

Every Toddler Talking

Final Report

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Abbreviations

ACECQA	Australian Children' Education and Care Quality Authority
AEDC	Australian Early Development Census
CDI	MacArthur-Bates Communication Development Inventory
CH	Community Health
CWG	Collaborative Working Group
CLASS	Classroom Assessment Scoring System
DET	Victorian Government Department of Education and Training
ECEC	Early Childhood Education and Care
ETT	Every Toddler Talking
LGA	Local Government Area
LLLI	Learning Language and Loving It™
MCRI	Murdoch Children's Research Institute
MGSE	Melbourne Graduate School of Education
NQF	National Quality Framework
NQS	National Quality Standard
SEIFA	Socio Economic Indexes for Areas
SLP	Speech (Language) Pathologist
UoM	University of Melbourne
VEYLDF	Victorian Early Years Learning and Development Framework.

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Executive summary

Every Toddler Talking was a Victorian Department of Education and Training initiative that was implemented and evaluated across 2016 and 2017. This responsive and timely initiative sought to address a need identified through major research including; the Early Language Victoria Study (Skeat, Eadie, Ukoumunne, & Reilly, 2010) finding that up to 70% of 1 to 3-year-old children with early signs of communication problems did not seek help; and the Parents' Evaluation of Developmental Status (PEDS) data before school entry (2011-12) where speech and language difficulties were among the most common concerns expressed by Victorian parents.

There has been growing recognition within both the early childhood education and community health sectors of the importance of the earliest years of childhood as an opportunity to shift children's developmental trajectories using age appropriate pedagogy. In response to this momentum, a model of cross-sector collaboration (i.e, between early childhood education and care (ECEC) services and community health (CH) services) was trialed across rural, regional and metropolitan Victoria – the *Every Toddler Talking* initiative. This model included an embedded and co-facilitated professional learning program that aimed to enhance the development of language and communication in children aged birth to three years.

Mapping of the components of the *Every Toddler Talking* initiative to the Victorian Early Years Learning Development Framework's *Practice Principles for Children's Learning & Development* and *Early Years Learning and Development Outcomes* occurred prior to the delivery of the professional learning in ECEC services and was integrated into the final collaborative model in this report.

The professional learning program that was delivered within *Every Toddler Talking* was the Hanen Centre's *Learning Language and Loving It™*. This program was facilitated in seven local government areas (LGAs) by a speech pathologist and early childhood educational leader. *Learning Language and Loving It™* consists of eight 2-hour professional learning modules and six individual video coaching sessions, addressing the implementation of specific language facilitation strategies within EC educator practice. Participants in *Every Toddler Talking* included 38 ECEC services (19 intervention and 19 control); 7 CH services; 181 early childhood (EC) educators (71 intervention and 110 control); and 273 families (157 intervention and 116 control).

The evaluation design utilised a pre- and post-test cluster controlled model, that aimed to measure the impact of the program and implementation processes. specifically:

1. the evaluation of impact of *Learning Language and Loving It™* upon EC educator practice and child language & communication outcomes, and
2. the evaluation of the process of implementing *Learning Language and Loving It™*, including delivery, scalability, sustainability and collaboration between EC educators and speech pathologists at the individual, service and sector level.

The *Every Toddler Talking* evaluation addressed the key aims of the DET initiative, with four key themes emerging from the findings:

1. *Early childhood educators' knowledge, practice and professional identities were strengthened.*

EC educator practice, was improved in the short- and mid-term based on room level measures of CLASS domains prior to and following the implementation of *Learning Language and Loving It™*. Based on the evaluation design, improvements in EC educator practice were compared across the intervention and control ECEC services, these differences in educator practice were statistically significant in favor of the *Learning Language and Loving It™* participants and attributable to the completion of the professional learning program.

Practice change was supported when more than one EC educator in a room completed *Learning Language and Loving It™*. EC educators within a room encouraged and supported each other to implement the professional learning strategies with children in their care. In particular, instructional support provided to children by EC educators, that is, their use of strategies which fostered concept development, language modeling and the quality of feedback and exchanges with children, was improved and the change was sustained and still improving six months after the completion of *Learning Language and Loving It™*.

EC educators reported i) increased knowledge in children's communication and language development; ii) growth in their self-perception of themselves as professionals; and iii) sustained ability to describe the strategies they were using in child interactions that were taught as part of *Learning Language and Loving It™*. Following *Learning Language and Loving It™*, EC educators reported being better able to support every child's learning and development based on their increased knowledge and implementation of the strategies.

2. *Strong collaborative relationships between EC educators and speech pathologists were established.*

Cross sector co-facilitation of an EC educator professional learning program fostered collaboration between EC educators and speech pathologists; ECEC services and community health services; and promoted stronger professional relationships that had unexpected positive consequences for referral processes and family support.

3. *There is evidence of improved communication outcomes for young children.*

Child vocabulary development across intervention and control groups was measured to track developmental changes that may be attributed to the collaboration and professional learning. There were only small and non-significant shifts in vocabulary outcomes when compared across the groups. There was tentative evidence that gaps between children in early vocabulary development may be diminished through improved educator practice.

