



FINAL REPORT

Physical health and wellbeing: Innovative approaches in an inner-city community

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Contents

List of figures.....	4
List of images	4
Acknowledgements.....	5
Executive Summary	6
Design, methods and analysis.....	6
Findings.....	7
Recommendations.....	9
Overview	10
Methodology.....	11
Research design	11
Research question	12
Shape of the project	12
Roles within the research	15
Project Manager	15
Project Critical Friend	15
Core research team	15
Ethics	16
Context: Research site	16
Participants.....	17
Methods of data collection.....	17
Methods of data analysis.....	18
Findings and discussion.....	18
Theme 1: Knowledge and skills.....	20
Theme 2: Use of spaces: Centre and beyond.....	23
Theme 3: Resources and equipment	23
Theme 4: Pedagogy, programming and practice	26
Theme 5: Children’s voices	27
Theme 6: People and relationships.....	29
Challenges, barriers and opportunities.....	31
Recommendations	32
Dissemination	34
An ongoing program of research	34
Concluding comments.....	35

References 37

List of figures

Figure 1. Kemmis and McTaggart (2001) Action Research spiral 12
Figure 2. Shape of project 13
Figure 3. Themes and threads of inquiry..... 20

List of images

Image 1. Examples of project mind maps.....19
Image 2. Trapeze swing.....24

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Executive Summary

There is increasing awareness and concern about the state of children's health and wellbeing (Jancey, Monteiro, Dhaliwal, Howat, Burns, Hills, & Anderson, 2014; Monteiro, Jancey, Dhaliwal, Howat, Burns, Hills, & Anderson, 2014; Stanton & Hills, 2004). Diet and physical activity are widely acknowledged as key factors related to a young person's health, including physical capabilities, and may also impact health outcomes across the lifespan. In short, investing early in a person's health and wellbeing has a direct impact on their quality and quantity of life (Australian Research Alliance for Children and Youth [ARACY], 2013; Australian Institute of Health and Welfare [AIHW], 2012, 2017; Hills, King, & Byrne, 2007). A proven, yet under-resourced strategy is to tackle the problem head-on within early education using a targeted and multi-pronged approach (Hills, Street & Harris, 2014). Such a strategy requires close collaboration between teachers, families and children in early education settings (Department of Education, Employment and Workplace Relations [DEEWR], 2009; Hills, Street & Harris, 2014; Street, Wells & Hills, 2015).

The Australian Early Development Census (AEDC) is a national population-based evaluation of child development in the first year of full-time schooling (Australian Government, n.d.). AEDC data can help professionals working with children and families to think critically on how to effectively support children's development. Early childhood educators are in a prime position to be proactive in putting the AEDC data into action by supporting and enhancing children's learning and development.

The Physical health and wellbeing: Innovative approaches in an inner-city community research project was designed to:

- build **educator capability** in relation to using AEDC data sets to inform professional decisions;
- enact **pedagogical practices** that afford children opportunities to engage in challenging physical play; and
- **measure and communicate about the effects of intentional, sustained and contextual practices** to parents and families, the local community and other early years services.

This collaborative project between Gowrie Training & Consultancy and the Faculty of Education, QUT, and School of Health Science, University of Tasmania was underpinned by existing professional relationships with a history of researching, thinking and working together.

Design, methods and analysis

The project was qualitative research with a core focus on action research. Over a period of 5 months, early childhood educators at the Lady Gowrie Tasmania Integrated Centre, South Hobart, were supported by a Core research team (from QUT, Gowrie Training and Consultancy, Centre leaders and UTas). Approval to conduct the research was obtained from the QUT Human Research Ethics

Committee (QUT Ethics Approval Number 1700000695), with assurance from Lady Gowrie Tasmania that it met their requirements for approval.

Action research was employed as the research design to investigate the key research question:

How can early childhood educators enable children to flourish in the area of physical health and wellbeing?

Data included field notes from meetings, email communications, collaboratively generated documentation, facilitated group discussions and minutes of meetings. Data was analysed using inductive and deductive thematic analysis, whereby codes or categories were created, and themes identified.

The project included three two-hour face-to-face workshops with educators and invited colleagues (including Lady Gowrie Tasmania and AEDC personnel). Monthly face-to-face or online core research team meetings were held, with topics of leadership, critical reflection, coaching and mentoring, theories and pedagogy as key anchors to guide discussions. Throughout the project, complementary materials were shared with educators, with the two modules “critical reflection” and “working with theories” developed that will remain as resources to access and draw on for future professional development and learning.

Findings

Throughout the project there was a focus on creating a research culture, where educator-participants were empowered to engage with ideas and through questioning and provocations be challenged to re-consider pedagogy and practices, particularly in relation to the AEDC domain of children’s physical health and wellbeing.

Through analysis of the data, six themes were identified, with additional ‘threads’ or concepts that were both implicit and explicit in all aspects of the project.

Theme 1: Knowledge and skills.

Throughout the project, educators’ immersion and engagement with key knowledge and skills enabled deeper understandings and thinking about the ways that educators are able to challenge, extend and ultimately put in place a program so that children are able to reach their physical development potential. Concepts of **physical literacy, motor skills and effortful play** were explored. The introduction of **Active Play Sessions** was key in shifting educator’s thinking about physical experiences and opportunities within the Centre.

Theme 2: Use of spaces: Centre and beyond.

During the project there was consideration of the ways in which the spaces in the Centre are currently used, and from here thinking about new and different ways to utilise space. A key highlight for the re-thinking the use of spaces in the Centre was the introduction of Wheels Day, and beyond the Centre, a walk to the local Hobart Rivulet. Careful consideration was afforded to **transitions** – the ways the

children move around the Centre - between levels, spaces (indoor and outdoor) and rooms (e.g., dining room) – use of stairs, lift, hall ways.

Theme 3: Resources and equipment.

Consideration of the ways that moveable and fixed equipment are utilised in the outdoor physical environment was a focus within the project. A notable example was the use of equipment introduced early on in the project - a **trapeze swing** in the main, shared outdoor playground. Educators explored ideas that stretched their thinking to use resources and equipment in innovative ways, and that engaged with notions of 'risk'. Pushing boundaries to enable children to have access to resources and equipment that would see children flourish within a safe physical activity environment was a key consideration throughout the project.

Theme 4: Pedagogy, programming and practice.

As educators held together knowledge and skills and re-considered the use of spaces and access to resources, they were able to consider holistically ways to provide for children's physical health and wellbeing. A focus on **integrated learning experiences** that held together domains of child development and curriculum areas, without compartmentalising learning was important. **Music** was drawn on to develop movement and music games that would provide opportunities for children's physical development. **Pedagogical documentation**, including Story Park (online documentation platform) was a way to make visible children's experiences and deepening educators' understandings about physical health and wellbeing. A recurring concept that was identified within Theme 4 "**intentionality**", whereby educators developed increased purpose and thought in the learning experiences that were planned and provided.

Theme 5: Children's voices.

There was consistent discussion in the data about the 'voices of children', with a strong commitment from educators to include **children's thoughts and ideas**. At the final, third workshop in November educators noted that voices of children were key in the project, and indeed as a condition for enabling children to flourish in the area of physical health and wellbeing.

Theme 6: People and relationships.

Whilst each theme within the data is important, it was perhaps the final theme, *People and relationships*, that came up again and again repeatedly. This theme encapsulates a number of interconnected areas that came up through the data: **teamwork, leadership, coaching and mentoring, communication, culture and structural conditions to support people and pedagogy.**

Challenges, barriers and opportunities.

Whilst the level of educator-participant engagement increased during the project, there were some **challenges and barriers** that are noteworthy, including: staffing considerations; indoor/outdoor space/weather. Each of these were carefully considered during the project.

The project has brought immense **opportunities** for the educators, children and for the Centre. The project has no doubt left traces that will continue to permeate thinking, programming and pedagogy for individual educator – participants and for the Centre:

I would be hopeful that the project is an ongoing opportunity for educators to reflect on their practices to continually improve best learning outcomes for all children (email correspondence, educator-participant).

Recommendations

The analysis of data and associated considered reflections on the action research project illuminate a number of key recommendations. Whilst these recommendations come from the research findings and discussion, some are more pertinent to the specifics of the project, and some are broader in their orientation. A summary of the recommendations follows:

- To provide opportunities for educators to **further engage and build capacity with the AEDC**;
- To consider the **alignment of the AEDC with the Centre’s Quality Improvement Plan (QIP)**;
- To provide educators with **time and space to dialogue** and enable deeper understandings about programming/practice/pedagogy;
- To be **cautious in engaging with any tool** - consider the AEDC as one tool that underpins though not drives the programming and planning process;
- To **develop an ongoing program of professional growth and learning** for educators in the areas of: images of children and images of educators; pedagogical documentation; and building on modules developed from this project –working with theories; critical reflection;
- To continue to explore and engage with **“teacher as researcher”** - to investigate new or related research questions;
- To consider **transdisciplinary approaches to research**, projects and work to open possibilities to think in richer ways;
- **An ongoing program of accessing research evidence**, and drawing on this in **professional conversations** is recommended;
- **To optimise play spaces and develop understandings about the design principles in the unique building**, including a **meeting or forum with the design team and the educators**;
- To pursue **collaboration opportunities**, initiated through the project, with **Hobart City Council**;
- Developing this **research as a foundation for future projects** will be important to grow educator-capacity.

