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ORIGINAL ARTICLE

The LAB school project: a socio-ecological investigation into the intersection between literacy, the arts and wellbeing in a rural early years classroom setting

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Abstract
This study examined the piloting of a literacy, arts and wellbeing (LAB) project in a rural school in Queensland, Australia. The research involved a Year 1 class ($n=24$) participating in co-designed lessons with their classroom teacher and two visiting researchers from a regional university. These lessons were developed with literacy learning outcomes, arts-based approaches and positive education components in mind. Lesson observations and artefacts were collected to understand the children's participation and development of the learning objectives. In addition, teacher interviews and researcher reflections provided feedback about the approach's effectiveness. Data were analysed using an arts-based social engagement model to improve health. Evidence from this case study showed that language and literacy learning outcomes and wellbeing were strongly developed through the LAB approaches. More research is needed to know if a whole school LAB approach would benefit children across other settings.

Keywords Literacy · The arts · Wellbeing · Early years · Positive education · Socio-ecological model of mental health

1 Introduction

Literacy remains an all-time priority in schools across the globe due to declining results in reading and writing (De Jong, 2023). While traditional print-based literacies are important, students also require the ability to comprehend and compose a range of texts, including those that might feature images, sound and gestures (Barton, 2019). Further, many researchers have offered ways to improve children's broader literacy outcomes, acknowledging the need to improve children's wellbeing due to high levels of stress and anxiety, particularly post-pandemic (Barton, 2023; Barton & Burke, 2024; Shin, 2023). For this paper, we define literacy as a social practice (Kress & Rowsell, 2018) that needs to be taught through socio-cultural lenses. In today's world, the ability to communicate

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effectively through a range of modes and in diverse contexts is increasingly necessary. This emphasises the work done by Cope and Kalantzis (2023) in the field of multiliteracies who acknowledge the diversity of both texts and people.

Despite the ongoing differences between traditional and contemporary views of literate practices (see the Science of Reading vs enjoyment of reading for e.g.), we value both perspectives and believe it is important that students in Australian schools learn to read and write in Standard Australian English language but also learn how to communicate in diverse ways as this encourages an inclusive approach to communication and learning, which is much needed in children's lives (Scholes, 2024; Stocker et al., 2023). We also noted teachers are expected to align their classroom work with curriculum requirements (Ryan & Barton, 2014). Therefore, we refer to content included in the Australian Curriculum, including English, History and the Arts, as guided by the teachers in this study (ACARA, n.d.). For this study, the Arts referred to the forms represented in the Australian Curriculum—dance, drama, media arts, music and visual arts. We also consider literature, as featured in the English curriculum, as an artform.

To meet the expectations of the curriculum as well as children's learning needs including wellbeing, we worked alongside an early year's classroom teacher and 24 children to (1) plan rich literacy learning cycles with arts-based activities at the core and (2) implement positive education approaches in the classroom when teaching these learning cycles. To guide the research, we referred to Rodriguez et al.'s (2024) model of arts engagement and health behaviour to address reported mental health inequities of children living in rural areas (Blackstock et al., 2018; Morales et al., 2020). As such, the LAB study is aimed at answering the questions: How can co-designed, arts-based and positive-informed approaches to lesson design support literacy learning in the classroom? And can such an approach impact the children's and teacher's wellbeing? In finding answers to these questions, we explored scholarly literature exploring literacy, the arts and wellbeing in schools.

2 Literature review

In this brief overview of the literature, we explore the everchanging nature of literacy, arts-based pedagogy, positive education and early years learning. We bring these concepts together to offer a way of implementing the LAB school project in schools.

2.1 The everchanging nature of literacy

Much research in literacy education acknowledges the fluidity of learning to read and write in a contemporary world. Increasingly, people communicate through diverse means including gesture, language, image, sound and space; and with technological advancements, this is predicted to expand greatly (Barton, 2019). The United Nations Educational, Scientific and Cultural Organisation [UNESCO] (2023) states that 'literacy is now understood as a means of identification, understanding, interpretation, creation, and communication in an increasingly digital, text-mediated, information-rich and fast-changing world' (p. 1), and all educators should 'ensure inclusive and equitable quality education and promote lifelong learning opportunities for all' (p. 1). This aligns with Sustainable Development Goal number 4 on equitable education, recognising that vulnerable groups, including those that live in rural or remote areas, need more support at the same time as taking advantage of digital technologies (UNESCO, 2019).

Indeed, the forms of communication used by people around the world have and continue to increase daily with new platforms such as Instagram, Threads and TikTok gaining popularity amongst young people. It is therefore necessary for schools to not only be aware of these forms of communication but also draw on the knowledge that children have gained in diverse communicative modes in their learning (Barton, 2019). Understanding literacy in this way is important for all children especially those that may need special assistance or have different ways of knowing. In a similar way, art educators have proven the value of using the arts as a way of activating learning as well as self-expression (Dunn & Jones, 2022).

2.2 The importance of the arts

Many scholars have argued the importance of the arts in children's lives, specifically in relation to literacy learning (Barton, 2023), and health and wellbeing (Malchiodi, 2020). Teaching the arts in schools is important as they develop many skills such as creative and critical thinking, care and compassion, and they also assist children in being able to communicate effectively in an ever-changing world. In this sense, the arts are 'not just an expression of emotion but also a medium for communicating ideas' (Kobra, 2022, p. 1). The arts also embody social and cultural values and can act as a way of expressing sociopolitical views in times of adversity.

These include the development of personal attributes such as self-confidence, self-expression and self-worth (Sookpiboon & Bovornkitti, 2019); and social benefits including teamwork, problem-solving and decision making (Harris, 2017). Others also believe that the arts improve social cohesion (Cancellieri et al., 2018), wellbeing (Mastandrea et al., 2019) and empathetic understanding (Kou et al., 2020). The arts have also been used to support children' engagement in learning. For example, Chapman's (2015) study explored the concept of arts immersion, an approach that uses the arts as core to all learning.

In relation to education and health, there is strong evidence that the arts can have a profound effect on transforming an individual's and group's mental health outcomes (Zarobe & Bungay, 2017). For example, in education, the arts can enhance learning and cognitive skills including creative and critical thinking, artistic reasoning and problem-solving (Barton, 2019). Further, improved academic results have resulted from students' participation in the arts (Jindal-Snape et al., 2018) including literacy and mathematics (Chapman et al., 2021).

The holistic development of children is also reported to improve due to arts participation (Willem, 2020) as well as engagement and motivation to learn (Pavlou, 2006). These, in turn, impact health outcomes through the reduction of stress (Martin et al., 2018), physical health benefits (Fong Yan et al., 2018) and by building community (Anderson & Bigby, 2021). By integrating the arts in educational curricula as well as healthcare practices, learning environments can benefit greatly.