4. The key learnings and sustainability of outcomes of the *Every Toddler Talking* initiative.

Focus groups with teachers, facilitators, and service leaders provided an understanding of the process of participating in and implementing *Every Toddler Talking*. In synthesising the evaluation data for both impact on practice and the process of collaboration, specific ‘threshold conditions’ emerged as being directly relevant to the success of the implementation. Threshold conditions included the stability of leadership and staffing in ECEC services, and ECEC service capacity to commit staff time and resources to the professional learning program, planning and implementation of instructional strategies.

Professional learning, which provides i) content knowledge, ii) practice strategies that support and strengthen EC educator-child interactions, iii) high quality coaching, and iv) video feedback to support implementation, are best placed to produce sustained quality improvements for educators who are currently employed in the sector. The systematic and sector wide integration of these features of professional learning programs into initial EC educator training programs also warrants careful consideration.

Every Toddler Talking makes a significant contribution to the early childhood field in Victoria, Australia, and internationally. It represents one of a few studies which have confirmed the successful impact of professional learning on EC educator practice in a sustained way, specifically, in the instructional support for language learning in very young children.

Background

Every Toddler Talking was a key initiative of the Victorian Department of Education and Training (DET) to explore effective approaches for improving language and communication outcomes in early childhood (birth to three years). *Every Toddler Talking* aimed to enhance the development of language and communication in infants and toddlers by facilitating collaboration between early childhood (EC) educators and allied health professionals (specifically, speech pathologists).

The aims of the *Every Toddler Talking* initiative were to:

1. Increase the knowledge and practice of early years professionals¹ in enhancing language and communication skills among children (birth to three years).
2. Strengthen collaborative practice between allied health (speech pathologists) and EC educators.
3. Enrich children's language and communication learning and development.

This report details:

- the aims of the *Every Toddler Talking* initiative;
- a description of the research methodology, including recruitment, and a participant overview;
- a description of key outcome measures and data collection procedures;
- key findings and discussion;
- discussion of threshold conditions that are needed prior to the implementation of professional learning, and
- a model of collaborative practice.

Introduction

The early years of childhood lay the foundation for health and wellbeing across the lifespan. Early childhood is a time when children experience enormous developmental growth across a number of areas, including communication, social and emotional development and cognition. Early communication skills are known to predict later social, emotional, academic and vocational achievement (Law, Rush, Schoon & Parsons, 2009). It is for this reason that attention and investment is being given to the language learning environment and life experiences of very young children. When looking at children beginning school in Victoria, the 2015 Australian Early Development Census (AEDC) found that 6.3% were developmentally vulnerable, and a further 8.9% of children were considered 'at-risk' in regards to their language and cognitive skills (Australian Government, 2016).

Parents and caregivers in the home are the adults that exert greatest influence on the young child's early learning experiences. In addition, the early childhood education and care (ECEC)

¹ The term early childhood professional, as defined in the VEYLDF (Victorian Department of Education and Training, 2016) includes, but is not limited to, all early childhood practitioners who work directly with children in early childhood education and care settings, health professionals, early childhood intervention workers, as well as maternal and child health nurses, teachers, inclusion support facilitators, and a range of other professions and roles.

environment can positively influence children's early learning experiences. Momentum is building in the ECEC sector to pay more attention to birth to three year olds, their learning characteristics, and what evidence based strategies best facilitate this. There is extensive literature which provides the evidence for 'high-quality' programs of specific intensities that positively impacts child development and later adult outcomes (Belfield, Nores, Barnett, & Schweinhart, 2006; Campbell & Pungello, 2014; Campbell et al., 2012). In addition, high quality early language learning environments in an ECEC setting can support and improve children's developing communication skills (Tayler, 2017). This includes supporting the learning experiences of very young children with strategies that are intentional and reflect the image of the very young child as competent and capable. Children from lower socio-economic backgrounds are more likely to experience less high quality ECEC (Tayler, 2017) and begin school with vulnerabilities in one or more areas (Australian Government, 2016). They also stand to benefit most from high quality early childhood education (Sylva, Melhuish, Sammons, Siraj-Blatchford, & Taggart, 2004; Tayler, 2017).

The *Every Toddler Talking* initiative was informed by the Victorian Early Years Learning and Development Framework (VEYLDF), inclusive of Practice Principles and five Outcomes for Learning and Development, which provide a shared language for EC professionals. The importance of fostering early communication skills is reflected in the VEYLDF (Victorian Department of Education and Training, 2016), specifically in Outcome 5, *Children are effective communicators*, in addition to the role of EC educators in supporting emerging communication skills reflected in the VEYLDF Practice Principles. The VEYLDF has guided and informed the design, development, implementation and evaluation of the *Every Toddler Talking* initiative.

This initiative was conducted in two phases. Phase One involved a review of the literature and current practices supporting early communication and language development in ECEC services. This phase was completed by the Murdoch Children's Research Institute (MCRI) in 2015, and is described in more detail below. Phase Two, was completed across 2016 and 2017, and evaluated an intervention targeting high quality communication support by EC educators. By fostering collaborative partnerships between the health and education sectors, *Every Toddler Talking* created an opportunity to develop a collaborative practice model to benefit the practice of EC educators and the early communication trajectories of young children. Phase Two was conducted by the Melbourne Graduate School of Education (MGSE) Early Childhood Education and Care team within the University of Melbourne.