A phrase that came up during educator discussions was “from little things big things grow” and it seems that through the ***Physical health and wellbeing: Innovative approaches in an inner-city community*** research project, sparks were ignited that will see the reach and impact of this project live into the future.

Overview

There is increasing awareness and concern about the state of children's health and wellbeing (Jancey, Monteiro, Dhaliwal, Howat, Burns, Hills, & Anderson, 2014; Monteiro, Jancey, Dhaliwal, Howat, Burns, Hills, & Anderson, 2014; Stanton & Hills, 2004). Diet and physical activity are widely acknowledged as key factors related to a young person's health, including physical capabilities, and may also impact health outcomes across the lifespan. In short, investing early in a person's health and wellbeing has a direct impact on their quality and quantity of life (Australian Institute of Health and Welfare [AIHW], 2012, 2017; Australian Research Alliance for Children and Youth [ARACY], 2013; Hills, King, & Byrne, 2007). A proven, yet under-resourced strategy is to tackle the problem head-on within early education using a targeted and multi-pronged approach (Hills, Street & Harris, 2014). Such a strategy requires close collaboration between teachers, families and children in early education settings (Department of Education, Employment and Workplace Relations [DEEWR], 2009; Hills, Street & Harris, 2014; Street, Wells & Hills, 2015).

Overweight and obesity are major health concerns across Australia and particular concerns have been identified within the Tasmanian context (AIHW, 2017; Department of Health and Human Services, 2016). Recent data suggest that the health status of the Tasmanian population requires an urgent overhaul, commencing with very young children. Overweight and obesity are largely preventable through sensible eating and activity behaviours. We contend that the enhancement of physical literacy in the early childhood years provides a primary opportunity to improve the physical health and wellbeing of the next generation. To maximise health outcomes for all, children need skilled and knowledgeable educators and the most productive and cost-effective approach to achieve this is to build the capacity of ECEs. Given the increasingly complex health and wellbeing needs of children and associated measures and initiatives (e.g., NDIS and AEDC), research is urgently needed to provide critical information on how best to support and build ECE capacity to enable children to flourish in the area of physical health and development. Children's health and wellbeing must be the highest priority for our nation with dire consequences if insufficient support is provided in the area and commencing in early childhood.

The AEDC is a national population-based evaluation of child development in the first year of full-time schooling (Australian Government, n.d.) can help professionals working with children and families to think critically on how to effectively support children's development. Early childhood educators are in a prime position to be proactive in putting the AEDC data into action by supporting and enhancing children's learning and development.

Hobart, the capital of Tasmania, has a population of 224 462 (Australian Bureau of Statistics [ABS], 2017). Projections are that this city and the State will continue to grow at a rate of 9.6% per annum. A significant number of Tasmanian children attend some form of childcare: 54.2% aged less than 4 years and 50.8% aged 4-5 years. The main reason cited for this is work-related (66%) (Commissioner for

Children and Young People Tasmania, 2017, p. 28). Early childhood educators therefore have a key role to play in putting in place the conditions that will enable children to have healthy outcomes in their early years, contributing to behaviours, choices and actions that will influence lifelong health and wellbeing.

The ***Physical health and wellbeing: Innovative approaches in an inner-city community*** research project (the project) plugs into the AEDC domain of physical health and wellbeing and the need to put in place the conditions that young children are meeting healthy outcomes for now, and into the future. Additionally, the project's strategies align with the Australian government's health and wellbeing initiatives for young children (ARACY, 2013; AIHW, 2012; Department of Health, 2013) and key policy and curriculum documents that guide practices in prior to school contexts (Australian Children's Education & Care Quality Authority [ACECQA], 2013; DEEWR, 2009; Department of Health, 2013).

The project was a collaboration between Gowrie Training and Consultancy and the Faculty of Education, QUT, and School of Health Sciences, University of Tasmania. The Project focused on one site in inner-city Hobart, the Lady Gowrie Tasmania Integrated Centre, South Hobart, Tasmania.

The ***Physical health and wellbeing: Innovative approaches in an inner-city community*** research project focused on supporting and enhancing children's physical health and wellbeing with attention to:

- build educator capability in relation to using AEDC data sets to inform professional decisions;
- enact pedagogical practices that afford children opportunities to engage in challenging physical play; and
- measure and communicate about the effects of intentional, sustained and contextual practices to parents and families, the local community and other early years services.

Methodology

Research design

To bring understandings to how early childhood educators enable children to flourish in the area of physical health and wellbeing, this qualitative research applied participatory action research (Kemmis & McTaggart, 2001; MacNaughton & Hughes, 2009). Consistent with action research methodologies, cyclic processes – plan, act/observe, reflect - were followed throughout the life of the project. The research methodology is visually represented below in **Figure 1**.

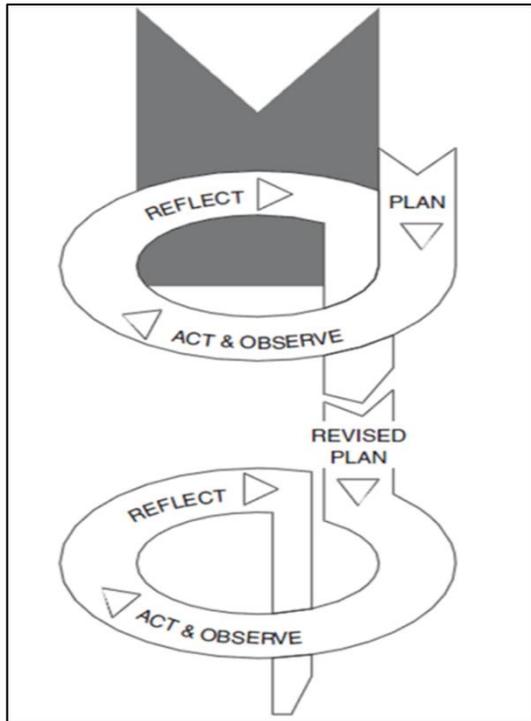


Figure 1. Kemmis and McTaggart (2001) Action Research spiral

The research design draws on action research (Kemmis & McTaggart, 2001) as a cyclic, evolving process, where each stage overlaps with other stages in the cycle. In action research the process enables opportunities for participants to reflect and analyse as the project unfolds, and at key points critically reflect, building on prior events, and creating the conditions for new thinking and actions.

Action research was not only an appropriate research methodology to explore the research focus and questions, though by nature is similar to the cyclic programming and planning processes drawn on early childhood education and care settings – with inbuilt scope to plan, observe and reflect (Arthur, Beecher, Death, Dockett, & Farmer, 2017; McArdle, Gibson & Zollo, 2015).

Research question

The overarching research question for this project was:

How can early childhood educators enable children to flourish in the area of physical health and wellbeing?

This question informed the creation of a sub-set of research questions which were explored and supported children’s physical development in relation to current informing AEDC data and the unique characteristics of the long day care service (see below, **Findings and discussion**).

Shape of the project

The ***Physical health and wellbeing: Innovative approaches in an inner-city community*** research project spanned 20 weeks (7 August – 23 December 2017),

with a carefully conceptualised program to enable scope for all participants to have input and be immersed in thinking about children’s physical health and wellbeing. Within this broad domain there was a specific focus on physical development, and movement. This focus was drawn from literature, and the expertise and input from the Project Critical Friend, Professor Andrew Hills.

Physical literacy is arguably the most important life skill for all young people and critical to foster throughout the formative years commencing in early childhood. Physical literacy may be defined as the repertoire of movement skills necessary for a meaningful engagement in physical activity and consistent with the establishment of fundamental movement skills (FMS). FMS are necessary foundation elements of movement and consistent with the development of self-efficacy, self-confidence and perceived competence.

Within an action research framework, the project shape included educator workshops, face-to-face and online/virtual meetings, educator workshops, conversations and email communications, with each of these elements providing opportunity to plan, act/observe and reflect. The broad shape of the project is represented in **Figure 2**.