2.3 Early years learning

The focus of this study was on an early years classroom. While the LAB project has been established across both primary and secondary years of schooling, teachers from this rural school were invited to opt into the project. As such, only early years teachers wanted to be involved at the time. We are now working with teachers across the entire school. Even though arts-based and positive education are beneficial for students of all age ranges, they have been

noted to be particularly relevant in the early years due to children's cognitive, physical and social development (Barton, 2019). The notion of play in the early years can also fit within an arts-based approach given imagination and creativity are critical to both (Ewing, 2006). Capacities such as critical and creative thinking, problem-solving and decision-making can all be supported through hands-on experiences and exploration (Pascoe, 2015). Children also learn how to socialise with each other through socio-emotional development. Through arts-based pedagogy, they can learn to navigate social interactions and regulate emotions. Further, language and communication are enhanced through play, storytelling, role-play and imaginative conversations (Cremin et al., 2017). These all help build vocabulary, oral language, narrative skills and comprehension (Hill, 2011). This was important for our study as the goal was to support children's literacy learning outcomes. In the *Early Years Learning Framework* (2018), it is noted that play and arts-based learning is crucial for young children's wellbeing and development.

2.4 Literacy, the arts and wellbeing

In the fields of literacy and specifically multimodality, researchers have explored the notion of literacy in the arts (Barton, 2014, 2019). These unique literacies are taught from Foundation right through to the senior years of schooling and feature in all art forms such as Dance, Drama, Media Arts, Fashion, Film, Literature, Music and Visual Arts. Arts literacies support children's development in thinking and being like an actor/artist/dancer/musician. In this sense, literacy in the arts can be defined as expressive and creative fluency through the use of all of the modes when communicating through various texts, cultural artefacts and/or performances (Barton, 2019).

While teachers are required to improve children's literacy results, this can create a lot of pressure to teach to the test (Macqueen et al., 2019). But it has been proven that creative and innovative approaches to pedagogy can improve not only literacy results but also wellbeing and engagement (Cremin & Chappell, 2021; Hannigan et al., 2019). Therefore, the intersection between literacy, the arts and wellbeing (Ewing, 2019) is what we were interested in, specifically in terms of student engagement, wellbeing as well as improved academic results.

Many scholars have explored the role that arts-rich pedagogy can play in supporting literacy learning. Early work by McMaster (1998) explored the use of literature and drama techniques to build literacy. McMaster argued that appropriate and affective language can be developed through drama and specifically playwriting. A focus on print and receptive written language can enable students' abilities to express knowledge and understanding, vocabulary development and fluency. Others in the early 2000s, including Aprill (2005), Ewing (2006), also explored drama techniques in developing literacy. Aprill (2005), for example, advocated for the arts in schools as they support literacy and social development. Aprill (2005) argued that as schools create the social fabric, inclusive of all learners, the primary function of the arts is to support bringing people together to learn from each other. Further, a work by McDonald et al. (2017) shows that participation in the arts strongly supports student wellbeing. Ewing's foundational work in drama, arts and literacy has shown positive results for not only students but also teachers (2014, 2019). Working alongside Saunders (2021), Ewing developed a program with the Sydney Theatre Company aimed at improving literacy outcomes for vulnerable children through the Sydney Story Factory.

In a similar way, a study conducted by Vaughan and Caldwell (2014), for example, reported on the impact of a program called *The Song Room*, implemented in schools in Australia. The study involved 10 schools in extremely disadvantaged areas in Western Sydney, Australia. A quasi-experimental model was implemented with three groups of schools. These included schools that participated in TSR for 12–18 months, some that participated for only 6 months and non-participating schools as a control group. Data were collected from eight schools via a social-emotional wellbeing or SEW survey that was developed by the Australian Council for Educational Research (ACER). The study found that children in the TSR program outperformed children who did not participate. This was evidenced through in-school achievement tests as well as external high-stakes tests such as NAPLAN. In addition, TSR children experience higher levels of SEW and resilience than the non-TSR participants. The longer that children were involved in TSR the greater the difference in results. While the program only ran for 1 h a week, the researchers found that children's participation in the arts greatly improved school attendance and hence raised literacy standards generally.

The LAB school project aimed to similarly improve children's literacy levels and wellbeing through a co-designed and positive approach to learning and teaching. We now turn to the theoretical framing of the project.

3 Theoretical framing

To inform this project, we drew on a Social Ecological Model of Health (SEMoH) developed by Rodriguez et al. (2024) involving several levels relevant to education and health or well-being in rural settings. These levels are individual, interpersonal, community, policy and cultural (Fig. 1).

The individual level, according to Rodriguez et al. (2024), 'is characterised by an individual's beliefs, attitudes, knowledge, self-concepts, behaviours, and skills' (p. 1). For an individual, the arts can be used in rehabilitative ways such as in reducing stress. Arts engagement has been reported to promote self-motivational beliefs and improve self-efficacy such as in literacy learning, especially where children might be struggling (Barton, 2019; Ganzermiller, 2018). In areas that are geographically isolated, such as regional, rural and/or remote locations, access to mental health services is limited. As such, Rodriguez et al. (2024) note that arts participation can 'present an opportunity to reduce burdens on the healthcare system through more easily affordable, preventative measures' (p. 2). The LAB project noted the importance of the arts in children's lives and had support from the principal at the school to implement innovative and creative approaches with the teachers and their classes.

The interpersonal level involves all the types of relationships one has with family, friends, neighbours and the wider community, including workplace colleagues. It includes anyone who may be a source of influence in the ways we behave, interact and for our health. This means aspects such as social networks and support systems need to be developed and indeed strengthened. Poor mental health often means a person is lonely or socially isolated leading to anxiety and depression (Almeida et al., 2021). Again, the arts have been reported to improve social connection and interaction between people (Barton et al., 2022; Coholic et al., 2020).

The community level relates to structures of power and the relationships within formal organisations. It deals with how these structures and relationships are mediated within

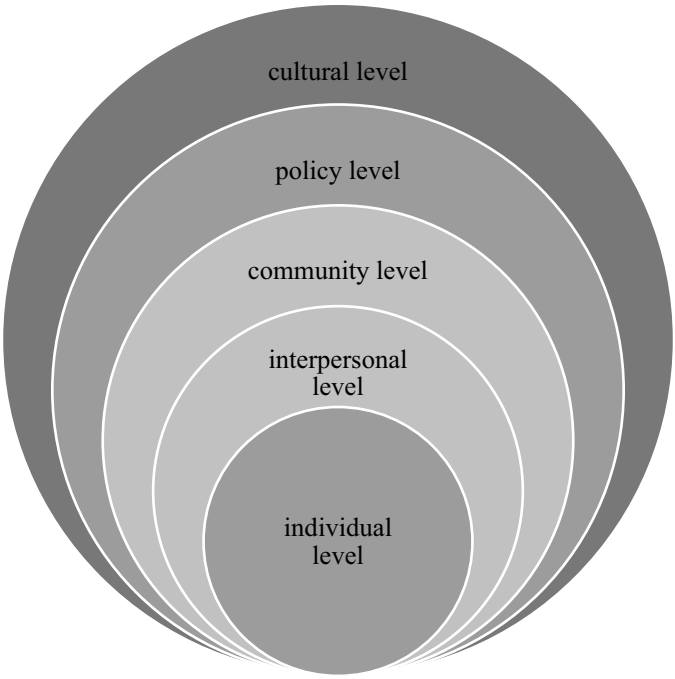

Fig. 1 Applied Social Ecological Model of Health (SEMoH) (Rodriguez et al., 2024)

certain contexts. According to the US Institute of Medicine, low health literacy is the core impeding factor to community-level health (McCormack et al., 2017; Rodriguez et al., 2024). Vulnerable communities, for example, often include older adults, people with disabilities, people from lower socio-economic circumstances and/or people with limited English proficiency. According to the Victorian Health Service, vulnerable children experience threatened safety and well-being due to either individual, parental, family or social conditions (Victorian Government, n.d.). Such vulnerability may be short-term or last a lifetime and '[w]hat is clear is that vulnerability is multifaceted and may not be readily apparent on an initial presentation at a health service' (Victorian Government, n.d., p. 1). It is therefore important for teachers and leaders in schools to consider different ways to support children who may be facing adversity.

