention must be placed to support students in developing keyboarding skills to a point of automaticity, to free up cognitive load required for text composing. Our results showed that female students wrote longer and higher quality computer-based texts, with higher levels of keyboarding automaticity and attitudes towards writing when compared to their male counterparts. These results highlight the importance of developing differentiated keyboarding instruction and practice in the early years to address a potential gender gap in subsequent years of schooling. Overall, our findings reinforce the need of creating classroom environments that explicitly support children to compose high quality computer-based texts, aiming to foster effective writing development in the digital age.



Future Research & Career Pathway



Yuniar Siregar

PhD Candidate

About Yourself

I'm a full-time PhD student from Indonesia and I'm in my last year of my PhD journey, and receive support from the Australian government's Research Training Program (RTP) scholarship. Prior to my PhD study, I taught English as a foreign language in Indonesia for several years. I then decided to be a lecturer of English Language Teaching, so I could help improve the skills of the Pre-Service English Teachers in Indonesia. I received a scholarship from the government of Indonesia to pursue my master's degree in the United Kingdom, and then I returned to Indonesia and worked as a lecturer for several universities. I faced many difficulties while working as a returnee lecturer in Indonesia up to the point where I thought I had lost my identity as a lecturer. I decided to quit the job, to take a break from working, and to understand what I had experienced through the research that I am now conducting for my PhD study.

Why did you choose ECU to do your PhD degree?

It was easy to make up my mind that I would study at ECU, because after looking at some information online about ECU, I found that ECU is highly reputable for its School of Education and that one of its research focuses is on the area of Teacher Education. I also found that there are many PhD graduates whose theses are in the area of TESOL (Teaching English for Speakers of Other Languages) and identity, which are similar to my interest. Therefore, I believed that I would find suitable supervisors for my research and that I would be supported throughout my research journey. In addition, ECU is located in the city of Perth which is very close to my hometown in Indonesia. I found that there are many Indonesian diaspora in Perth and therefore, I believed that it would help to make Perth feel like home for me. I was also persuaded by several online sites that stated that Perth is one of the most liveable cities, which now I find to be true.

What have you enjoyed the most?

I enjoy the opportunities for presenting and discussing about my research to other fellow PhD students and academic staff. The School organises plenty of events for this to happen, both monthly and annually, as well as online and face-to-face. I enjoy and I am grateful for my relationship with my supervisors, who I respect. They are not only supporting me academically, but also emotionally. I also receive continuous support from my fellow PhD students and alumni, who I talk to and meet regularly. The ECU HDR Communication Advisor team has also supported me immensely and has been my strength throughout the difficulties I faced during my study. This abundance of support is very helpful, and I cannot say thank you enough to these people.

What is the focus of your thesis?

I am looking at the identity negotiation that Indonesian academics experienced after they had graduated from western countries and were working in Indonesian universities. The data that I have collected showed that my participants were navigating through the push and pull of various ideologies such as neoliberalism, individualism, and Javanese traditionalism, which conflicted with each other and affected the academic returnees' morality and the way they maintained a coherent and positive sense of themselves. As the Indonesian government scholarship awardees, these academic returnee lecturers were struggling to contribute and to perform as mandated by the government. It is hoped that my study could help institutions and the Indonesian government to improve the returnee development program and implement changes in higher education. It is also hoped that my study may add new insights into language teacher identity and transnational academic mobility.

What will you do after your PhD has ended? and why?

Once my PhD is completed, I am not sure if I will return to work as a lecturer in a higher education institution in Indonesia. Although I have enough understanding and have developed the awareness of what I will face if I wish to return, I believe that it does not make the challenges any easier. However, I have the passion to continue conducting research in the area of return migration and plan to publish from my PhD. Therefore, I wish to work for a research institution or department in or outside higher education. I also wish to be able to support my fellow academic returnees who mostly feel that they are isolated and alone. I hope to collaborate with established platforms, such as several Indonesian government scholarship alumni organisations, to provide programs or events in order to help create a more positive return experience.



Vice Chancellor's Professorial Research Fellow Narelle Lemon joins ECU's School of Education



Professor Narelle Lemon

Vice Chancellor's Professorial Research Fellow and Professor of Education, School of Education.

I'm a passionate educator, researcher, scholar and creative. I just love to learn. I have a deep love of nature, making, and green tea. I grew up in regional Victoria, and after living in Melbourne for 23 years in late September this year, I relocated across the country to Perth to take up my new role as VC Professorial Research Fellow with Edith Cowan University. It was with a mix of a heavy heart and excitement for new adventures that come with WA that I said goodbye to Swinburne University of Technology where I had held the position of Associate Dean Education with the School of Social Sciences, Media, Film and Education and led learning and teaching innovations across four departments and two research centres. In this role I am most proud of a Pedagogy of Belonging that we co-designed and implemented for ourselves as colleagues and for our students.