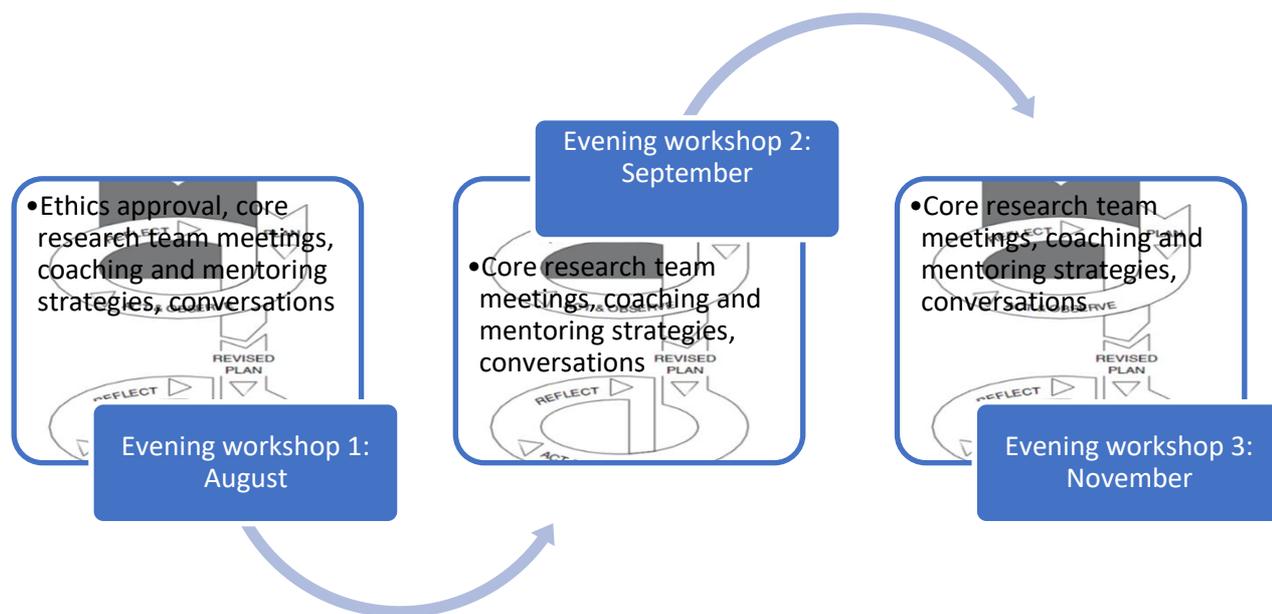


Figure 2. Shape of project

Across the project key educator workshops provided input of knowledge and resources within the research focus on children’s physical health and wellbeing and included many key ‘touch stones’, as points to explore emerging ideas.

Evening workshops

Three key points were the two-hour educator workshops – Monday 7 August 2017, Wednesday 20 September 2017 and Monday 20 November 2017. Each of the workshops were attended by Centre educators, Gowrie Training and Consultancy staff, General Manager (Children’s Services), General Manager

(Professional Development & Support) and the Coordinator (AEDC, Tasmania). The Project Critical Friend, Prof Andrew Hills, and paediatric occupational therapist, Rachel Reid, attended Workshops 2 and 3. PowerPoints for each workshop were provided for participant-educators to continue to access and deepen understandings.

Workshop 1: Monday 7 August 2017. Focus: Understanding the AEDC, Orientation to the Project and Action Research capacity building. At this introductory session, visual cards were used to set the scene with educators to bring into focus their expectations and feelings about the project.

Workshop 2: Wednesday 20 September 2017. Focus: Building capacity about children's physical health and wellbeing. Guest presentation: Professor Andrew Hills (Project Critical Friend).

Workshop 3: November 21 November 2017. Focus: Deepening understandings of the AEDC; building further capacities about children's physical health and wellbeing. At this third and final workshop educator-participants were invited to revisit the visual cards activity from Workshop 1 to identify how they were now feeling at this point in time. In this final workshop the focus was on capturing the impact of the project and the next steps. A World Café approach (<http://www.theworldcafe.com/>) enabled educator-participants to respond to the following questions through facilitated professional conversations:

- What has been a highlight of being involved in the physical health and wellbeing project?
- What has changed for you?
- What has been a challenge?
- What are the next steps...for you?...for the Centre?

A graphic representation of these questions focused on a distillation of key themes and ideas that emerged from the project.

Project meetings

Meetings were held throughout the project in order to capture data and engage with the cyclic action research processes. The Core Research team (see below **Roles with the research**) met fortnightly-monthly, either via Zoom (online) or face-to-face (August, September, November 2017; January 2018).

The Core research team met with paediatric occupational therapist, Rachel Reid (8 August) to further understand this discipline area and build opportunities for transdisciplinary collaborations.

Meetings with Project Critical Friend, Prof Andrew Hills (20-21 September 2017; 20-21 November 2017; 16 January 2018) furthered understandings on children's physical health and wellbeing, with specific application to the project.

Modules and support materials

In addition to the PowerPoints provided at each of the three workshops, two modules were developed as a series of PowerPoint slides – *Critical reflection* and *Working with theories*. Together these materials add to the resources that have

been accessed during the project and form a rich compendium for the Centre to continue to access and engage with.

Key elements

Other key components of the project have included:

- Communication strategies, including project introductory letters to all Centre educators and families;
- Ethics application approved (QUT), with full suite of educator and parent/guardian information and consent materials;
- Full project management tools developed, with scoping document to capture week by week foci and achievements;
- Fortnightly-monthly Core research team meetings: via Zoom, with an agenda guiding discussions;
- Establishment of a mentoring/buddy program to enable deeper level engagement and support;
- Attendance at room programming meetings (Gowrie Training & Consultancy staff) to enable clearer understandings of the project and focus on activities on resourcing and use of spaces;
- Ongoing collaborations and input with Project Critical Friend: Professor Andrew Hills, Professor of Sports and Exercise Science, School of Health Sciences, University of Tasmania.

Roles within the research

Early in the project a structure was developed that would see leadership, coaching/mentoring within the project, and input with content and research expertise. Whilst there was definition around roles, there was also a degree of flexibility that allowed for a culture of collaborative research to emerge.

Project Manager

Trevor Brown (Innovation & Growth Manager, Gowrie Training & Consultancy) was Project Manager for the duration of the Project and provided invaluable managerial and administrative support.

Project Critical Friend

Professor Andrew Hills (School of Health Sciences, University of Tasmania) was the Critical Friend in the Project. Professor Hills' areas of expertise include health and wellbeing of children, specifically movement education and childhood obesity, and provided an optimal alignment with the project focus. This brought a significant transdisciplinary focus to the project, underpinning educator understandings and strategies and worked to strengthen messaging.

Core research team

The project Core research team included: Project lead Dr Megan Gibson, Senior Lecturer, School of Early Childhood and Inclusive Education, Faculty of Education, Queensland University of Technology, members of the Gowrie Training & Consultancy team (Kerrie Hansen, Scott Gibson); Centre educators, including the Centre Manager and Room Leaders.

Researcher-participants

The action research approach inherent in this project saw each educator take on roles as both participant and “teacher as researcher” (Moss, 2006, 2014) (see below **Participants**). The teacher as researcher is considered a legitimate role within research, where the practising educator is part of an exploration of a key idea (Souto-Manning, 2012). In the case of this project, the educators were key to the exploration of how to enable children to flourish in the area of physical health and wellbeing.

Ethics

Approval to conduct the research was obtained from the QUT Human Research Ethics Committee (**QUT Ethics Approval Number 170000695**), with assurance from Lady Gowrie Tasmania that it met their requirements for approval. All researchers held a Tasmania “Working with Vulnerable People: Child related activity” card.

Context: Research site

Lady Gowrie Tasmania is the state’s largest provider of early childhood education and care services. The first Lady Gowrie Child Centre in Tasmania was established in 1939 at Battery Point in Hobart by the incumbent Commonwealth Government as a demonstration, training and best practice model for early childhood professionals across a range of multidisciplinary services – education, care and health. Today, services include 16 Long Day Care services; 20 Family Day Care educators; 14 Outside School Hours Care (OSHC) programs; 6 Vacation Care Programs; 3 Before School Care Programs, and 2 Occasional care programs. The Lady Gowrie Tasmania Integrated Centre in South Hobart was opened in June 2016 as a purpose-built facility on a site previously occupied by a mechanics garage. The long day care service is co-located at the site with the Lady Gowrie Tasmania head office and training facility. In 2017 the Lady Gowrie Tasmania Integrated Centre was the recipient of The Sydney Blythe Award for Educational Architecture, Tasmanian Architecture Awards. During the project the Centre operated with two long day care rooms and one shared space, used by a community preschool program. The design of the service exceeds regulations, offering several smaller outside spaces and one larger enclosed ‘outside’ space. Each room enjoys a lovely outdoor space, with a large, shared indoor/outdoor space providing further outdoor play opportunities. Whilst these spaces afford children multiple opportunities to engage in gross motor play, they do not currently embrace the unpredictable elements found in natural outdoor spaces which, research shows, encourage children to develop confidence and the ability to recognise and manage risk (Little, Elliott & Wyver, 2017).