Interestingly, in education, policy has been reported to be both enabling and constraining (Lord, 2023). Rodriguez et al. (2024) stated that policy can 'affect health through the restriction or promotion of behaviours while guiding change across social-ecological levels' (p. 2). Indeed, many educators comment on how curriculum can be restrictive, but it is the enactment that is the issue (Kennedy, 2022). Accountability, for example, has heavily influenced the ways in which schools implement policy, and despite the rhetoric that 'all children' needs should be met,' the reality is that the gap is widening between affluent and less affluent areas (Darmody et al., 2021; Reardon, 2013). This is a particular concern in regional, rural and remote locations where access to quality resources can be limited (Hillier, 2020; Mathis, 2003).

Policy, however, can be empowering, particularly if different jurisdictions work together. For example, according to Rodriguez et al. (2024), 'the arts, health care and social service policies can be designed to provide the public, and especially the underserved, with

additional access to arts-based experiences that support personal health and wellbeing' (p. 2). They argue that this is important given the many benefits that the arts have on wellbeing. A practice known as 'social prescribing' acknowledged the need to address poor mental health through social and arts-based involvement. It could mean that pressure is taken off health systems, shifting care to community groups, etc.

Social and cultural norms influence how we live and operate within different contexts. Notions of stigma, whether through cultural differences, disability or social standing, can greatly impact equity and hence health issues specifically related to access to adequate healthcare (Rodriguez et al., 2024). Stigma, according to the US Department of Health and Human Services, refers to 'the most formidable obstacle to future progress in the area of mental illness and health' (p.29). To shift thinking and practice, Abawi et al. (2019) advocate for cultural diversity and inclusion to empower people. Therefore, mental health services need to be open to all cultural and social practices and easily accessible to all. Rodgriguez et al. (2024) stated that:

> In communities, arts engagement can make health information clearer and more memorable by improving awareness of health issues and available resources as well as by increasing the sharing of knowledge. Such improvements and increases may be associated with individual and collective perceptions of thriving, an assets-based concept similar to wellbeing (p. 3).

For the LAB project, we were interested in seeing if an arts-based and positive approach to learning literacy could also improve the teacher's and children's health and wellbeing.

4 Methods

This qualitative research shares one case study involving a teacher and their year one primary school class. Working alongside the teacher, we co-designed a sequence of three lessons to support the literacy curriculum in the classroom. The lessons were informed by arts-based and positive education. For this study, arts-based approaches to learning cover a range of activities that use the arts as a stimulus for 'creative, cognitive, and practical processes, including conceptualisation, creating, performing, observing, using, integrating, and reflecting on art to understand other areas of knowledge and experience' (Hunter & Frawley, 2023, p.14). As such, the arts are used to support students' literacy learning. For example, students might sing rhymes, move to illustrate literary form and/or respond to art through poetry. Using the arts as a core of learning has been proven to engage students positively. Positive education considers teachers and students as learners and facilitators of learning and allows for both skill and happiness acquisition (Seligman et al., 2009). Informed by positive psychology, positive education seeks to 'promote optimal development and flourishing in the school setting' (Norrish et al., 2013, p.147). Consequently, teachers consider language and resources used in classroom settings to ensure inclusion and compassion (Barton & Le, 2023).

Before commencing the research, we obtained ethical approval from the university human research ethics committee (#ETH2021-0099) and support from the school principal. We also contacted the publisher of the book we wished to base our lessons around and received permission to use the images. The teacher and students were provided with information about the project, and consent forms were signed by teaching staff to conduct interviews about the project, as well as by parents/carers to permit children to be observed

and photographed. Children were asked to assent to being involved in the study including photos and artefacts. Children without permission to participate in the study still participated in all the activities, but we did not keep observation records or photographs of the non-participants in the research.

4.1 Setting and participants

This case study was conducted in a year one classroom in a regional town in Central Queensland affectionately known as the Possums. We had previously worked in the school, and the principal was excited about us coming to co-design learning experiences. The principal invited class teachers to nominate to be involved in the project, and three teachers participated. This paper shares the experience of one of the teachers and their class as we report on planning, implementing and reflecting on the lessons. We are two researching academics from a regional university and are registered teachers. As we co-taught the lessons with the teacher in the classroom, we were participant observers in the study.

4.2 The co-designed lessons

The study is aimed at identifying how language and literature, considered an artform itself, could be integrated into a History and Social Science (HASS) unit. Children were undertaking a unit in HASS on sequencing changes in their lives over time in a Storyboard (AC9HS1S06). The teacher looked at ways to embed language and literature into the unit, specifically how images could be used to create characters.

We wanted to use quality children's literature to support language learning in the classroom. The picture book *Not Now Bernard* by David McKee was selected as it effectively included simple images. For example, the book allowed the researchers to explain different types of camera angles, colours and layouts on different pages. The book was appropriate as the images told parts of the story that could not be told through language alone.

We additionally wanted to design this qualitative study to be a positive experience, using collaborative enquiry, working alongside teachers in classroom context to examine children's responses to instruction. As such, we employed co-design, a professional learning process that can be used by teachers to develop and implement lessons through discussion, action and reflection with others (Barton & Le, 2023). Using this approach meant that we researched *with* the teachers rather than *on* them. Oates and Bignell (2022) found that co-design can be a valuable way of bringing universities from macro and meso levels of interaction with schools into the micro levels of classroom practice. As such, using the socio-ecological model of health promotion as a framework, we hoped as researchers, we would interact on an interpersonal level with the children and teacher to build connections and improve wellbeing.

4.3 Measurement tools

To gather data to examine how co-designed, arts-based and positive-informed approaches to lesson design supported literacy learning in the classroom, we used a variety of measurement tools to support our qualitative approach. Lesson observations were recorded for each lesson. While one of us was teaching, the other took notes about the flow of the lesson, interactions with the students and any key phrases used between the teachers and the

students and comments on engagement and enjoyment in the class activities. Student work samples were collected as artefacts, and pictures were taken of the students during the lesson.