Before becoming an academic I taught in schools across Victoria and Tasmania. I started my career as a secondary music teacher, moving to then teaching arts across early years, primary and secondary, before having the honour to work as a classroom teacher in the Grade 1 classroom. I've also worked closely with museums, galleries, and community arts festivals nationally and internationally, embracing these innovative spaces for formal and informal learning. I still love the classroom and take any opportunity to spend time there. Throughout my career I have always been drawn to wellbeing, care, and kindness in our learning communities. And I'm especially fascinated in how we can explore this through creative methods and arts-based practices.

In the last few years I've been exploring this through projects utilising Instagram as a community of practice, mobile documentary making, and podcasting via 'Teachers Supporting Teachers' (available on Spotify, Apple and all your fav platforms) to leverage the intimate opportunity audio allows us to deeply listen to each other.

So, no surprise one of my main research areas is wellbeing. I bring an interdisciplinary background across the fields of arts, education, and positive psychology to ask big questions and think about things in new and different ways to make a ripple effect. My research expertise and focus are on fostering wellbeing literacy in the contexts of K-12 schools, initial teacher education, higher education, and community education. I'm focused on capacity building in wellbeing and self-care of proactive action across diverse areas of evidence-based wellbeing science to flourish.

I'm really interested in how we build a capacity to compose and comprehend an intentional language for and as wellbeing for I, we, and us. I think about self-care from a strengths perspective and that it is underpinned by self-compassion, self-love and self-awareness. To build our self-care resources we need a toolbox that draws from diverse areas of wellbeing science. I've been thinking about this from the five dimensions of mindful awareness, self-compassion, empowerment and agency, habits and time, and have just authored my first solo book about this for educators due out in April 2024 through Routledge.

As I settle into Perth, I'm so looking forward to making connections, forming new collaborations with colleagues, peers, schools, community, and creatives across WA. Please do feel free to reach out for a green tea and a chat re exciting ideas. Contact me via email n.lemon@ecu.edu.au.



Digital Media and Developing Minds International Scientific Congress - Washington DC

Stephanie Milford, PhD Candidate, School of Education.



Stephanie Milford, School of Education PhD Candidate attended the Digital Media and Developing Minds International Scientific Congress in Washington DC, USA from September 20th to 23rd to present emerging PhD research on the relationship between shame, parent self-stigma and parent self-efficacy in the context of children's digital device use.

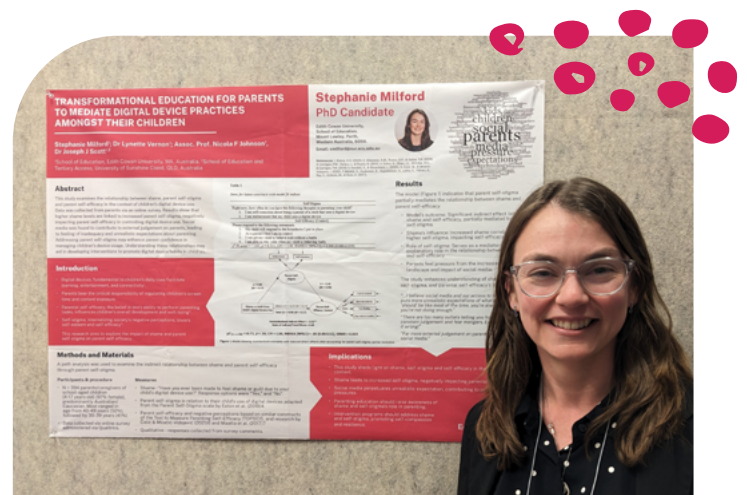
The Children and Screens International Scientific Congress: Digital Media and Developing Minds held in Washington DC, USA, in September 2023 brought together researchers, clinicians, educators, and others with expertise in psychology, psychiatry, neuroscience, paediatrics, to delve deep into the complex relationship between digital media and child development. Alongside the scientific program, attendees had the chance to connect, share insights, and network, fostering collaboration and idea exchange. The Congress featured an extensive array of topics reflecting the multifaceted impact of digital media on children's development including but not limited to early digital media use, the role of parents and parenting, technology, learning and education, and mental health.

After having my poster abstract selected and receiving financial support from Children and Screens to attend, I had the opportunity to represent ECU's School of Education at the Congress.