Throughout the project 84 children attended the service from 36 surrounding local communities. The percentage of children who are developmentally vulnerable, measured against the AEDC domain of physical health and wellbeing, in these communities range from 5.0% to 17.0%, with South Hobart scoring

15.4%. Subsequently, the project was designed to acknowledge the strengths but meet the needs of children with 'developmental vulnerability' within the broader community.

At the time of data collection, the Centre operated two rooms: Davey Room (0-2 year olds, maximum 20 children) and Macquarie Room (3-4 year olds, maximum 24 children). The outdoor play spaces, which were the focus during the project, include a shared space and a space for each of the Davey and Macquarie rooms.

As the project was concluding, in January 2018, two changes occurred within the Centre. First, the Centre Manager was transferred to another Lady Gowrie Tasmania centre and a new Manager commenced. Second, the Centre rooms re-structured and opened a third room, previously used as a community preschool space.

Participants

13 educators participated in the project. All participants held early childhood qualifications (including Diploma of Children's Services, Diploma of Early Childhood Education and Care, Certificate III in Early Childhood) or were working towards a suitable, approved qualification (ACECQA, 2016). All educator-participants were employed permanent part-time (13-32 hours per week, 2-4 days per week) and were employed in a range of positions (e.g., Manager, Educator). Participants had worked at the Centre for an average of seven months (as previously noted in this report the Centre had opened one year and two months prior to the commencement of the project). During the project, four educators resigned, and their replacements joined the research, seeing the continuation of 13 participants.

Methods of data collection

The choice of qualitative data collection methods (Creswell, 2014; Silverman, 2010) was guided by: i. action research methodology; and ii. the type of information needed to best answer research question. The use of qualitative data was a way to develop broad and deep understandings of the ways in which educators make pedagogical decisions that provide the conditions for children to flourish in the area of physical health and wellbeing.

Data collected over the course of the project included multiple sources:

- Action research journal - one workbook each room Centre;
- Excerpts of educator critical reflections – from individual reflective journals, individual notes and conversations;
- Face-to-face semi-structured interviews involving Centre educators;
- Facilitated discussions with Centre educators;
- Field notes recorded by the Core research team, derived from incidental conversations and observations during meetings and workshops;
- Documentary evidence such as policy statements, curriculum materials, pedagogical documentation, email correspondence, minutes of meetings;

- Policy statements, curriculum materials, pedagogical documentation, email correspondence, notes/minutes of team meetings, audio recording of team meetings;
- Samples of pedagogical documentation. Note: Consent additional to the Centre enrolment form was sought from families relating to pedagogical documentation directly sourced through this project

Consistent with participatory action research (Kemmis & McTaggart, 2001; MacNaughton & Hughes, 2009) all participant-educators were involved in data generation, including the Action Research Journal and samples of their pedagogical documentation. Pedagogical documentation reflects children's learning experiences and makes visible, through photos and excerpts of children's/child/ren-teacher dialogue, their thinking and theorising (McArdle, Gibson & Zollo, 2015; Rinaldi, 2006). In the case of this research, the role of the educators will be key to creating data through their pedagogical documentation. Of note is that the Centre uses a programming and pedagogical documentation online platform called Story Park (<https://www.storypark.com/>). Downloaded excerpts of this online platform were considered part of the data.

Methods of data analysis

Inductive and deductive thematic analysis (Clarke & Braun, 2013) procedures were used to analyse the data. Thematic analysis involves the creation and application of codes or categories to the data, then grouping together different - but related - instances of datum under an umbrella term. Applying inductive and deductive data analysis procedures allow for grounding the emerging and developing understandings from the data (Clarke & Braun, 2013). Therefore, for this research, as data was generated it was analysed in reference to the research question, and emerging sub-questions. Key to data analysis were meetings held by the Core research team (as described above). Whilst not a rigid analytical formula, there was nonetheless a consistent method in analysing data, drawing out significant events, ideas and ultimately themes, with data analysis steps including:

- Familiarisation with the data (noting initial ideas);
- Generating initial themes (noting interesting components of the data);
- Searching for themes (collating components into possible themes);
- Reviewing themes (thematic data map);
- Defining and naming themes;
- Producing the report (gathering examples of notable extracts; analysing sections of extracts against research question and literature).

(adapted from Clarke & Braun, 2013)

Findings and discussion

Throughout the project, there was a focus on creating a research culture, where educator-participants were empowered to engage with ideas and through

questioning and provocations be challenged to re-consider pedagogy and practices, particularly in relation to the AEDC domain of children’s physical health and wellbeing. Action research was a useful methodology, making possible insights into the research question:

How can early childhood educators enable children to flourish in the area of physical health and wellbeing?

From early on in the project educator-participants were eager to engage with action research “to learn other ways to look at things” (educator comment, Workshop 1, August 2017).

Sub-questions emerged during the project and were valuable in guiding discussions, becoming points of inquiry throughout. Sub-questions included:

- How do we (educators) utilise the outdoor place spaces at the centre?
- Are there spaces that are not being used to their full potential?
- What are we (educators) currently doing – in relation to the physical environment?
- What are we (educators) currently doing – in relation to children’s physical development?
- What could we (educators) do in the outdoor environment?
- How are ‘obstacle courses’ used in early childhood centres? ...in the Centre?
- What does the environment look like/feel like through the eyes of a child?
- What does it look like to move around and play, in a playful way?
- What does it look like to play in an effortful way?
- How can we (educators) enable children to expend more energy?
- What does physical literacy look like?
- How can we enable children to experience physical movement adversity/failure (and in doing so develop and thrive)?

Mind maps were a useful way to consider these, and other emerging questions. The images below provide examples of some of the mind maps, that capture research sub-questions, and were valuable provocations throughout the project.

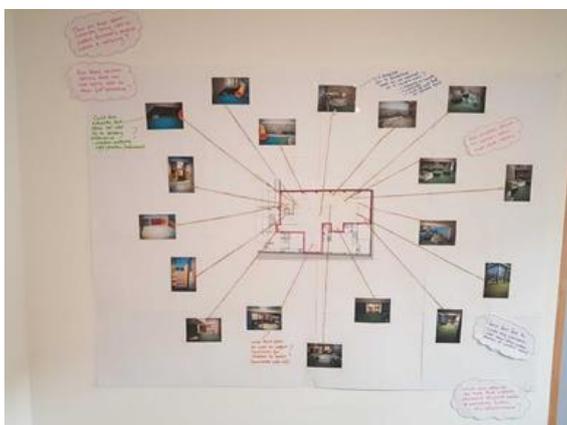


Image 1. Examples of project mind maps

The research findings and discussion are presented together, against the research question. The following findings represent the conditions, identified as themes in the data, as key for educators to enable children to flourish in the area of physical health and wellbeing. The findings are presented as ten themes. Whilst each is discussed separately, there was significant overlap between ideas and concepts within each them. A number of related, overlapping ‘threads’ or ideas that permeated each step of the project and are highlighted here as implicit in each of the themes that emerged through analysing the data. During the project, educators were encouraged to engage in **critical reflection**, through the provocations that were posed, and through the framework of mentoring and coaching. **Working with theories** was a key focus that sat alongside each of the themes, and a module on this topic will remain a resource for educators to continue to explore. **Coaching and mentoring** was implicit and explicit during the Project, and key to educator-participant engagement. A further thread the emerged through each the themes in the data was **risk** – unpacked through the following analysis of data. **Images of children** and **images of families** were recurring foci that came up throughout the project and were considered across each of the themes.

Figure 3 presents at a glance the themes and interrelated threads. The six themes are presented in the middle of diagram, with the four threads – critical reflection, coaching mentoring, working with theories, images of children, images of educators and risk with use of spaces around the edges.