To measure student wellbeing, we used a simple wellbeing measure as proposed by Thompson and Aked (2009). The measure had smiley faces where two sad faces were not very happy, one sad face, not happy, a meh face for neither happy or sad. One smiley face represented happy and two smiley faces for very happy which the students completed after each lesson. We also gave students some smiley faces which they could informally colour in during the lesson if they wished. While using indicators to measure the wellbeing of students can be seen as subjective, Thompson and Aked (2009) proposed that subjective indicators are still useful, as they enable students to self-report how they think and feel about an activity. These experiences and how the students feel during learning are important for wellbeing. To similarly understand the impact on wellbeing, the teacher was interviewed by the lead author on the final day and asked questions about the planning, literacy learning, engagement and enjoyment, teacher pedagogy and ideas they may use in their class going forward.

We additionally used the 4Rs model of reflective practice (Ryan, 2011) to guide our own reflections at the end of each lesson. The 4Rs model involves four levels of reflection that are not necessarily linear. These include reporting, relating, reasoning and reconstructing. Aligning with many reflection frameworks, the 4Rs model invites practitioners to report on what they saw. This is usually a factual recount. Then relating these experiences to prior experiences or readings can assist in making sense of the event. Reasoning requires a deeper unpacking of an experience by asking questions such as why do you think this happened? What theories could relate to this experience? What have others said about similar situations? And finally, reconstructing asks how you might do something differently next time. Working through each level in no particular order can assist in reflecting more deeply on an issue.

In using these tools, we gathered data to explore the impact of these lessons on literacy, the arts and wellbeing for these students and teacher, as presented below.

5 Findings

5.1 Lesson observations and artefacts

In the first lesson, the children were introduced to how images can be used to create different characters and settings. This included how images in a text can be used to represent meaning, engage audiences or readers and be manipulated to create these meanings. Given we were working with young children, simple language was used to explain these meanings. As such, characters and settings, how a text makes you feel and layout were used to share how to 'read a multimodal text' through visual literacy skills.

Our selected book *Not Now, Bernard* by David McKee contained images of the characters, from different angles and perspectives. To illustrate the effectiveness of the book in portraying the character, the researchers first read the children the book without seeing the images. We asked the Possums what they thought of the story. One child said it was 'repeats the same thing a lot' and another 'it is kinda boring without the pictures'. Next, we read the book showing the images. With permission from the Publisher, we created a PowerPoint images of the characters and how they were depicted in scenes withing the

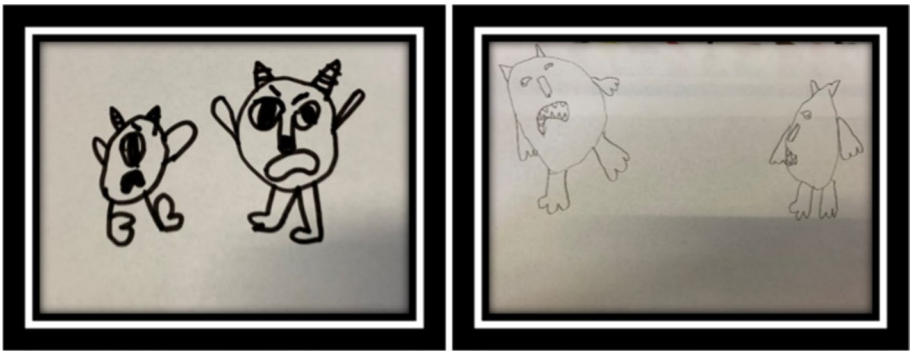

Fig. 2 Children's drawings of monsters' face-on (demand) and side-on (offer)

Fig. 3 Children's drawings experimenting with additional angles and perspective

story. For example, Bernard and the monster usually always were face-on (demand) to the viewer, whereas both his mother and father were side-on (offer). We had the children participate in an activity where they drew a monster (a) face-on and (b) side-on to think about different perspectives of the character when creating stories (see Fig. 2).

As the children were drawing the monsters, some started experimenting with additional angles and perspectives such as looking from the back and top (see Fig. 3 left) as well as placing the monsters on mountains of different heights (see Fig. 3 right). Given the students had identified back-view and top-down (birds-eye view), we showed images of these and added them into the rest of the lesson.

To continue to develop an understanding of the character, we then participated in a drama activity called 'freeze frame'. The Possums were placed into mixed ability groups and acted out poses similar to Bernard and the Monster in varying scenes. On the word 'freeze frame' children paused in their representation of the character, while a photo was taken by the teaching team (Fig. 4). We airdropped these to the large screen so all children could access the images. All children were able to identify whether the photograph was face-on, side-on and back and top down. Some of the children remembered the technical terms of demand, offer and birds' eye.

Fig. 4 Children freezing in their positions, face-on (demand), side-on (offer) and back and top (birds-eye view)

Prior to the next lesson, we removed the background images from one photo for each child using inbuilt technology in Apple photos (Fig. 5). With the publisher's permission, we inserted photos of the scenes of the book onto PowerPoint slides and inserted each child's image into the relevant scene (Fig. 6). This activity proved to be very engaging as the Possums loved seeing themselves in a 'real' picture book.

The second lesson focused on children learning to create their own representation of characters by considering camera angle (demand/offer and low/high) and camera framing (close-up, mid-shot and long-shot). We had organised toys such as dinosaurs and other small objects of interest to the children, along with a class set of iPads available within the school. At the beginning of the lesson, we discussed how camera angles and framing can impact our thoughts and feelings about the characters. To do this, we used the PowerPoint presentation we had created with the images of all of the children superimposed into the scene of the book. Specifically, we examined:

- Camera angle (demand/offer/back/birds-eye and low/high)
- Camera distance and framing (close up/mid-shot/long-shot)
- Emotions: Happy, sad, scary and angry (Martin & White, 2003)

We demonstrated ways to use the iPad to take photos of a dinosaur, including the use of angles and framing. We provided student choice and agency as the Possums chose their own groups, selected a range of different toys and were given an iPad. They were invited to move outside or stay in the classroom to take photos of their toys from different angles (e.g. front-on, side-on, birds eye view and from behind). We also invited them to think about how they were 'representing' their characters through emotions (Martin & White, 2003). For example, what might they do to make their character look happy, sad, angry, etc. The children had around 20 min to experiment with the toys and iPads in different ways (Fig. 7).

At the completion of the lesson, we shared some of the children's photos. By experimenting with different ways of using camera angles and framing, we aimed to scaffold children with knowledge to portray different characters. The following images indicated an understanding of camera angle and framing to show emotion. For example, children positioned a toy tiger high in the playground and took a photo from low to high to look 'scary' (Fig. 8).

Fig. 5 Photo of a child with background removed

Fig. 6 Images of children superimposed into the book *Not Now, Bernard*

Fig. 7 A child holding a tablet over the toy to take a birds' eye view and a dinosaur positioned in the garden

Another group of Possums placed the toy in a low position and took the photo from up high and explained they wanted to make their toy look 'scared' (Fig. 9).

These findings indicate the children were able to use camera angles and framing to show emotion for the character, which aligned with the Australian Curriculum content descriptions.