Summary of Every Toddler Talking Phase One

The Centre for Community Child Health (CCCH) and the Centre of Research Excellence in Child Language (CRE-CL) at the MCRI was engaged by DET to undertake Phase One of the *Every Toddler Talking* initiative. The full details of this phase are available in a report prepared by CCCH and CRE-CL ([Every Toddler Talking Phase One Report](#)) (Murdoch Childrens Research Institute, 2015). In summary, this included:

1. a rapid review of evidence-based programs and practices that have been shown to promote children's language and communication;
2. a review of current practices used in Victoria to promote children's language and communication; and
3. engagement of experts and professionals from relevant sectors in the design of a feasible and suitable evidence-informed model and recommendations for evaluation.

Based on the findings of the rapid review, and in consultation with the sector, four programs were considered that met the requirements of *Every Toddler Talking*. These four programs were *Learning Language and Loving It™* (Weitzman & Greenberg, 2002), a joint attention program (Rudd, Cain, & Saxon, 2008), *Teacher Talk™* (Weitzman, 2002) and the option of developing a new program. Figure 1 details the questions that guided the consideration of each program.

1. Was there evidence to indicate the program's effectiveness against the desired *Every Toddler Talking* outcomes?
2. Did the program facilitate sustained collaboration between EC educators and allied health professionals?
3. Was the program in use in Victoria?
4. Did the program explicitly align to the VEYLDF?
5. Was it suitable for Victorian EC educators?
6. Was it suitable for Victorian allied health professionals?
7. Was it appropriate for Aboriginal and Torres Strait Islander communities?
8. Was it suitable for rural and regional areas?
9. Was the program replicable?
10. Was it feasible?
11. How much does it cost?

Figure 1: Considerations in the selection of an appropriate intervention (MCRI, 2015)

Of these four options, The Hanen Centre's *Learning Language and Loving It™* was determined to be the most viable for the *Every Toddler Talking* initiative. *Learning Language and Loving It™* was found to have the strongest evidence to support its effectiveness, and had features which aligned with the principles underpinning collaborative practice. Research has demonstrated positive outcomes among EC educators working in rural areas of the United States of America, and these findings had been replicated in a number of countries that have similar characteristics to Australia, including Canada, the United States of America and Ireland.

In the development of Phase one of *Every Toddler Talking, Learning Language and Loving It™* was mapped against the eight VEYLDF Practice Principles (Victorian Department of Education and Training, 2016) by the Murdoch Children’s Research Institute. This is presented in summary in Table 1 below, and in greater detail in Appendix 1 and in the [Phase One report](#).

Table 1: Learning Language and Loving It™ (LLLI) mapped against the VEYLDF (MCRI, 2015)

Practice Principle	Level of alignment	Comment
Partnerships with families	<i>Moderate</i>	LLLI encourages an environment of respect which may lead towards a welcoming and inclusive environment for families.
Partnerships with professionals	<i>Strong</i>	LLLI encourages a commitment to working together to improve educators’ individual practice in the ECEC setting, drawing on the expertise of a speech pathologist.
High expectations for every child	<i>Moderate</i>	The strategies of LLLI reflect some of the principles that communicate high expectations to children
Equity and diversity	<i>Weak</i>	Although LLLI is aimed at children from diverse backgrounds, available information did not indicate the program recognises bi- and multi-lingualism, promotes cultural awareness, supports a sense of place and identity or encourages environmental sustainability.
Respectful relationships and responsive engagement	<i>Strong</i>	LLLI encourages a responsive ECEC environment: respectful interactions between educators and children and extension of children’s learning through a number of strategies.
Integrated teaching and learning approaches	<i>Strong</i>	LLLI encourages: educators’ engagement and interaction with children; a focus on children’s own interests in order to facilitate learning and; many of the approaches that adults can use to extend children’s learning through play.
Assessment for Learning and Development	<i>Not applicable</i>	
Reflective practice	<i>Moderate</i>	LLLI promotes practices that have been shown to be successful in supporting children’s learning and development, and is designed to change practices among EC educators. The coaching component provides opportunities for reflection.

As a result of consideration of the extent to which *Learning Language and Loving It™* addressed the VEYLDF Practice Principles, three enhancements to the program were recommended:

1. Multidisciplinary (i.e., EC educational leaders and speech pathologists) certification training and multidisciplinary delivery of *Learning Language and Loving It™* to enhance collaboration;
2. Inclusion of a VEYLDF and National Quality Standard (NQS) training component to *Every Toddler Talking* to enhance the program's applicability to the Victorian context; and
3. Continued collaborative working groups across health and education sectors to enhance collaboration and sustainability.

The above recommendations were made to DET in December 2015.

Implementation of the Every Toddler Talking Initiative

In line with the recommendations made at the conclusion of Phase One (Murdoch Childrens Research Institute, 2015), DET undertook to implement *Every Toddler Talking* across seven Victorian Local Government Areas (LGAs) in 2016.

Trial Site Selection

Selection of Local Government Areas

Seven LGAs were selected to participate in *Every Toddler Talking* through responses to a call for expressions of interest (EOIs) from both Community Health (CH) services and ECEC services in November 2015. The selection of locations was made by a committee that included representation from both DET and DHHS regional offices, and the Early Learning and Development Reform Branch. The eligibility criteria for ECEC services to participate in *Every Toddler Talking* are detailed below.