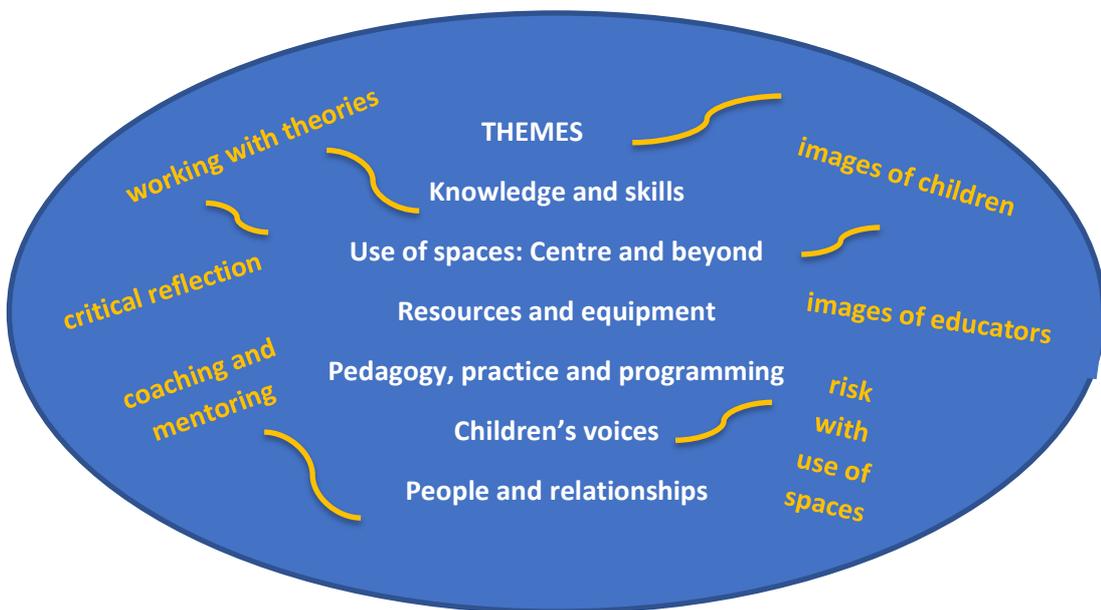


Figure 3. Themes and threads of inquiry

Theme 1: Knowledge and skills

Throughout the project educators’ immersion and engagement with key knowledge and skills enabled deeper understandings and thinking about the ways that educators are able to challenge, extend and ultimately put in place a program so that children are able to reach their physical development potential. Whilst small steps have been made, these have been significant as they lay the

foundations for educators to engage in ongoing thinking and learning about physical health and wellbeing. During the project there was consideration of valuing and validating the skills and knowledge of educators and at the same time challenging and extending thinking about children's physical health and wellbeing.

Through the development of knowledge and skills, educators were encouraged to develop a repertoire that enables children's movement to be optimised. Access to resources enabled educators to build knowledge and skills, and in doing so reconsider the ways in which they provide for children's physical health and wellbeing. The workshop materials, provided access to information about the AEDC and related complementary materials. The AEDC domains were noted "as a lens" through which educators could now think about programming and supporting children's physical health and wellbeing. Knowledge of AEDC data prompted one educator to share "we want what's best for children", noting that an awareness of the data was one way to inform rich play experiences. Towards the end of the Project, during Workshop 3 (November) one educator noted:

It's [AEDC and the Project] has given me a new lens [to view children/programming/planning] (educator comment, Workshop 3)

The knowledge and skills developed through engaging with the AEDC as a tool was empowering and affirming for this educator.

The workshop that Professor Andrew Hills offered, at Week 7, approximately one third of the way into the project, was a timely impetus for thinking about foundational knowledge in the areas of physical development. Two key concepts resonated with educators as they discussed:

- **Physical literacy** – children's competence and confidence in a variety of physical activities in multiple environments; and
- **Motor skills** – locomotor; non-locomotor; manipulative.

Discussion introduced at the workshop and returned to in the weeks that followed reflected educators' interest in commitment to think further about these concepts, and applications within the program. Understandings of child development is central to early childhood education and care programs (Berk, 2009; Ryan & Gibson, 2016). A related idea that was introduced in the Week7 at Professor Andrew Hills' session was the importance for children to have repeated exposure to the same physical experiences to master skills and experience success.

Over the life of the project, a resource folder, containing the PowerPoint presentations from the workshops, and additional materials provided a repository of materials to grow educators' knowledge. Across the course of the research project educators are exploring resources to inform and shape their thinking about physical health and wellbeing. A small selection of examples include:

- Early Childhood Australia resources, including Learning Hub, Webwatch. <http://www.earlychildhoodaustralia.org.au/our-publications/eca-webwatch/>

- *Get Up and Grow: Healthy Eating and Physical Activity for Early Childhood resources*
<http://www.health.gov.au/internet/main/publishing.nsf/Content/phd-early-childhood-nutrition-resources>
- <http://www.activehealthykidsaustralia.com.au/>
- <http://goeeybrains.com/>

An example of the application of these materials as the influence of the term - “**active curriculum**”. Educators developed a heightened awareness of providing experiences that encouraged physical movement, rather than sedentary activity. The Australian Get Up and Grow Guidelines provided provocations for this term and related experiences. It is envisaged that this folder will continue to be added to and referred to beyond the project.

Effortful play was a term introduced early in the project (meeting with Rachel Reid, paediatric occupational therapist). This term provided a provocation for educators to think about how, on a daily basis, they provide opportunities for children to engage in physically challenging effortful experiences.

Educators noted that by engaging with knowledge and different ways of thinking about children’s physical play, their confidence improved:

A major highlight of the project I identified was the increased confidence levels of educators in supporting children to engage in experiences that provided an increased challenge (email correspondence, educator-participant).

Educators’ knowledge and skills were further enhanced through participation in **Active Play Sessions**, introduced at the mid-point of the project. One of the Gowrie Training & Consultancy team, with a particular interest in physical movement and yoga provided sessions for children. Implicit in these sessions was building educator capability and capacity in the area of physical health and wellbeing. For educators these sessions had a significant impact, with children and educators together engaging in these sessions:

The active play sessions were a major turning point in the project. Marcy was incredibly respectful of the children and educators and was able to role model to educators experiences/play sessions that they are able to implement for all children. Before implementing these play sessions Marcy spent time with them in both rooms getting to know the children and educators and I believe this supported these sessions to be based on the needs/interests of the children in the service (email correspondence, educator-participant).

Notably the active play sessions utilised a space in the building that had previously not been used by the Centre educators – a large meeting space (a room with movable furniture). Educators identified the active play sessions, as a “turning point” in the project, not only for the access to knowledge and skills and this area, though for the ways in which they could re-consider the use of spaces within the building.

Theme 2: Use of spaces: Centre and beyond

Throughout the project there was consideration of the ways in which the spaces in the Centre are currently used, and from here thinking about new and different ways to utilise space. Early in the project, educators identified their collective commitment to using spaces in the Centre in creative ways (comments from Workshop One, August 2017). From week one, educators noted that that children use the **stairs** (in outdoor areas and in rooms) and are drawn to these places. Documentation, including observations and reflections, enabled educators to think about how and why young children utilise these spaces.

A key highlight for the re-thinking the use of spaces in the Centre was the introduction **Wheels Day**. The main centre carpark was closed off to provide for a safe, outdoor place for children to ride their wheeled scooters and bikes. Children, families and educators enthusiastically engaged in this experience, which is now part of the Centre program.

In addition to the use of spaces within the Centre careful consideration of access to local spaces. In September, the Core research team visited the local parks around the local Hobart Rivulet and discussed the possibilities for children accessing these spaces. Educators explored the logistics with taking groups of children to this area, within distance to the Centre. After careful planning, and consideration of road crossings (whilst close by the walk entailed a road crossing, with the nearest traffic lights some 100m away) a small group of children were taken on a **Rivulet walk**. This beautiful natural space offers many opportunities for physical experiences. Plans are underway for further walks and adventures in the local Hobart Rivulet area.

Careful consideration was afforded to **transitions** – the ways the children move around the Centre -between levels, spaces (indoor and outdoor) and rooms (e.g., dining room) – use of stairs, lift, hall ways. Given that the Centre is on multiple levels and that children move between rooms, there was also consideration of how children move around the centre. This became an opportunity for thinking about transitions, and utilising these times as rich program times, rather than simply moving from one place to another. Moving down long hallways, up and down stairs and in and out of the lift became times for engaging with physical experiences. Transitions are acknowledged as opportunities to engage and connect with children, creating rich experiences and encounters (Arthur et al., 2015; Rinaldi, 2006)

Educators noted with re-thinking that ways spaces are used and accessed there was a “letting go” and in doing so putting aside fear to “have a go”. This opened possibilities for programming and planning, in relation to physical health and wellbeing experiences. At Workshop 3 in November, an educator shared a project highlight: “Feel like this has given [me] permission to try new things – explore environment”.

Theme 3: Resources and equipment

Considering the ways that moveable and fixed equipment are utilised in the outdoor physical environment was a focus within the project. During the project one of the Core research team from Gowrie Training and Consultancy, spent time

alongside educators to set up the room and share thoughts about uses of resources and equipment. This approach enabled discussions about the placement and use of materials. This process saw role-modelling though also elements of coaching and mentoring to support and guide educators' thinking. A notable example that of equipment that was introduced early on, in week 4 of the project, was a **trapeze swing** in the main, shared outdoor playground. Time was taken to introduce the swing and share ideas about its use:

I am going to set up a space where I can hang a trapeze like swing for the children to be able to pull themselves up on, discussing how this is being used with educators (email correspondence, Gowrie Training and Consultancy staff/member of Core research team).