Fig. 8 A child positioning the toy tiger to look scary using close-up, low to high framing

Fig. 9 Image taken from high to low to make the toy look scared

Fig. 10 Examples of storyboards with six scenes

In the third lesson, children created their own photo storyboard. We began the focus lesson by providing children with story sequences from well-known story rhymes, e.g. Humpty Dumpty, Jack and Jill in six scenes. Then in pairs, children had time to come up with a story that they wanted to tell. Although we did not give constraints about

Fig. 11 Children experimenting with face-on low to high (left) and side on (right)

Fig. 12 A group using the iPad to take mid-shot and close-up

the topic of the story, most children used the characters that they had created in the previous lesson. Children used the storyboard (Fig. 10) to create a plan of their story, with a beginning, complication and resolution which were used as summative assessment for HASS. Most Possums were able to do create six scenes independently, and some required support to plan consecutive scenes. We were pleased to see creativity with angle and perspective in the children's drawings.

Finally, the children then used the iPads to take photos of themselves or toys to represent the storyline. This proved a joyous experience watching how engaged the children were in using the iPad to take images for their storyboard. During this final activity, we were able to identify students using camera angles (demand/offer/back/birds-eye and

Fig. 13 Children applying angles and framing to build character emotion

low/high) (Fig. 11) and framing (close up/mid-shot/long-shot) (Fig. 12) to build characters' emotion (Fig. 13). The lesson observations indicated all of the Possums were able to use iPads to take photos and use camera angles and framing to build character emotion.

Interestingly, children began to adjust their images, changing colours, contrasts and applying other settings, to personalise their image for the storyboards (Fig. 14). As we did not have constraints for how the images were produced, children could make their own choices and have agency in their learning, to encourage positive behaviours for learning.

Positive behaviours were also elicited by injecting fun throughout the learning. We used role plays, drama, singing and banter between the teaching team to ensure the lessons were highly engaging for the children. Additionally, our behaviour management used positive language to motivate desired behaviours. For example, 'You are doing an excellent job with caring for the iPad' and 'You seem to understand all the different types of camera angles'. If we noticed students had their smileys put away, we suggested 'You look like you need a break, would you like to have some quiet time?'.

A caring approach to each other was highly encouraged. For instance, if we heard a Possum say a negative comment, we would reframe this so that they learnt to support their peers. We also always showed warmth towards every child so that they felt safe and secure. By creating lessons based on positive pedagogy, we observed children who were highly engaged in learning (O'Brien & Blue, 2018).

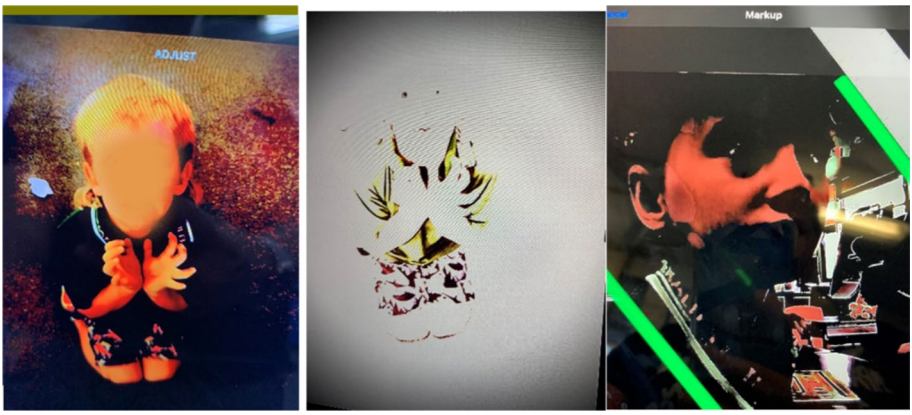

Fig. 14 Children personalising their own images

5.2 Teacher interview

The classroom teacher was engaged in the planning and instruction of the lessons and 'liked that I was involved right from the beginning'. When asked about what she enjoyed most about the classroom lessons, she shared that she enjoyed the introductions to the lessons which included the small drama interaction between the researchers. She responded, 'I liked how you acted it all out – the role play – that gives the children more opportunities. It was also great you didn't have any props and you can just roleplay'. The teacher said that she noticed a lot of learning throughout the activities:

> You can see the light bulbs. There are so many different types of learning in those lessons. There's the movement, you can create, you can write, you can draw. The children were talking and I also noticed a lot of sharing that was going on. Sometimes when one child takes another's idea they get cranky, but this was so different, they were learning from each other.

When asked about our teaching pedagogy and incorporating literacy, arts and wellbeing, the teacher responded,

> I want to add more arts like you did and also singing…. I have also realised I need to inject more fun into my teaching. I am also learning alongside the children. These activities are something that I would want to do. So, if I feel like I want to do it then all the children should be engaged as well.

The classroom teacher reported that all students met the targeted literacy Australian Curriculum content without support. When asked if there were any ideas she would take forward into future lessons. She replied,

> so many things; to have fun, but I think the big thing was to not give so many rules. I can't believe what the children have produced. I was really worried that they wouldn't know what to do without giving explicit instructions, but what I will take forward is being a bit more open to giving children the choice and agency to make decisions.

In conclusion, the classroom teacher reported that so many children were engaged in the activities, and the outputs were much higher than expected and invited us back anytime to work with them again.

5.3 Researcher reflections

Using the 4Rs model (Bain et al., 1999), we wrote reflections after each lesson to consider ways that we could improve literacy, the arts and wellbeing for the Possums and our own future practice.

Literacy: Our reflections both identified the picture book *Not Now, Bernard* as a useful tool for discussing how camera angles and framing developed the character. The sequencing of the lessons was also identified as positives for developing the language and literacy content descriptions. Georgina reflected, 'the lessons scaffolded understanding of the children by beginning with angles and framing, moving to emotion and then having students create

characters'. Melissa additionally identified, 'the children seem to have really understood the importance of the camera and how it influences the emotions. I wasn't quite sure year one children would be able to complete the storyboards with multimedia but they were so engaged'. As a result, children met the lesson objectives and language and literacy complimented the HASS learning area.

The Arts: In the first lesson, a highlight for us both was the role play. Melissa wrote.

> when we went into the classroom, I pretended to trip over, and Georgina then roused on me. The children at first were worried for me, however soon worked out it was a joke and were laughing really hard. I believe this endeared us to them and they enjoyed the lesson from the beginning.

Similarly, Georgina commented that the skit was a great segue into discussing character emotion.

> We asked the children if they had ever been in trouble. What did it feel like? Who was angry at you? What did they look like? The children then did faces and body language for different emotions - scared, surprised, happy, angry, annoyed, sad, happy. This artistic approach to learning led into the literacy outcomes too.

This introduction to emotions in the form of drama, helped the children to develop language to portray characters' emotions in later lessons.