I presented my emerging PhD research, via poster, on the relationship between shame, parent self-stigma and parent self-efficacy in the context of children's digital device use. This study sheds light on shame, self-stigma and self-efficacy in the parenting context. Results show that higher shame levels are linked to increased parent self-stigma, negatively impacting parent self-efficacy in controlling digital device use.

This study highlights the crucial role of education in addressing shame, self-stigma, and self-efficacy in the context of parenting and children's digital device use.

To improve the well-being of parents, parenting education should focus on increasing awareness of the impact of shame and self-stigma in the parenting experience. In essence, education plays a key role in helping parents navigate the challenges in mediating children's digital device access.



School of Education Scholarship Winners 2023

Dr Susan Holland Scholarship

Carol Puddicombe

Lincoln McCashney Memorial Scholarship

Joel Eyre

Fogarty Foundation Scholarships

Hayley Laing, Belinda Tomlins, Jonelle Loranta, and Gillian Rosanna Erasmus

Lesley Lillian Graham Award (Bachelor of Education - Secondary)

Cassidy Bodenham

Mineral Resources Melville Rotary Education Scholarship

Joshua Dalton

Kate Mullin Education Association Scholarship

Brooke Cuthbertson

Teachers Mutual Bank Limited Postgraduate Education Scholarship

Kelly-Anne Barker



If you are interested in sponsoring a scholarship please contact Dr Julie Boston via julie.boston@ecu.edu.au.

Support ECU's Future Teachers Fund through Giving

Professor Caroline Mansfield, Executive Dean, School of Education.



It's been wonderful to see the support for ECU's Future Teacher Fund these past few months. Thank you to those that have supported the campaign, either by donating or by sharing our campaign video's.

Hannah's Story

There are more than 220 of our teaching students who experience financial hardship in their final year of study. Sadly, students like Hannah are doing it tough right now. ECU's Future Teachers Fund will provide a \$5,000 Scholarship per student to those most in need of financial assistance during their final year professional experience placement. [Watch Hannah's story.](#)

Jack's story

From school leavers to career switchers like Jack, we need to support our future teachers! Help us prevent finance and the cost of living from being a barrier to becoming a teacher. [Watch Jack's story.](#)

Support ECU's Future Teachers Fund

Help students pursue their educational dreams. Funds raised through ECU's Future Teachers Fund will provide a \$5,000 Scholarship to students of Education who are most in need of financial support during their final year professional experience placement. During this full-time compulsory professional experience placement students cannot undertake their regular paid employment. With your generous donation, we hope to ensure our future teachers avoid financial hardship during this important time and are supported to complete their degree.

Make a donation

You can make a one-off donation or establish a regular gift by clicking the links or scanning the QR codes below. You can also make a donation by calling (+61 8) 6340 2761 and/or talk to our friendly Development Team to discuss how your donation can make an impact.



Donate Online



PDF Donation Form



(+61 8) 6304 2761

Unlocking Potential: ECU Children's University Program Beckons South West Schools!

We are delighted to extend an exclusive invitation to your school community to embark on a transformative educational journey with ECU's Children's University program, now available in the South West region. This internationally acclaimed initiative, spearheaded by Children's University Australasia & Africa Indian Ocean (CUA), has been a beacon of inspiration in fostering learning excellence since its inception in 1993.

Why Join the Children's University Program?

Our program, catering to children and young minds aged 7-14, is not just an extracurricular activity — it's a gateway to engaging additional educational opportunities. By participating in exciting and diverse learning opportunities, this program empowers members to take charge of their educational journey, setting the stage for a brighter future.

Closing the Opportunity Gap

In the vast landscape of Western Australia, not all children have equal access to high-quality extracurricular opportunities. The Children's University program aims to break down these barriers, providing a bridge to post-school learning pathways. This program aims to nurture the social, emotional, and academic development of every child, ensuring a more promising future for our greatest assets — the young minds of Western Australia.

Proven Success in Western Australia

Established in 2017 by Edith Cowan University (ECU) and further strengthened through the Children's University Western Australia Partnership (CUWAP) with the University of Western Australia since 2020, our program has reached over 2900 students across 40 schools in Western Australia. The CUWAP collaborates with 99 community and cultural organisations, including zoos, museums, galleries, sports clubs, councils, and libraries, to provide a rich tapestry of extracurricular learning experiences.

Empowering Learning through University On-campus Experiences

Throughout the year, Children's University members and their families are invited to participate in free ECU on-campus school holiday programs. These fun, hands-on workshops are delivered by academic staff and university students and are designed to have links to higher education learning and courses. These are excellent opportunities for children and their families to experience and feel welcome in a university setting.