The introduction of this equipment was enjoyed by the children and became a favourite part of play. Its introduction was key to challenging ideas about the selection of resources and equipment. The swing was also acknowledged as key in building relationships, with "older children helping younger ones" (educator comment, Workshop 3, November 2017). One educator noted that a highlight of the project for her was "working through initial comfort zones and allowing children to engage (i.e. swing)" (educator comment, Workshop 3, November 2017). Educators soon became more comfortable in using this equipment and seeing children engage in swinging:

The swing Scott made and implemented into the playground highlighted the journey of educators' confidence, when this was first introduced to the program educators would leave this swing out for very short periods of time, over the course of the project educators began to leave the swing out for extended periods of time for all children (Email correspondence, educator-participant).

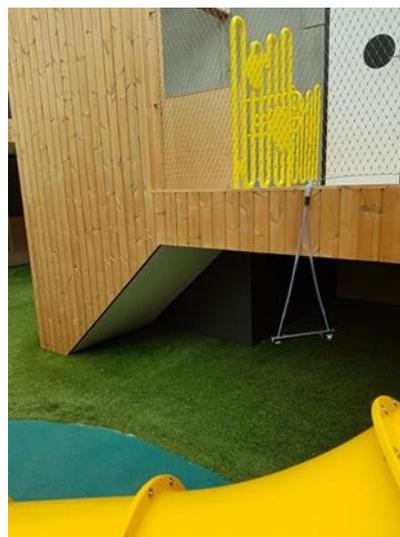


Image 2. Trapeze swing

An example of another piece of equipment that was introduced is a **flat wooden trolley**. This piece of equipment was introduced within a framework of dialogue

to consider how and why resources and equipment are used to support physical health and wellbeing, and particular physical activity. There was a focus on:

bringing in some of that heavy work - again engaging in discussions with educators through this process (Email correspondence, from Gowrie Training and Consultancy staff member/member of Core research team).

Educators were encouraged to think further about the use of resources and equipment through a “loose parts”, introduced within a framework of thinking about the use of materials in creative and innovative ways, whereby children can use resources in multiple ways in their play. An overview of this task was developed and highlighted “in children’s play, loose parts of materials that can be moved, carried, combined, redesigned, lined up, and taken apart and put back together in multiple ways” (*Action Research Project Task 2, Introducing Loose Parts*, Handout for educators). Introduced towards the end of the Project a focus on loose parts enabled educators to think about: the types of loose parts that are appropriate for children when they are playing in the indoor/outdoor environment. Important to the introduction of this, and other key ideas was ongoing coaching and mentoring to support and guide educators’ thinking about the physical activity. This was particularly important when engaging with provocations that stretched educators’ thinking to **use resources and equipment in innovative ways**, and that engaged with **notions of risk**:

[I will] assist in setting up some engaging and more risk-based experiences using a range of open ended resources (Email correspondence, from Gowrie Training and Consultancy staff member/member of Core research team).

Pushing boundaries so as enable children to have access to resources and equipment that would see children flourish in the area of physical activity was a key consideration throughout the project. Related to the considerations of safety and risk was a provocation introduced by Professor Andrew Hills during Workshop 2: Whether supervision of children enhances or impedes their opportunities to engage and flourish physically. This led to valuable discussion about ‘over’ supervising and in doing so put in place a barrier to children flourishing in the area of physical health and wellbeing.

Considerations of the age of children, and extending them physically was an ongoing area of focus:

I am particularly interested in working with the older children on Thursdays when the mix of children are more challenging and causing some issues for the educators - hopefully we will see some positive results with this group when provided with a more challenging environment (Email correspondence, from Gowrie Training and Consultancy staff team/member of Core team).

Early in the project educators brainstormed equipment that they would like to acquire that would enable children to flourish in the area of physical development through a “wish list”. This list became a starting point for discussion and careful consideration of how equipment is used. The selection of equipment and their

use is key to providing rich pedagogical experiences for young children (Gibson, 2016; McArdle, Gibson & Zollo, 2015). Towards the end of the project, educators developed a resource proposal that they would see as beneficial. Through this process the educators not only identified the equipment that they would like to utilise in the program, though were guided through a process of thinking deeply about the application of each piece. Educators' thinking shifted from a one-dimensional use of equipment to innovative ways to use resources within the program. The resource proposal included a rationale for each piece of equipment and provided educators with the framework to articulate the selection, purpose and intentionality for resources. As a process this shifted people's thinking from the initial wish list to a purposeful, carefully considered selection of resources. Towards the end of the project, and after the preparation of the resource proposal, many **new resources and pieces of equipment were purchased**, including A-frames, trestles and balls. Educators as committed to using this equipment in innovative ways, reflective of the resource proposal:

At the final staff meeting [for the year] I shared with educators the resources that had been purchased on their behalf for the children, I look forward to hearing/seeing in the future how this equipment is being utilised and the impact this had on the children/programs as a whole (Email correspondence, educator-participant).

Across the project there were shifts in educators' thinking about the ways in which equipment was acquired and used, with ongoing discussions about developing programs to support children's health and wellbeing.

Theme 4: Pedagogy, programming and practice

As educators held together knowledge and skills and re-considered the use of spaces, and access to resources they were able to consider holistically ways to provide for children's physical health and wellbeing. As one educator commented, around the half way point of the project, the "penny is dropping" and this is "opening up areas of the program".

Throughout the project there was consideration of providing experiences for children's physical health and wellbeing and at the same time working within a frame of early childhood principles that encourages a holistic view of the child, and child development. Therefore, a focus on **integrated learning experiences** that held together domains of child development and curriculum areas, without compartmentalising was important. It requires skilled early childhood educators to hold together these foundational pieces of child development knowledge (Berk, 2009) with innovative approaches to pedagogy and practice (McArdle, Gibson & Zollo, 2015; Ryan & Gibson, 2016).

Educators were already using music experiences regularly within the program to engage children and provide rich learning and play experiences. **Music** was drawn on to develop movement and music games that would provide opportunities for children's physical development. Similarly, the Active Play sessions were not only focused on physical development though interwove a range of development and curriculum areas, thus reflecting an **integrated and holistic approach to curriculum and pedagogy**. Educators noted "changes in children's behaviour",

attributed to the project, with children “more ready to rest” and “less altercations” (comments made a Workshop 3, November 2017). Other notable outcomes included “strengthened relationships with children”.

Research sub-questions enabled consideration of some of the ways to make visible children’s physical health and wellbeing in daily room programming that were accessible to all educators and families. **Pedagogical documentation**, including Story Park (online documentation platform) was a way to make visible children’s experiences and deepening educators’ understandings about physical health and wellbeing. Documenting educators’ current practices, and reflective engagement about children’s physical health and wellbeing and pedagogical decision making about physical development play experiences was key in the project. Small though important steps were made to consider the ways in which documentation can be a tool to make visible children’s thinking, learning and development (Arthur et al., 2017; McArdle, Gibson & Zollo, 2015)

As educators engaged with pedagogy, programming and practice a recurring concept was identified about half way through into the project, was “**intentionality**”. The Early Year Learning Framework (EYLF) (DEEWR, 2009) calls for early childhood educators to engage in “intentional teaching” as “deliberate, purposeful and thoughtful” (p. 15). Through the project, educators made connections, with key elements of the EYLF, as the National early childhood curriculum framework, and the focus on supporting children to flourish in the area of physical health and wellbeing.

Overwhelmingly educators acknowledged their own growth through the project, and as a result identified that this was putting in place the conditions for “children’s growth”. At the same time some educators shared that, “some people are more proactive in the Action Research Project” (educator comment). Special mention was made in the final Workshop 3 of “bringing in more group games – thinking about beyond the ‘walls of the service’ – soccer, running, having open space and wanting to climb”.

Alongside intentionality was an awareness to provide experiences that were driven by children where experiences were led by children, rather than compliance with routine tasks. An example was the ways in which educators re-considered movement around the Centre for transition times. Allowing this experience to be a “prime time” (Greenman, Stonehouse & Schweikert, 2008), where routine experiences are re-considered as key opportunities for engagement, learning and relationships. It requires a skilled educator to hold together regulatory and curriculum requirements with providing rich pedagogical encounters with children (Gibson, 2016; McArdle, Gibson & Zollo, 2015; Rinaldi, 2006).

Theme 5: Children’s voices

There was consistent discussion in the data about the ‘voices of children’. Just as action research is ‘done with’ not ‘done to’ there was a strong commitment from educator-participants to include children’s thoughts and ideas. At the final, third workshop in November educators noted that voices of children were key in the

Project, and indeed as a condition for enabling children to flourish in the area of physical health and wellbeing.

A key task during the project was seeking educators' insights into children – their thoughts and ideas, particularly in relation to physical health and wellbeing, with a specific focus on use of play spaces, resources (Action Research Project Task 1, Voices of Children, Handout for educators). This written activity provided educators the opportunity to reflect more deeply on how children use the environment and how they, as educators, are able to cater for children. A focus on children accessing heavy, big equipment, reflected discussion earlier in the project on effortful play. A perspective from one educator about children being “bored” and sharing “there’s nothing to help stimulate their growth” was taken as an opportunity for discussion about resources and equipment and pedagogy and practice. Subsequent discussions from this task also tapped in the focus from Workshop 2 on Physical literacy and Motor Skills. Educator responses to this task also illuminated the need for messier play and became a starting point for the resources proposal (outlined above).