Wellbeing: as wellbeing was a primary focus of our planning when developing the lessons, both researchers identified positive education that enabled wellbeing. Georgina wrote, *there were a few children with special needs in this class. For our lessons all seemed really engaged and they did each activity well*. She suggested this was because *the lessons were designed to be inclusive by giving all children voice and agency to choose what they would like to use, to meet the lesson goals. We acknowledged that some children might need learning breaks from time to time and as such, we gave the children the chance to make this decision. Even though they were young, it taught them self-regulation and awareness and gave them the responsibility to make choices*. Melissa also identified the participation of the students and suggested that the *technology really engaged the children and they really used the different angles and positioning. I think they absolutely loved that we shared their work on the big screens each day, particularly when they were all characters in the book*. It made them feel as though they controlled the learning in some ways.

Strategies that we had designed to measure wellbeing were positive.

> The smileys worked well in the classroom to check in with the children and see how they were feeling. Initially Georgina gave the children some smiley faces – 1, 2, 3 and asked the children to colour in and then show how many they thought they would show at the moment. Children had varying numbers and the teacher reported they had had a hard day, but by the end of the lesson, there was not a single smiley that was not coloured (Melissa).

We also provided the teacher a simple wellbeing measure that the children completed (Thompson & Aked, 2009). The results from these indicated the children felt happy after participating in the activities as they enjoyed the content and the way they were conducted. Our three days in the school were additionally acknowledged with a social media post from the school administration, sharing the Possums' work with the school community.

6 Discussion and conclusion

As demonstrated through the observations, artefacts, teacher interviews and researchers' reflections, it was evident that the teachers and children benefitted from, and enjoyed, this approach to literacy learning. Importantly, the teacher noted improved literacy outcomes and the children's high engagement through arts-based learning activities. Further, the positive education mindset ensured all children could access learning and achieve improved results. Using the Social Ecological Model of Health (SEMoH) (Rodriguez et al., 2024), we now describe how learning through the LAB lessons aligned with each of the model's levels. We start by addressing the outer layer of cultural and move to the individual level.

As we were conscious of practicing inclusion and positive education to ensure wellbeing, we made all children visible (Houmøller, 2018). The LAB approach encourages tolerance and acceptance through equitable educational practices. Providing opportunities for the children to express their own voice and also make informed choices created a safe culture within the classroom. We also had high expectations of each student within their capability levels.

In terms of policy, many have noted the rhetoric in curriculum around the benefits and importance of the arts despite it constantly being cut due to other deemed more important priorities. The LAB approach showed how the arts can be injected into learning to support literacy as well as wellbeing outcomes. A reported push for schools to teach early years literacy explicitly may not always benefit all children. Play- and arts-based learning has been proven time again that more inclusive practices are possible (Barton, 2019; Sofija et al., 2023).

Similar to the cultural level, we found that privileging under-represented voices ensured all children participated positively in the learning. For example, we observed one child often sitting separately from the class with a box of Legos. By the end of lesson 1, this child was at the front of the class teaching the others about Lego. The LAB approach increased social cohesion through small group work, and the teacher shared their learnings to others in the school community. We acknowledge the need for sustainable practices when it comes to implementing a LAB approach, so it would be important for teachers to receive comprehensive training over longer periods.

On the interpersonal level, as stated previously, an increase in social connection was possible between the children, the children and the teachers as well as the teacher and the researchers. We encourage all participants to feel comfortable to talk about feelings through the lesson activities. We also set up a learning space that was caring and safe, which was critical for building strong interpersonal relationships.

Finally, at the individual level, we observed an increase in the children's engagement and motivation to learn (also confirmed by the teacher), self-regulation, agency and wellbeing (as shown in the measure). There was also an increase in the teacher's self-efficacy to try more creative and arts-based approaches to learning in literacy.

As such, we present the Social Ecological Model of Health (SEMoH) (Rodriguez et al., 2024) adapted for early childhood education. Using a LAB approach enabled us to identify important concepts within each level. As can be seen in Fig. 15, at the cultural level, all cultures and differences must be acknowledged and accepted throughout learning. This requires both the teacher's and children's understanding and use of positive language within a safe learning environment. At the policy level, more is needed to be done towards the acknowledgement and necessity to inject arts-based learning in classrooms. Evidence has shown its positive impact on literacy and wellbeing outcomes.

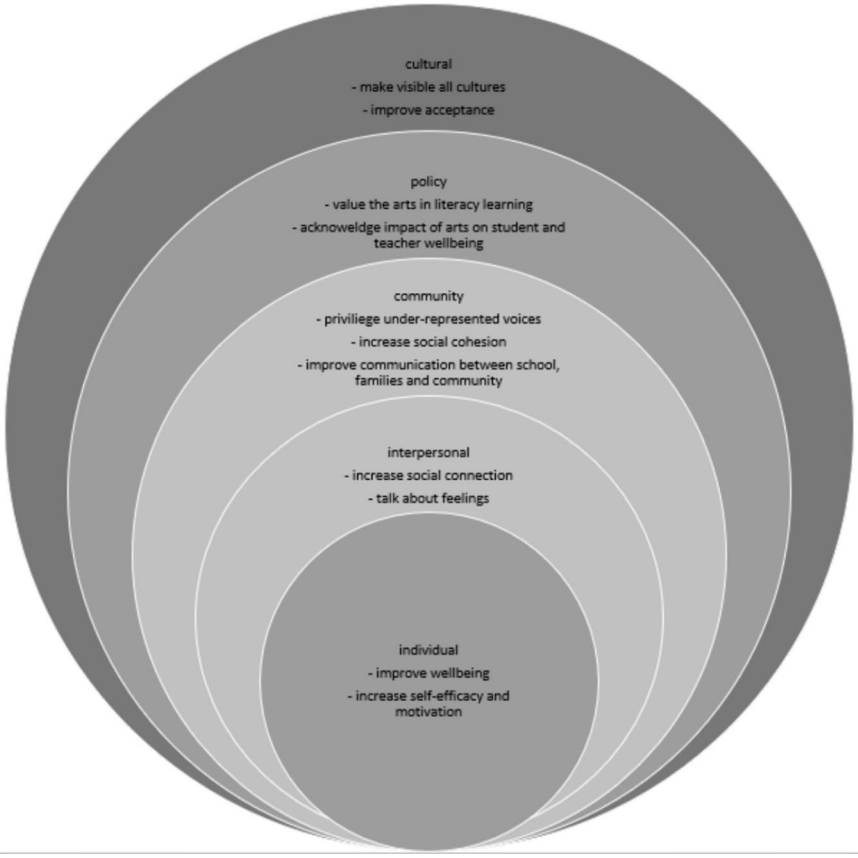

Fig. 15 Educational socio-ecological health model

At the community level, all voices need to be heard, especially those under-represented. Further, social cohesion and connection are created by establishing a warm and safe space for self-expression and difference. Teaching students to talk about feelings through characterisation and other means is critical for personal and social development. This leads to the final level of an individual, where self-regulation and motivation towards learning consequently improve well-being and academic attainment (see Fig. 15).

When considering implementing this model, we recommend teachers always align learning to the Australian Curriculum content descriptions. Thinking about innovative and creative ways to teach these such as through multimedia and arts-based activities are advised. We also recommend teachers consider 'taking more risks' outside of the pressures of reaching set literacy targets resulting from wider systemic policies. The LAB approach has proven that literacy outcomes are met in a more holistic way that emphasises enjoyment.