<p>To meet eligibility criteria, ECEC services were required to:</p> <ul style="list-style-type: none">• be providing centre-based long-day care;• have at least three EC educators working with children under age three;• have a minimum rating of 'meeting' in all National Quality Areas;• not be taking part in another research trial or professional learning program that focuses on language and communication;• submit a letter of support from the approved provider/manager.	<p>To meet eligibility criteria, community health services were required to:</p> <ul style="list-style-type: none">• employ a speech pathologist with experience working with children aged birth to three;• not be taking part in another research trial that involved speech pathologists working with EC educators;• submit a letter of support from the CEO of the community health service.
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Figure 2: Service requirements for EOI submission/participation in *Every Toddler Talking* (Intervention)

A number of additional factors were taken into account by DET project staff when selecting the locations for the delivery of *Every Toddler Talking*. From the submitted EOIs, the co-location and proximity of suitable ECEC and CH services, socioeconomic status (as measured by SEIFA) and the proportion of children within the LGA who were developmentally vulnerable (as indicated by the AEDC (Australian Government 2016)) were considered. Selection was predominantly driven by co-location of ECEC and CH services. Specific eligibility criteria for the AEDC or SEIFA indicators were not set during the selection process, however services in relatively lower socioeconomic areas, with a higher prevalence of children with developmental vulnerabilities were given preference. A degree of variability in ECEC service attributes (e.g. size, location, demographics and staffing) was present. These varying features, along with other factors that emerged over the course of the intervention informed the *threshold conditions*, discussed as part of the findings of this report. The seven locations include two rural, two regional and three metropolitan LGAs.

Implementation Design

The professional learning component of the *Every Toddler Talking* initiative was the delivery of the Hanen Centre's *Learning Language and Loving It™* program. The *Learning Language and Loving It™* program was delivered to EC educators from three ECEC services in seven different Victorian LGAs. The program was delivered collaboratively by an educational leader and a community health speech pathologist in each location. The educational leader and speech pathologist who worked together will be referred to as *paired professionals*. The model delivery of *Every Toddler Talking* is presented in Figure 3.

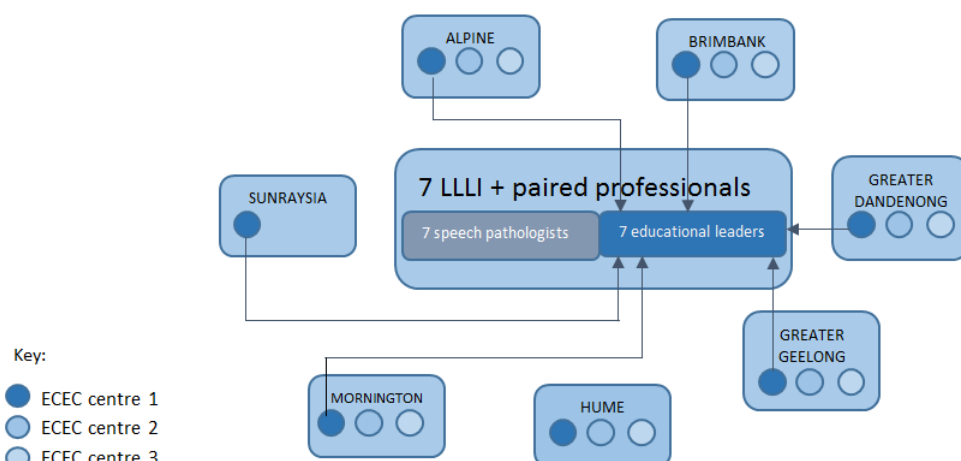


Figure 3: Delivery of Learning Language and Loving It™ training to intervention sites (MCRI, 2015).

The implementation of the *Every Toddler Talking* initiative was managed by staff within the Early Years and Primary Reform Division of DET, and included i) Facilitator Training for the paired professionals, including *Learning Language and Loving It™* certification and multidisciplinary training in November 2015, ii) *Learning Language and Loving It™* EC educator training and coaching, and iii) Collaborative Working Group meetings. The selection of trial ECEC services and the implementation of these components are detailed further below.

Selection of Early Childhood Education and Care Services for the Intervention Group

Following the selection of the seven LGAs specified above, the selection of ECEC services to participate in *Every Toddler Talking* and be involved with *Learning Language and Loving It™* within each location was completed using the process outlined in Figure 4.

Nineteen ECEC services participated in *Every Toddler Talking* across the seven LGAs. Initially, 19 ECEC services were selected through the EOI process, with one additional ECEC service invited to participate (Table 2). Three ECEC services withdrew before the commencement of the *Learning Language and Loving It™* sessions. This was due to extraneous factors, including staffing and management changes, and participation in other professional learning programs and interventions.

1.1. Early childhood education and care (ECEC) services and community health (CH) services were invited via DET and Department of Health and Human Services (DHHS) bulletins to submit an expression of interest (EOI) to participate in the trial. Peak bodies were invited to inform their networks of the opportunity and the EOI was open for over four weeks. There were 63 complete EOIs received from ECEC services, and 34 from CH services.

1.2. The selection panel included key members of the *Every Toddler Talking* working group, including representatives from the DET and DHHS regional offices, and the Early Learning and Development Reform Branch.