Learning achievements of Children's University members are then celebrated at annual graduation ceremonies held at ECU campuses. Over 1000 graduates have emerged from our program since 2017, having dedicated over 64,500 hours to extracurricular learning. These ceremonies not only acknowledge the participants learning efforts but also instil a sense of accomplishment and pride in their academic journey.

Endorsement from Mr Colin Pettit

Mr Colin Pettit, Vice Chancellor of the Children's University WA Partnership and former Western Australian Commissioner for Children and Young People, attests, "I believe the potential impact of the Children's University program is enormous. Facilitating educational opportunities is the best investment that any organisation can make."

Your Invitation to Join the Children's University in the South West Region

As we extend our program to schools in the South West region of Western Australia, we invite you to explore the possibilities that Children's University can bring to your school community. Join us in shaping a brighter future for the young minds of the South West.



SHORT COURSES

Our professional learning programs have been designed with teachers in mind. The programs are delivered by qualified and experienced ECU educators with high level content and pedagogical knowledge and reflect adult learning principles. These courses are embedded in evidence-based teaching practices and are responsive to the cultural backgrounds and contextual circumstances of the participating teachers.

For more information and to register, view our current short courses [here](#) or scan the QR codes below.



Fully Online

Understanding Childhood Trauma: An introduction for educators

Trauma-affected children can be found in any classroom and any school. In fact, one in four children experience a traumatic event before they turn three years old (Child, J. 2017). Trauma impacts development, behaviour and learning.

This short course is an ideal introduction to childhood trauma for all educators including parents, carers and youth workers. Providing effective support for children and young people affected by trauma begins with educators who are trauma-informed. By building your understanding and knowledge you have a better chance of making a positive difference.

Cost

- \$175 to undertake the course which includes all reading materials, case studies and online activities.
- A 10% discount is offered to ECU alumni and for multiple bookings from the same organisation.



Fully Online

Trauma and Development: Understanding the impact for educators

Children and adolescents who live in adverse circumstances where there is neglect, abuse, or violence live in a state of hypervigilance and with toxic stress from experiencing ongoing, traumatic events. Toxic stress sabotages development and wellbeing – the brain and the body struggle to function effectively, the consequences of which, can be far reaching. This short course looks at the impact of adversity and toxic stress on development, focussing on the brain. Educators will build their knowledge and understanding of children and adolescents whose development has been interrupted by toxic stress and trauma.

Cost

- \$175 to undertake the course which includes all reading materials, case studies and online activities.
- A 10% discount is offered to ECU alumni and for multiple bookings from the same organisation.



Fully Online

Trauma and Behaviour: Reflecting and responding for educators

Behaviour is communication. Behaviour for the child or young person living with trauma is often an expression of their struggle to cope. This may include struggling to cope with managing big emotions, struggling to cope with learning and struggling with being with others. Trauma means days are full of struggles and feelings of fear. This short course aims to build your understanding of children and young people's trauma-driven behaviour and your knowledge of evidence-based strategies so you can more confidently and effectively, guide and support their development of self-regulation and behaviour competencies.

Cost

- \$175 to undertake the course which includes all reading materials, case studies and online activities.
- A 10% discount is offered to ECU alumni and for multiple bookings from the same organisation.



Face-to-Face

Semester One 2024 Dates

Day 1 - Saturday 27 April 2024
Day 2 - Saturday 18 May 2024
Day 3 - Saturday 15 June 2024

The Science of Reading: Translating research to classroom practice

Have you ever wondered how the human brain translates these squiggles and dots on a page into sounds and spoken words? Part of what we know is that learning to read is a complex neurological process that humans have taken 1000's of year to figure out. Despite this, we expect children to achieve this in the first few years of school. This three-day course is designed to bridge the gap between research and practice and make explicit how evidence-based models of reading have determined the essential components required for the human brain to efficiently build a reading circuit and for a brain to learn to automatically recognise words.

Cost

- \$889 including GST (Course includes all reading materials and case studies).
- A 10% discount is offered to ECU alumni and for multiple bookings from the same organisation.



ECU Education Alumni spotlight:

Athanassia Iosifidou Lima

Master of Education, 2016.

When Athanassia first decided to research a postgraduate teaching degree to study, she was at a crossroads in her career.

"I came to ECU as a postgraduate student after completing my undergraduate and graduate degrees at a different Perth university. After four years of theory and research in Psychology and Education, I entered the language teaching sector feeling unprepared and struggling to deal with everyday student issues, the teaching load and how to best work with management," says Athanassia.

"I almost left teaching entirely before I decided to look for a practical Educational Leadership degree and give it one last go."