Further, embracing university researchers' co-design of learning plans enables a greater community presence and impact at the individual level regarding wellbeing and support. Indeed, we were invited to present a professional development session to all teachers on student and teacher wellbeing. Finally, we acknowledge the limitation in trialling the LAB

project in one rural school setting. We hope in the future to implement it in schools that are under-resourced so that both teachers and students can benefit from such an approach.

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Data availability Data are stored in an appropriate data repository and are not publicly available unless the researchers publish it in accordance with the ethics approval.

Declarations

Ethics approval and informed consent Ethics approvals were sought and granted through the researchers' university—ETH2021-0099. All consenting participants signed the necessary consent forms.

Competing interests The authors declare no competing interests.

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References

Abawi, L. A., Fanshawe, M., Gilbey, K., Andersen, C., & Rogers, C. (2019). Celebrating diversity: Focusing on inclusion. *Opening Eyes onto Inclusion and Diversity*.

ACARA (n.d.). *Australian Curriculum: English, History, the Arts*. Australian Curriculum, Assessment and Reporting Authority.

Almeida, I. L. D. L., Rego, J. F., Teixeira, A. C. G., & Moreira, M. R. (2021). Social isolation and its impact on child and adolescent development: A systematic review. *Revista Paulista de Pediatria*, *40*.

Anderson, S., & Bigby, C. (2021). Community participation as identity and belonging: A case study of Arts Project Australia. "I am an artist". *Research and Practice in Intellectual and Developmental Disabilities*, *8*(1), 1–14.

Bain, J., Ballantyne, R., Packer, J., & Mills, C. (1999). Using journal writing to enhance student teachers' reflectivity during field experience placements. *Teachers and Teaching, 5*(1), 51–73.

Barton, G. (Ed.). (2014). *Literacy in the arts: Retheorising learning and teaching*. Springer Science & Business Media.

Barton, G. (2019). *Developing literacy and the arts in schools*. Routledge.

Barton, G. (2023). *Aesthetic literacies in school and work*. Springer.

Barton, G., & Burke, K. (2024). *Aesthetic positive pedagogy: Aspiring to empowerment in the classroom and beyond*. Springer Nature.

Barton, G., & Le, A. H. (2023). The importance of aesthetic for curriculum and job readiness: An exploration of student, teacher, and employer perceptions through Appraisal Theory. *Curriculum Perspectives*, *43*(2), 157–167.

Barton, G., Burke, K., & Freebody, P. (2022). Disciplinary Literacies in the arts: Semiotic explorations of teachers' use of multimodal and aesthetic metalanguage. *International Journal of Education & the Arts*, *23*(8).

Blackstock, J., Chae, K. B., McDonald, A., & Mauk, G. W. (2018). Achieving access to mental health care for school-aged children in rural communities. *The Rural Educator, 39*(1), 12–25.

Cancellieri, G., Turrini, A., Perez, M. J. S., Salido-Andres, N., Kullberg, J., & Cognat, A. S. (2018). Social innovation in arts and culture: Place-regeneration initiatives driven by arts & culture to achieve social

cohesion. In H. K. Anheier, G. Krlev, & G. Mildenberger (Eds.), *Social Innovation: Comparative Perspectives* (pp. 79–103). Routledge.
Chapman, S. N. (2015). Arts immersion: Using the arts as a language across the primary school curriculum. *Australian Journal of Teacher Education (Online), 40*(9), 86–101.
Chapman, S. N., Barton, G., & Garvis, S. (2021). To STEAM or not to STEAM: Investigating arts immersion to support children's learning. In *Embedding STEAM in early childhood education and care* (pp. 155–172). Springer International Publishing.
Coholic, D., Schinke, R., Oghene, O., Dano, K., Jago, M., McAlister, H., & Grynspan, P. (2020). Arts-based interventions for youth with mental health challenges. *Journal of Social Work, 20*(3), 269–286.
Cope, B., & Kalantzis, M. (2023). Towards education justice: The multiliteracies project revisited. In *Multiliteracies in International Educational Contexts* (pp. 1–33). Routledge.
Cremin, T., & Chappell, K. (2021). Creative pedagogies: A systematic review. *Research Papers in Education, 36*(3), 299–331.
Cremin, T., Flewitt, R., Mardell, B., & Swann, J. (2017). *Storytelling in early childhood* (pp. 67–85). Routledge.
Darmody, M., Smyth, E., & Russell, H. (2021). Impacts of the COVID-19 control measures on widening educational inequalities. *Young, 29*(4), 366–380.
De Jong, J. H. (2023). Reading: A precondition for writing. In *The Routledge International Handbook of Research on Writing* (pp. 556–562). Routledge.
Dunn, J., & Jones, A. (2022). Dramatic approaches in the English classroom: Embodied, agentic and aesthetic learning. In M. McAvoy & P. O'Connor (Eds.), *The Routledge Companion to Drama in Education* (pp. 310–323). Routledge.
Ewing, R. (2006). Reading to allow spaces to play. In R. Ewing (Ed.), *Beyond the reading wars: Towards a balanced approach to helping children learn to read* (pp 171–182). Primary English Teaching Association.
Ewing, R. (2019). Embedding arts-rich English and literacy pedagogies in the classroom. *Literacy Learning: The Middle Years, 27*(1), 7–17.
Fong Yan, A., Cobley, S., Chan, C., Pappas, E., Nicholson, L. L., Ward, R. E., ... & Hiller, C. E. (2018). The effectiveness of dance interventions on physical health outcomes compared to other forms of physical activity: A systematic review and meta-analysis. *Sports Medicine*, *48*, 933–951.
Ganzermiller, J. D. (2018). Creative persuasion: Enhancing wellbeing and self-efficacy through theatrical performance. Unpublished doctoral dissertation, University of Maryland, College Park.
Hannigan, S., Grima-Farrell, C., & Wardman, N. (2019). Drawing on creative arts therapy approaches to enhance inclusive school cultures and student wellbeing. *Issues in Educational Research, 29*(3), 756–773.
Harris, D formerly A. (2017). *Creative ecologies: Fostering creativity in secondary schools final report. Resource document.* Creative Research Hub
Hill, S. (2011). *Early literacy: Connections and disconnections between oral language and literacy* (pp. 45–55). Springer
Hillier, M. (2020). Bridging the digital divide with off-line e-learning. In *Expanding Horizons in Open and Distance Learning* (pp. 110–121). Routledge
Houmøller, K. (2018). Making the invisible visible? Everyday lived experiences of 'seeing'and categorizing children's well-being within a Danish kindergarten. *Childhood, 25*(4), 488–500.
Hunter, L., & Frawley, E. (2023). Engaging students using an arts-based pedagogy: Teaching and learning sociological theory through film, art, and music. *Teaching Sociology, 51*(1), 13–25.
Jindal-Snape, D., Davies, D., Scott, R., Robb, A., Murray, C., & Harkins, C. (2018). Impact of arts participation on children's achievement: A systematic literature review. *Thinking Skills and Creativity, 29*, 59–70.
Kennedy, K. J. (2022). A curriculum field in need of an Australian foundation: Beyond theory to situated practice. *Curriculum Perspectives, 42*(1), 65–70.
Kobra, E. (2022). *The essence and significance of art*. Retrieved from: https://www.eden-gallery.com/news/why-is-art-important#:~:text=Art%20is%20not%20just%20an,on%20political%20or%20social%20events
Kou, X., Konrath, S., & Goldstein, T. R. (2020). The relationship among different types of arts engagement, empathy, and prosocial behavior. *Psychology of Aesthetics, Creativity, and the Arts*, *14*(4), 481. Lee, D. (2013). How the arts generate social capital to foster intergroup social cohesion. *The Journal of Arts Management, Law, and Society*, *43*(1), 4–17
Kress, G., & Rowsell, J. (2018). Literacy as a social practice: New realities and new models. In D. Bloome, M-C. Castanheira, C. Leung, & J. Rowsell (Eds.), *Re-theorizing Literacy Practices* (pp. 30–49). Routledge.