3. The panel undertook the following steps to make their recommendation:

- Determined eligibility of service applying (an approved centre based long day care service with children aged 0-3 in attendance, that met or exceeded National Quality Standard and had sound compliance with legislative requirements)
- Identified viable trial locations where a CH service and three ECEC services had applied
- Reviewed the quality of the service's online EOI
- Prioritised trial locations according to level of disadvantage using Australian Early Development Census (AEDC) and Socio-Economic Index for Areas (SEIFA) data (decile 1 to 10)
- Reviewed service characteristics to ensure a mix of legal entities, size of services, rural and metropolitan, and distribution across the four DET regions.

Figure 4: Requirements for LGA, ECEC service and CH service participation in *Every Toddler Talking* (Intervention).

Two additional ECEC services were recruited through invitation. It was not possible to recruit a replacement ECEC service in the Sunraysia LGA due to the smaller populations and limited number of ECEC services within the region.

Table 2: Recruitment of ECEC services into the Intervention Group

LGA	ECEC services recruited through initial EOI	ECEC services recruited through invitation	ECEC services who withdrew prior to commencement of LLLI	Replacement ECEC services invited to participate	Final ECEC services
Alpine	3	0	0	0	3
Brimbank	3	0	0	0	3
Greater Dandenong	3	0	1	1	3
Greater Geelong	3	0	0	0	3
Hume	3	0	1	1	3
Mornington	2	1	0	0	3
Sunraysia	2	0	1	0	1
TOTAL	19	1	3	2	19

Selection of Paired Professional Learning Facilitators & Training in *Learning Language and Loving It™*

Concurrently with the recruitment of ECEC services, an early childhood educational leader and a community health speech pathologist in each LGA were identified through the EOI process to facilitate the delivery of *Learning Language and Loving It™*. Together these paired professionals received facilitator certification training (in a 'train-the-trainer' model) in *Learning Language and Loving It™*. This training took place over three days in Melbourne and was delivered by a Hanen Centre trainer. For a more detailed description of *Learning Language and Loving It™*,

please refer to the [Every Toddler Talking Phase One Report](#) (Murdoch Childrens Research Institute, 2015), and the [Hanan Centre website](#) and resources.

Paired professionals also participated in an additional one day professional learning program that included leadership and coaching skills, as well as mapping of the *Learning Language and Loving It™* program to the VEYLDF (Victorian Department of Education and Training, 2016), the National Quality Standard (NQS), and Community Health Service guidelines.

The educational leader in the Hume LGA resigned from her position after attending the three days of *Learning Language and Loving It™* training. An experienced EC educator, who is employed by an Early Childhood Intervention Service (ECIS), was engaged as a replacement co-facilitator prior to the delivery of the first session of *Learning Language and Loving It™*. This is reflected in Figure 3 above.

Learning Language and Loving It™ EC educator Training

The paired professionals delivered the *Learning Language and Loving It™* program to a group of approximately 11 EC educators from the three ECEC services within their LGA. The delivery of the eight sessions and six video coaching sessions commenced in late June or July 2016, and ran until October or early November. In some locations, a break of up to three weeks was taken between sessions to allow facilitators to take annual leave, as shown below.

LGA	2016					
	June	July	August	September	October	November
Alpine						
Brimbank						
Greater Dandenong						
Greater Geelong						
Hume						
Mornington						
Sunraysia						

Figure 5: Scheduling of face to face (indicated in green) and video (indicated in blue) sessions by LGA

Every Toddler Talking Collaborative Working Groups

Collaborative Working Groups (CWGs) were instigated to support EC educators from the ECEC services to use strategies from the *Learning Language and Loving It™* program in their practice to support children's language and communication. CWGs included the paired professionals in each LGA, the educational leaders from the ECEC services engaged in the professional learning program, and/or another ECEC service representative who was responsible for embedding the strategies learned in *Learning Language and Loving It™*. The CWGs met at regular intervals between late 2016 and 2017 to reflect on their progress in supporting children's language and communication (birth to three years), and their Quality Improvement Plan activities.

Evaluation of the Every Toddler Talking Initiative

Evaluation Design

The University of Melbourne was engaged by DET to evaluate the *Every Toddler Talking* Initiative. The evaluation design was developed by Professor Collette Tayler and Associate Professor Patricia Eadie, and included two key foci:

1. **Evaluation of Impact** of *Learning Language and Loving It™* upon EC educator practice and child language & communication outcomes
2. **Evaluation of the Process** of implementing *Learning Language and Loving It™*, including delivery, scalability, sustainability and collaboration between EC educators and speech pathologists at the individual, service and sector level.

The evaluation was conducted under the approval and protocols sanctioned by the University of Melbourne Human Research Ethics Committee (ID 1646484) and in accordance with linked approvals provided by the Victorian Government Department of Education and Training (2016_003028).