Listening to children, and reflecting on ways to guide, educate and support them to reach their potential is a focus within early childhood programming (Arthur et al., 2015; McArdle, Gibson & Zollo, 2015; Malaguzzi, 1998). One educator noted that through the project she was “sitting more and asking the children what they would like to do” (educator comment, Workshop 3, November 2017). Another commented that through the project she was now had “deeper understandings [of the children] and knowing their interests”. Educators’ acknowledgement of children’s voices and their agency was a key theme and continued to emerge during the project:

educators also developed greater confidence in supporting children’s sense of agency (Email correspondence, educator-participant).

Inherent in this theme, and across the themes, was key threads of **images of children** and **images of educators**. Values, beliefs, theories and philosophy work together to constitute images of children (Malaguzzi, 1994; Rinaldi, 2006). Developing understandings about how these images are shaped, and re-shaped over time are important foundations for early childhood pedagogy and practice (McArdle, Gibson & Zollo, 2015). In the case of this project, what image/s of children produce a flourishing physical child? As the project concluded, educator-participants noted the importance of shifting “mindsets” about their images of children, particularly in regard to physical health and wellbeing. When asked to share changes that had occurred during the project one educator commented on “shifting thinking and mindset to give different things a go and more talking to the children” (educator comment, Workshop 3, November 2017). Alongside images of children, are inter-related considerations of images educators – what is the role of the educator? Does a passive facilitator enable children to flourish? These and other questions are important places to consider and re-consider the role of the educator to enable children to flourish and reach their potentials.

Theme 6: People and relationships

Whilst each theme within the data is important, it was perhaps the final theme, *People and relationships*, that came up again and again and warrants particular attention. Not surprisingly, people and relationships are widely acknowledged as a basis for pedagogy and practice (McArdle, Gibson & Zollo, 2015; Moss, 2014; Rinaldi, 2006) and as necessary to develop strong and effective teams of staff (Rodd, 2013; Waniganayake et al., 2017).

This theme encapsulates a number of interconnected areas that came up through the data: *teamwork, leadership, coaching and mentoring, communication, culture and structural conditions to support people and pedagogy*.

Early in the project educators identified their collective commitment to working together as a team to provide opportunities for children (comments from Workshop One, August 2017). When asked “What excited you about this project?” a number of educators highlighted the opportunity to work together as team: “Bringing us together to solve challenges; Working together – excites me!”.

Whilst the focus of the project was on physical health and wellbeing, action research became a vehicle for enhancing and enriching **teamwork** within the Centre. There were noticeable relationships shifts as people opened up and shared their thinking about the project. At Workshop 3 one educator commented: “We are more co-operative...close...and are happy”. Positive changes for teamwork were also highlighted by another educator, with “strengthened relationships between educators, and group collaborations”. Another educator noted that the Project saw “educators supporting each other” and “Brought everyone together more”.

There was some initial resistance of the project, however this gradually abated as educators’ comfort level and familiarity grew. In the early weeks people’s engagement was perhaps understandably reticent. By Week 7, or soon after, educators’ enthusiasm and openness to the project was apparent. Consistent with action research methodology a focus on research “with” rather than “on” was an ongoing focus. Alongside this an ongoing thread of empowerment and validation sat with challenging and provoking thinking so as to enable professional growth in the area of children’s physical health and wellbeing. Perhaps the resistance to the Project, and the changes that occurred were most apparent when one educator initially shared her sense of the project through the selection of a “fire” picture card during Workshop 1 in August. Some 16 weeks later during Workshop 2 the same educator choose a picture card of a “calm sea”. On explaining this further she identified her comfort and positive approach to the focus of the project. Alongside this it seemed that elements of trust and respect were at play. This same educator, whose initial resistance was shared at that first workshop, became a spokesperson for the project when a video was made during November.

Leadership was key to the theme of people and relationships. Rodd (2013) offers that leadership in early childhood is about “vision and influence”. Throughout the project educators stepped up, in different ways, at different points to engage with

key ideas and activities. For example, at the early stages an educator shared that could start the project by “Encouraging the members of my team to share something new they would like to try” (educator comment, Workshop 1, August 2017). There were ongoing examples of educators engaging in the key ideas, and in doing so demonstrating leadership. Additionally, the role of Centre staff in leadership positions – Manager, Room leaders – to lead was acknowledged as key and important for the momentum and impact of the project.

Coaching and mentoring were acknowledged by educators as key elements that supported the project. A focus of supportive and guiding educators, as well as mentoring strategy within the Core research team saw deepening of relationships, and richer engagement within key ideas.

Communication during the project was key, with multiple ways drawn on to share and engage with educators. Communication strategies that empowered and motivated people (Waniganayake et al. 2017), and as previously identified in this report validated educators and at the same time challenged thinking were key. Various modes of communication were employed to enable educators to think about children’s physical health and wellbeing – verbal, face-to-face, written, emails, etc. At one point, a closed Facebook page was set up, though educators indicated their reluctance to engage with this.

Throughout the data there was a thread of **fear of ‘breaking rules’**. Educator comments included: “we can’t”; “we won’t be allowed”. Whilst such comments relate to the use of spaces within the Centre and such comments became a basis for discussion and developing shared understanding. These comments are considered under the theme of people and relationships as they speak to **cultural elements** and practices where educators perhaps perceive rules, rather than asking open and honest questions to seek clarification. Leadership on the part of all educators, is key to develop a culture in which trust and respect are lived and breathed (Rodd, 2013; Waniganayake et al., 2017).

The final area within the theme of People and relationships is the **conditions to support people and pedagogy**. During the project, educator-participants expressed their desire for **time and space to dialogue** - to talk through challenging ideas and provocations and, within a supportive culture of leadership, be coached/mentored/led and guided to think in new ways about children’s physical health and wellbeing. At one point in meeting discussions educators identified that access to a Centre-staff space where educators could talk and dialogue or have time to have a lunch break (with a discrete space for Centre staff, and not shared with other Gowrie staff) was desirable and would have provided for further opportunity to engagement within the project.

The duration and design of the project enabled educators to go slowly and deeply to unpack the AEDC domain of physical health and wellbeing. Rinaldi (2006) highlights the importance for educators to have time to dialogue and engage with questions to promote **critique of pedagogical practices**. Due to nature of the work, time for early childhood centre-staff to meet as a whole team is usually restricted to after centre close (Waniganayake et al. 2017). For educators this often means coming back to work or working a long day. Educator-participants in

this project attend an evening whole of staff Centre based meeting approximately once a quarter and participate in programming time as a room team at key points during the year. During the project this time was utilised to focus on discussions about the children's physical health and wellbeing.

Challenges, barriers and opportunities

Early in the project, educator-participants were asked to identify challenges that they might envisage. These included, resources, time, existing spaces -artificial yard and size, mixed age groups (and safety), with one honest educator sharing "the whole thing". Both during and after the Project each of these challenges was turned into opportunities, though the research and by the educators themselves.

Whilst the level of educator-participant engagement increased during the project, there were some challenges that are noteworthy. Key **barriers and challenges** that impacted on the project relate to the staffing and space, and included:

- **Staffing considerations.** During the project there were some staffing considerations, including staff absences, staff changes, educator experience and staffing model, that required careful planning and leadership. Educator absences, particularly during the two months of the project (during winter) meant that frequently relief staff were in the rooms. At times Core research team meeting times were changed to accommodate these staff absences and illnesses. Additionally, during the project there were some staff changes. Both staff absences and staff changes impacted somewhat on the continuity of the project, however new staff participated, enabling a consistent number of participants - 13. The educators within the Centre have a range of experience, however it was acknowledged that many are new to the field, Therefore, a number of educators are establishing their knowledge, skills and confidence. The staffing model at the Centre sees all educators employed permanent part-time. This impacts on the number of educators in each room and the size of the staff team. During the project this was taken into account in respect of communications and leadership. At one point, an educator shared that it was challenging to "motivate the team, with six educators per day". At times these staffing considerations impacted on educators' capacity to fully engage in the project, though throughout the project were managed.
- **Indoor/outdoor space/weather.** Educators noted that during particularly hot weather the large indoor/outdoor play space became warm. At these times access to the two other outdoor play spaces within the Centre was important.

Each of these staffing factors represented challenges and barriers that were considered during the project. At the same each these challenges brought opportunities for leadership and programming, with this noted at the final workshop: "challenges are in fact opportunities" (educator comment, Workshop 3).