Lord, J. (2023). Exploring teacher professional identity and agency in local, national and global policy contexts. *Teacher Education as an Ongoing Professional Trajectory: Implications for Policy and Practice* (pp. 119–141). Springer International Publishing.

Macqueen, S., Knoch, U., Wigglesworth, G., Nordlinger, R., Singer, R., McNamara, T., & Brickle, R. (2019). The impact of national standardized literacy and numeracy testing on children and teaching staff in remote Australian Indigenous communities. *Language Testing, 36*(2), 265–287.

Malchiodi, C. A. (2020). *Trauma and expressive arts therapy: Brain, body, and imagination in the healing process*. Guilford Publications.

Martin, J. R., & White, P. R. (2003). *The language of evaluation* (Vol. 2). Palgrave Macmillan.

Martin, L., Oepen, R., Bauer, K., Nottensteiner, A., Mergheim, K., Gruber, H., & Koch, S. C. (2018). Creative arts interventions for stress management and prevention—A systematic review. *Behavioral Sciences, 8*(2), 28.

Mastandrea, S., Fagioli, S., & Biasi, V. (2019). Art and psychological well-being: Linking the brain to the aesthetic emotion. *Frontiers in Psychology, 10*, 739.

Mathis, W. J. (2003). Financial challenges, adequacy, and equity in rural schools and communities. *Journal of Education Finance, 29*(2), 119–136.

McCormack, L., Thomas, V., Lewis, M. A., & Rudd, R. (2017). Improving low health literacy and patient engagement: A social ecological approach. *Patient Education and Counseling, 100*(1), 8–13.

McDonald, J., Aprill, A., & Mills, D. (2017). Wellbeing in classroom arts collaborations. *The Palgrave Handbook of Global Arts Education*, 383–398.

Morales, D. A., Barksdale, C. L., & Beckel-Mitchener, A. C. (2020). A call to action to address rural mental health disparities. *Journal of Clinical and Translational Science, 4*(5), 463–467.

Norrish, J. M., Williams, P., O'Connor, M., & Robinson, J. (2013). An applied framework for positive education. *International Journal of Wellbeing, 3*(2), 147–161.

Oates, C., & Bignell, C. (2022). School and university in partnership: A shared enquiry into teachers' collaborative practices. *Professional Development in Education, 48*(1), 105–119.

O'Brien, M., & Blue, L. (2018). Towards a positive pedagogy: Designing pedagogical practices that facilitate positivity within the classroom. *Educational Action Research, 26*(3), 365–384.

Pascoe, R. (2015). *Teaching the arts: For the AiR Summer School 2016*. StagePage.

Pavlou, V. (2006). Pre-adolescents' perceptions of competence, motivation and engagement in art activities. *International Journal of Art & Design Education, 25*(2), 194–204.

Reardon, S. F. (2013). The widening income achievement gap. *Educational Leadership, 70*(8), 10–16.

Rodriguez, A. K., Akram, S., Colverson, A. J., Hack, G., Golden, T. L., & Sonke, J. (2024). Arts engagement as a health behavior: An opportunity to address mental health inequities. *Community Health Equity Research & Policy, 44*(3), 315–322.

Ryan, M. (2011). Improving reflective writing in higher education: A social semiotic perspective. *Teaching in Higher Education, 16*(1), 99–111.

Ryan, M., & Barton, G. (2014). The spatialized practices of teaching writing in Australian elementary schools: Diverse students shaping discoursal selves, *Research in the Teaching of English*, 48(3), 303–329.

Saunders, J. N. (2021). The power of the arts in learning and the curriculum: A review of research literature. *Curriculum Perspectives, 41*(1), 93–100.

Scholes, L. (2024). Year 3 boys' and girls' enjoyment for reading across economic demographics in Australia. Implications for boys and students from lower SES communities. *International Journal of Inclusive Education*, *28*(5), 509–524.

Seligman, M. E., Ernst, R. M., Gillham, J., Reivich, K., & Linkins, M. (2009). Positive education: Positive psychology and classroom interventions. *Oxford Review of Education, 35*(3), 293–311.

Shin, J. K. (2023). Developing primary English learners' visual literacy for a multimodal world. *Innovative Practices in Early English Language Education* (pp. 101–127). Springer International Publishing.

Sofija, E., Bernard, N. R., Bowler, S., Wiseman, N., & Harris, N. (2023). Creative and play-based interventions for culturally and linguistically diverse children: A systematic review. *Journal of Social Inclusion (JoSI)*, *14*(1).

Sookpiboon, A., & Bovornkitti, l. (2019). *A study on art activities for self-confidence enhancement on secondary students* (Unpublished doctoral dissertation, Srinakharinwirot University).

Stocker, K. L., Fox, R. A., Swain, N. R., & Leif, E. S. (2023). Between the lines: Integrating the science of reading and the science of behavior to improve reading outcomes for Australian children. *Behavior and Social Issues*, 1–28.

Thompson, S., & Aked, J. (2009). *A guide to measuring children's wellbeing*. New Economics Foundation.

UNESCO (2019). *UNESCO strategy for youth and adult literacy* (2020–2025). Retrieved from: https://unesdoc.unesco.org/ark:/48223/pf0000371411

UNESCO (2023). *What you need to know about literacy*. Retrieved from: https://www.unesco.org/en/literacy/need-know

Vaughan, T., & Caldwell, B. (2014). *Improving literacy through the arts*. Literacy in the arts: Retheorising learning and teaching, 203-214.

Victorian Government (n.d.). *Vulnerable children.* Department of Health. Retrieved from: https://www.health.vic.gov.au/populations/vulnerable-children

Willem, S. N. (2020). Arts education for enhancing holistic child development in resource-challenged pre-primary schools in the Kunene region (Doctoral dissertation, University of Namibia).

Zarobe, L., & Bungay, H. (2017). The role of arts activities in developing resilience and mental wellbeing in children and young people a rapid review of the literature. *Perspectives in Public Health, 137*(6), 337–347.