The *Every Toddler Talking* study design was based on a pre- and post-test cluster controlled evaluation model. In response to the conditions in place through the DET selection of intervention ECEC services, the evaluation methodology adopted cluster sampling techniques to recruit the ECEC services that served as controls. Based primarily upon the location of the intervention ECEC services, a randomisation process was adopted to select the control ECEC services. Pre- and post-intervention measures were utilised to allow comparisons between the intervention and control groups. In line with the methodology described above, the evaluation sequence for the DET *Every Toddler Talking* initiative followed the intervention schedule set by the DET outcomes model (Appendix B), and consisted of the stages outlined below:

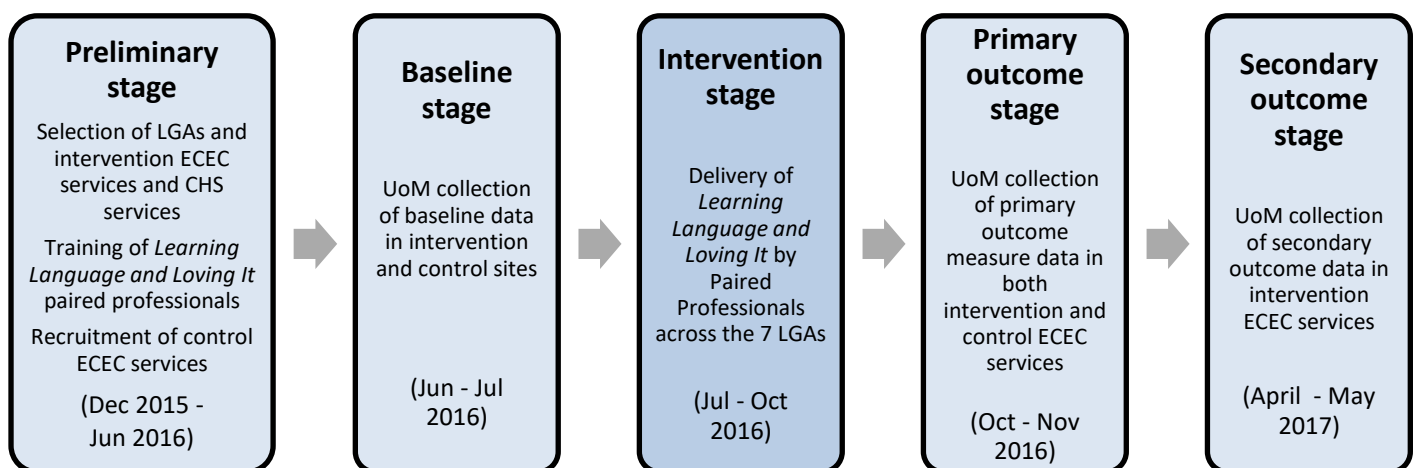


Figure 6: *Every Toddler Talking* Evaluation Design

Selection of Early Childhood Education and Care Services for the Control Group

The University of Melbourne's selection of control ECEC services within each LGA was completed using the criteria specified in Figure 7.

1. All ECEC services within the intervention implementation LGAs were identified (Alpine, Brimbank, Greater Geelong, Greater Dandenong, Hume, Mornington and Sunraysia)
2. All ECEC services not participating in *Every Toddler Talking* as an intervention ECEC service that met the following criteria were included; providing a centre-based long day care service, meeting or exceeding NQS, having approved status and demonstrating compliance with legislative requirements.
3. Included ECEC services were rank-ordered by those that did submit an EOI to participate as an intervention site and were not selected for the intervention, and those that did not, and then by 2011 SEIFA rating (decile 1 to 10), then randomised within each SEIFA decile band.
4. Using the rank-ordered selection list, the first three ECEC services were invited via letter to participate as a control site. Replacement ECEC services were added as necessary by moving down the rank-ordered list until three sites in the relevant LGAs were recruited. When the list within an LGA was exhausted, the process was repeated within the neighbouring LGAs.

Figure 7: Process of selection for *Every Toddler Talking* (Control ECEC services).

Following this process, 64 ECEC services were approached to participate in *Every Toddler Talking*, before 19 ECEC services agreed to participate as control ECEC services (see Table 3). All ECEC services within the Alpine LGA were participating as intervention ECEC services. Four ECEC services within the Wangaratta LGA were initially contacted, of which one agreed to participate as a control ECEC service. Following this, three ECEC services in the Wellington LGA were approached, of which two agreed to participate as control ECEC services.

Table 3: Recruitment of ECEC services into the Control Group

LGA	Within LGA		Neighboring LGA		Total ECEC services recruited
	ECEC services approached	ECEC services recruited	ECEC services approached	ECEC services recruited	
Alpine	.	.	7	3	3
Brimbank	8	3	.	.	3
Greater Dandenong	8	3	.	.	3
Greater Geelong	16	3	.	.	3
Hume	15	3	.	.	3
Mornington	7	3	.	.	3
Sunraysia	3	1	.	.	1
TOTAL	61	17	3	2	19

As there was only one ECEC service in the Sunraysia LGA participating as an intervention ECEC service, it was determined that only one control ECEC service would be sought. The service that became the control ECEC service within the Sunraysia LGA had previously considered being an intervention site, but was not able to proceed with participating in the intervention due to staffing arrangements within the ECEC service. A relatively large number of ECEC services were contacted within the Greater Geelong and Hume LGAs before three control ECEC services were recruited. ECEC services who declined the invitation to participate in the evaluation commonly cited low enrolments in rooms that catered for children under the age of three, low parental engagement, staffing instability or participation in other research studies.

Every Toddler Talking Participants

Following the selection of 19 control ECEC services, formal written consent was obtained from participants at the intervention and control ECEC services prior to the collection of data. Participants included i) the paired professional facilitators of the *Learning Language and Loving It™* program; ii) EC educators within the ECEC services participating in the *Learning Language and Loving It™* program and EC educators from control ECEC services; and iii) children from rooms within the ECEC services where EC educators were part of the intervention or control groups. Paired professionals, (the speech pathologist and educational leaders facilitating the intervention), consented to provide information about their professional work history and experiences, and to participate in a focus group after the *Learning Language and Loving It™* program had been completed.