For Athanassia, the decision to study the Master of Education at ECU was an easy one.

"ECU was a clear choice in terms of a 'hands-on' [Master of Education](#). The subjects and topics matched my interests and were also broad enough so that I could move within the education sector.

It was delivered in hybrid online/in person model (not so common in 2015!), so that was a bonus."

Since graduating from ECU, Athanassia's career has gone from strength to strength, thanks to the practical strategies and skills learnt through the Master of Education.

"The course focused on practical strategies and drew case studies from our own workplace helping us deal with our actual difficulties. Suddenly going to Uni on a Saturday didn't seem so bad when you could discuss the week's work problems with your lecturer and classmates and have an action-plan by Monday! Needless to say, I stayed in language teaching and thrived after completing my Master of Education at ECU."

Another highlight of the degree, to Athanassia's surprise, was the research project.

"I was initially dreading the research project but with the support of ECU lecturers, I did not only complete it successfully, but it became my focus and the basis of a project I presented at educational conferences nationally and internationally in subsequent years."

This article is republished from [Alumni News](#).
Read the original article [here](#).



Athanassia now heads the Training Support Section at the Defence International Training Centre in Melbourne which teaches English to foreign military.

"I manage a team of education support staff such as Moodle experts, multimedia and publishing gurus, testing and evaluation professionals, an IT specialist and a librarian." Although the role means Athanassia has stepped out of the classroom, she can still see the impact of her role.

"I always said that I needed to be in a job that had a higher purpose or made a difference. I feel that my current position allows me to do exactly that by developing others to do their job well, and positively impact those at the receiving end of our services."

"Even though I've left the classroom, my team and I make a direct positive impact to the students' experiences before, during and after class time which is what I always strived for, but more than I could ever fully achieve as a classroom teacher."

Her advice for current students, or people seeking a course to study?

"When choosing your subjects, do not focus solely on the title or major. Look at what specific topics you will be completing and whether they actually interest and serve you. Do you prefer theory or practice, and do you see yourself working in a job that requires more of one or the other? Does the delivery mode suit your current arrangements? Are there more lectures or tutorials and which do you prefer? Choose for you, your interests and your future!"

Explore our Education Postgraduate courses [here](#)

Student

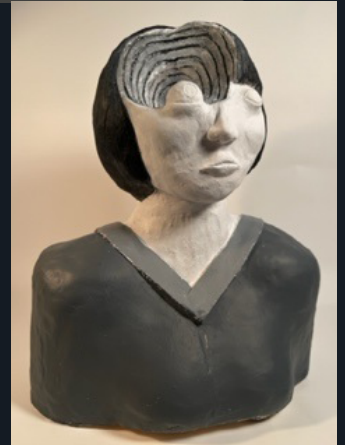
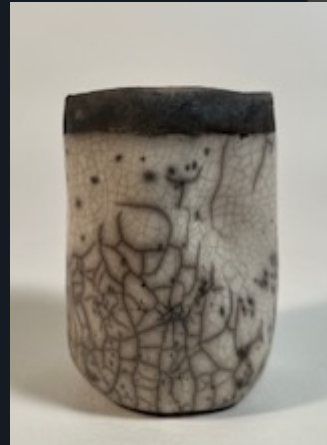
SHOWCASE

A selection of some of the recent stunning creative works by Pre-Service Teachers in the fields of Technologies and Art Education.

Hui Zeng



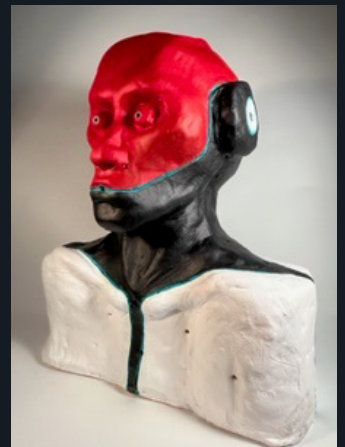
Nikita Nankville



Mitch Hancock



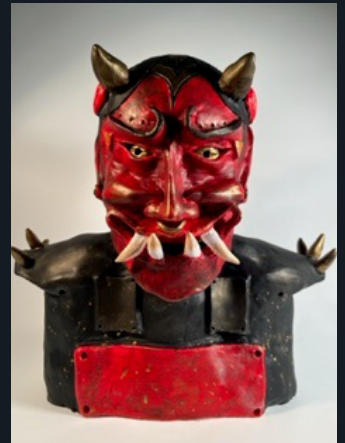
Kirsten Mary Brand



Abigail Blackburn-Carvajal



Orla Carroll



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