The project has brought immense opportunities for the educators, children and for the Centre. The project has no doubt left **traces** that will continue to permeate thinking, programming and pedagogy for individual educator – participants and for the Centre:

I would be hopeful that the project is an ongoing opportunity for educators to reflect on their practices to continually improve best learning outcomes for all children (email correspondence, educator-participant).

At the mid-way point, in September, the project the Core research team met with fellow-AEDC funding recipients from Hobart City Council, and together mapped out possibilities for future collaborations. This has left further traces for the reach of the project beyond the Centre and into the local community.

Key to keeping alive the sparks that were ignited through the project will be ongoing strategies to continue momentum – see Recommendations, below.

Recommendations

The analysis of data and associated considered reflections on the action research project illuminate a number of key recommendations. Whilst these recommendations come from the research findings and discussion, some are more pertinent to the specifics of the project, and some are broader in their orientation.

- During the project, educators’ level of confidence and capabilities with both the AEDC and children’s physical health and wellbeing developed. This laid foundations for ongoing engagement and it is suggested to build on the project and create opportunities for **further engagement and capacity building with understanding the AEDC**.
- A point worth noting is to **proceed with caution**. As with any diagnostic tool, there are benefits and risks with the ways in which this is applied and drawn on to inform programming. Working from a rich and capable image of the child, it is therefore incumbent upon early childhood educators to skilfully navigate the AEDC and tools holding these together with rich pedagogy.
- Educators’ indicated that the AEDC is now a “lens” through which to consider programming and pedagogy. Given the Centre’s commitment to ongoing Quality Improvement Plan (QIP) (AECQCA, 2013), it is recommended that there be **alignment and consideration of the AEDC within the QIP**. Consideration might also be given to making visible the AEDC within Story Park, or other documenting tools, reinforcing “the lens”.
- Given the recognition of **time and space to dialogue** and enable deeper understandings about programming/practice/pedagogy it is recommended that optimal, sustainable be afforded so that educators are able to spend precious time developing thinking and ideas that will impact on children. Noteworthy is that such time and space require leadership, and frameworks to enable critical reflection.

- The project offered many sub-questions, some of which were any touched on, and allow for much scope to explore richly and deeply (e.g., What does play look like? What does documentation look like? What does responsive pedagogy look like?). Additionally, given the key threads that was implicit and explicit in the project, it is recommended that **ongoing program of professional growth and learning** be offered for educators in the areas of:
 - images of children and images of educators;
 - pedagogical documentation; and building on modules developed from this project;
 - working with theories;
 - critical reflection.
- Action research has been a valuable vehicle for educators to explore children’s physical health and wellbeing. Educators are well positioned to draw on and deepen understandings of this methodology, engaging in **“teacher as researcher”** to investigate new, or related research questions. It is recommended to build a culture of research, where questions and challenges are inbuilt – to this end staff meetings as places for dialogue, and critique. The project journals may be useful notebooks for each educator to continue to engage with research questions, challenges and ideas.
- The transdisciplinary nature of this project allowed for deepening understanding about the research topic on children’s physical health and wellbeing. **Transdisciplinary approaches** to research, projects and work opens possibilities to think in richer ways and is recommended as a way forward.
- The access to evidence and research added layers of understanding for educators and had multiple benefits for professional growth and for the impact on programming and approaches to pedagogy. **An ongoing program of accessing research**, and drawing on this in **professional conversations**, is recommended.
- Optimising play spaces was a key focus of the project. Educators appear thirsty to learn more about the spaces that they work in, and to honour the design intentions of the team beyond this award-winning building. A **meeting or forum with the design team and the educators** could provide valuable opportunities for dialogue about the intentions and use of the space.
- Given the preliminary meeting with **Hobart City Council** and the shared commitment to develop child and family friendly play spaces in the community of South Hobart, it is recommended to **pursue this collaboration and develop future projects**.
- Developing this **research as a foundation for future projects** will be important to grow educator-capacity. For individual educators, for the Centre, for Gowrie as an organisation and more broadly for the field of early childhood in Tasmania, and beyond. Though small in scale, this research has potential to be scaled up and developed to have application

across early childhood education and care centres, and beyond. As highlighted in this report, the vehicle of action research provides important conditions to enable educators to think in new and different ways about their work.

Dissemination

Throughout the project there has been commitment to share and profile the research. Dissemination of research is acknowledged as a key responsibility of researchers (Creswell, 2014; Silverman, 2010), as well as cathartic and energising for the researchers, including educators, themselves as a mirror is held up to their work. A project dissemination strategy includes a multi-pronged approach to ensure communication and impact, including Centre and organisation-based materials, professional publications, peer reviewed journal articles and conference presentations:

- Communications with Centre families will share the findings of the project through centre newsletters and an afternoon tea (April 2018);
- A summary of the project findings will be presented to educator-participants at a meeting in April 2018, with a focus on sharing outcomes and inspiring future educator/Centre-led research projects;
- The project outcomes will be presented to Gowrie Children's Services managers at a meeting in April 2018;
- Professional publications to date include an invited piece for ACECQA (Newsletter, submitted October 2017) and Gowrie Australia "Reflections" publication (submitted January 2018);
- Preliminary findings of the research were presented at the ECA Tasmania Branch conference, Hobart, 18 November 2017. A paper will be presented at the AEDC conference, Melbourne 14-16 March, 2018.

Further dissemination of the project will be through a film made and produced by the AEDC in late 2017. The film will be on the AEDC website and accessible by Lady Gowrie Tasmania.

The research team look forward to the next steps of this exciting project and will ensure a clear dissemination strategy sees the outcomes of the Project shared, both through the final report and a range of other publication and conference presentation avenues.

An ongoing program of research

Research funding and policy attention is increasingly afforded to the area of children's health and wellbeing. Local, State and Federal Governments are increasingly aware of the dire consequences if insufficient attention to programs and strategies to optimise children's health and wellbeing (AIHW, 2012, 2017; Hills, et al., 2007; Jancey, et al., 2014; Monteiro, et al., 2014; Stanton & Hills, 2004).). Sadly, lack of appropriate resources for ongoing research and training in

the area is a significant challenge. As children's health and wellbeing is such a compelling issue, it is incumbent on early childhood providers to play a leadership role by providing evidence-based program support for all young children in their care.

The multi-disciplinary research team, representing QUT, Lady Gowrie Tasmania and the University of Tasmania, are committed to building on this important foundational piece of research by actively exploring opportunities within their respective organisations and beyond, to optimise the impact of this pilot within Gowrie Tasmania, across Tasmania, and beyond. Importantly, the current project builds on a substantial body of research undertaken by Professor Hills and Dr Gibson over many years, and together with Lady Gowrie Tasmania provides a strong platform of proven collaboration to address key research priorities in the area of children's health and wellbeing, with a particular focus on early childhood educator capacity.

The project sits within an ongoing program of transdisciplinary health and education research associated with maximising the health and wellbeing of young children. This AEDC-funded research lays important foundations for scaling up this work and applying methodologies to build and grow capabilities and capacities of educators across early childhood education and care settings. In so doing, this work will make a key contribution to the enhancement of health and wellbeing outcomes for all young children.

Concluding comments

The AEDC-funded ***Physical health and wellbeing: Innovative approaches in an inner-city community*** pilot research project provides an important insight into the ways in which early childhood educators provide the conditions for children to flourish in the areas of physical health and wellbeing. The project focused on building educator capability in relation to using AEDC data sets to inform professional decisions; enacting pedagogical practices that afford children opportunities to engage in challenging physical play; and measuring and communicating about the effects of intentional, sustained and contextual practices to parents and families, the local community and other early years services. The research focus promoted understandings of the AEDC, and its applications in early childhood education and care settings, together with using action research, saw key capabilities and capacities built both during and beyond the life of the project.

This innovative, transdisciplinary project, via a qualitative action research approach, captured important data that contribute to understandings about educator pedagogy and decision making in the area of children's physical health and wellbeing. The research was beneficial for the educator themselves, as well as the children and families with whom they work. Additionally, the research has the potential for reach and impact organisationally across Lady Gowrie Tasmania, the largest provider of early years programs in the State. At a broader level, the research offers insights into teacher decision making in the physical development

(an area often-overlooked in preference to early literacy and numeracy) and provides recommendations and proposals for new ways of thinking about the role of early childhood programs in enabling children to flourish in the domain of physical health and wellbeing.

The project leaves traces at different levels. For individual educators and the Centre, the impact of the research will continue as educators apply new lenses of viewing pedagogy, programming and practice. For Lady Gowrie Tasmania there is immense scope to apply action research and considerations of children's physical health and wellbeing across services. For the field of early childhood education and care more broadly, the project offers possibilities to attend to research problems in a sustained, rich and collaborative manner.

A phrase that came up during educator discussions was "from little things big things grow" and it seems that through the ***Physical health and wellbeing: Innovative approaches in an inner-city community*** research project sparks were ignited that will see the reach and impact of this project live into the future.

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