EC educators who participated in *Learning Language and Loving It™* provided consent to i) be observed in their practice in the ECEC services infant and toddler rooms; and ii) provide their reflections on the professional learning experience in focus groups. EC educators in control ECEC services provided consent to be observed in their routine practice in the infant and/or toddler rooms in which they work.

Parents and/or caregivers of children who attended rooms where EC educators participated in the *Learning Language and Loving It™* program provided written consent and contact details (email address and mobile phone) to be provided with a survey and a vocabulary development checklist, the McArthur Bates Communicative Development Inventory (McArthur Bates CDI). Consent was not requested from parents and/or caregivers prior to observation within ECEC services, as no identifying information was collected from families or children during observations. No ethical issues, concerns or notifications emerged during the evaluation study.

Every Toddler Talking Evaluation Measures

The evaluation of *Every Toddler Talking* utilised a pre- and post-test cluster controlled, mixed methods design, including both quantitative and qualitative measures. Measures were chosen to evaluate the impact of *Learning Language and Loving It™* upon EC educator practice and child language and communication outcomes as well as process measures regarding the implementation of *Every Toddler Talking* initiative. Measures of participant characteristics, EC educator practice, child outcomes and process and implementation are described below.

Participant Characteristics

Paired Professionals' Surveys

The paired professionals completed a survey prior to the commencement of *Learning Language and Loving It™*. They were asked to provide details of their training, experience and career history, and were asked to share their knowledge, experience and understanding of collaborative practice.

Child & Caregiver Demographics

The parents and caregivers of children who participated in *Every Toddler Talking* completed a

detailed demographics survey at the baseline data collection. This survey asked respondents to provide their child's date of birth, gender, Aboriginal and Torres Strait Islander status, place of birth, and language(s) spoken at home. Respondents were also asked to provide information about the child's mother, father and/or primary caregiver, including their level of education, and Aboriginal and Torres Strait Islander status. Families were asked to provide the postcode of their home address for the purpose of SEIFA calculation. Respondents also provided details of long day care enrolment, and other forms of childcare.

A shorter survey was distributed at follow up data collection time points, and respondents were asked to confirm that the information provided in the first survey was still current, and if not, to provide updated information. Respondents were also asked to report if there had been a change in their child/ren's ECEC service enrolment, and if any significant events had occurred in their child/ren's life since the previous survey.

Early Childhood Educator Demographics

Information about EC educators' level of qualification (Certificate III, Diploma, Bachelor Degree or higher) and their role or position within their ECEC service was collected by research assistants during observation visits. Qualifications provide one way to reflect prior learning in child development and pedagogical practice; and were considered when analysing EC educators' responses to the professional learning and practice change.

Measurement of Early Childhood Educator Practice (within ECEC Rooms)

The Classroom Assessment Scoring System (CLASS)

Every Toddler Talking aimed to build upon EC educators' skills and develop high quality practice in facilitating sustained interactions that promote language skills and enrich children's learning. The *Learning Language and Loving It™* program facilitated and supported change in EC educator practice. In order to measure change in EC educator practice, the Classroom Assessment Scoring System (CLASS) was utilised (La Paro, Hamre, & Pianta, 2012; Pianta, La Paro, & Hamre, 2008). CLASS Pre-K provides a valid and reliable measure of room level quality across the domains of *Emotional Support*, *Classroom Organisation* and *Instructional Support*, and the CLASS Toddler in infant/toddler rooms' measures *Emotional and Behavioural Support*, and *Engaged Support for Learning*.

Previous Victorian based research, including E4Kids (Tayler, 2017), and the Victorian Advancing Early Learning (VAEL) study (Pilsworth, MacBean, Tayler, Page, Eadie & Niklas, 2017), documented consistent and relatively poorer performance in the Instructional Support (in three-year-old Pre-K rooms) and Engaged Support for Learning (Infant/Toddler rooms) domains. These domains map well on to the aims of *Learning Language and Loving It™* (CLASS dimensions for this domain include facilitation, concept development, quality of feedback, and language modelling). CLASS maintains high levels of validity and reliability through the training and testing processes required for all users of the tool. A team of research assistants were trained and

Teachstone certified² as clinically reliable in the use of the CLASS tool. Research assistants worked to a specified data collection protocol to ensure consistency while in the field.

Focus Groups and Interviews

Focus groups (described in detail below) included detailed discussion of EC educators' perceptions of their own practice change.

Measurement of Child Language and Communication Outcomes

Child language and communication may be measured through a number of assessment approaches. Most commonly, either parent report or direct face to face observation by a skilled early childhood professional are utilised in research studies. Measures based upon parent report are known to be accurate and reliable for very young children, and were determined to be the most viable and cost effective means of measuring change in child language and communication in the *Every Toddler Talking* initiative. Specifically, the *MacArthur-Bates Communicative Development Inventories (MacArthur-Bates CDI)* was selected.

MacArthur-Bates Communicative Development Inventories (MacArthur-Bates CDI)

The *MacArthur-Bates CDI* (Fenson et al., 2007) were used to measure child vocabulary as an outcome. The MacArthur-Bates CDIs are parent report instruments that have been widely used in international studies of child language development (including Australian versions of vocabulary checklists) and have well documented validity and reliability data based on correlation studies of face-to-face assessment with *MacArthur-Bates CDI* outcomes. The use of the *MacArthur-Bates CDI* enables a consistent and scalable parent report tool across the possible age range specified within *Every Toddler Talking*. It provides total scores and percentile ranks suitable for comparison across time points. Versions of the *MacArthur-Bates CDI* are available for Infants (Words and Gestures, 8-18 months), as well as Toddlers (Words and Sentences, 16-30 months). In addition, a shorter upward extension (*MacArthur-Bates CDI-III*) is suitable for children between 30-37 months. Approval was granted by Brookes Publishing for adaptations of the MacArthur-Bates CDI into an electronic checklist using Redcap³ (Harris et al., 2009) for parents to complete online if they chose.

Focus Groups and Interviews

Focus groups (described in detail below) included discussion of EC educators' perceptions of change in children's communication and language skills.

Measurement of Process and Implementation of Learning Language and Loving It™

Focus Groups and Interviews

Focus groups were conducted with EC educators to explore changes in their knowledge and

² Teachstone require that CLASS observers complete an online certification process following training and prior to utilising CLASS observation tools to ensure consistency and reliability in observations. This certification process is repeated annually.

³ Redcap is a secure web application for the distribution and management of online surveys and databases.

practice with respect to the key *Learning Language and Loving It™* strategies, as well as their reflection on the professional learning program and process; and with paired professionals to explore their experiences of delivering *Learning Language and Loving It™* collaboratively and whether the program had changed, or had the potential to change, their collaborative practice across education and health sectors.

Interviews with service level leaders discussed whether *Every Toddler Talking* made any observable change to collaboration and collaborative practice between speech pathologists and ECEC services, and whether new partnerships (suggested or developed) resulted between community health services, and ECEC services. Service level leaders in the Education sector were defined as those who hold a role above or outside of the service being a manager of a number of services that took part in the project. Service level leaders in the Health sector were defined as a manager of a paediatric unit or service.

Focus Groups and interviews were conducted by two members of the evaluation team. They were known to a number of focus group participants as a result of prior research activities in the *Every Toddler Talking* initiative. Protocols for the focus groups and interviews were based on shared professional backgrounds, structured in a way as to allow participants to feel comfortable to openly reflect and discuss their experience, with facilitators taking a non-judgmental, non-expert approach (Liamputtong, 2013).

Post Program Parent Survey

Parents of children who were enrolled in the rooms of EC educators completing the *Learning Language and Loving It™* program were surveyed post-program (November and December 2016). The purpose of this survey was to record their reflections on program participation, and the partnership of their child's EC educators with community health speech pathologists. The questions contained in the post program parent survey, in addition to questions that identified the ECEC service that their child attended, are specified below.

1. Did you receive any information from your child's educators or from the service itself about their participation in *Every Toddler Talking & Learning Language and Loving It?*
2. Have you noticed any changes in the communication between your child's educators and your child since the service has been participating in *Every Toddler Talking & Learning Language and Loving It?*
3. If yes, how has the communication between your child's educators and your child changed?
4. Have you noticed any changes in the communication between your child's educators and yourself since the service has been participating in *Every Toddler Talking & Learning Language and Loving It?*
5. If yes, how has the communication between your child's educators and you changed?
6. Do you have any further comments about *Every Toddler Talking?*

Figure 8: Post Program Parent Survey Questions

Evaluation Procedure

The evaluation of *Every Toddler Talking* is a pre- and post-test design, with data collected at baseline, primary outcome data collected from the intervention and control ECEC services

following the completion of the *Learning Language and Loving It™* program, and secondary outcome data collected from the intervention ECEC services at least 6 months following the professional learning program.

Table 4: Data collection schedule

	Baseline (T1)		Primary Outcome (T2)		Secondary Outcome (T3)	
	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>
Paired professional Survey	✓	x	x	x	x	x
CLASS Observation	✓	✓	✓	✓	✓	x
Child Demographic Survey	✓	✓	✓	✓	✓	x
MacArthur-Bates CDI	✓	✓	✓	✓	✓	x
Post Program Parent Survey	x	x	✓	x	x	x
Interviews & Focus Groups	x	x	x	x	✓	x

Baseline Data Collection (Time Point 1)

EC Educator & Room data

Research assistants trained and certified in using the CLASS tool visited each intervention and control ECEC service infant or toddler room where an EC educator had consented to be observed to complete a CLASS observation (La Paro et al., 2012; Pianta et al., 2008) at baseline. This occurred either before *Learning Language and Loving It™* had begun, or immediately after the first face to face session. Two versions of the CLASS were used: the Pre-K CLASS which was used in toddler rooms and the Toddler CLASS which was used in Infant and Nursery rooms, of which there were fewer. The Pre-K CLASS differentiates between the dimensions of *Language Modelling*, *Quality of Feedback* and *Concept Development* within the *Instructional Support* domain. The Pre-K CLASS was determined to be a tool that would capture the impact of *Learning Language and Loving It™*, and was appropriate to be used in Australian Toddler rooms. The Toddler CLASS *Engaged Support for Learning* domain also includes dimensions of *Language Modelling* and *Quality of Feedback* but also measures *Facilitation of Learning and Development* and was determined to be the most appropriate tool for use in Australia Infant and Nursery rooms.

Each observation was conducted over approximately two hours, and captured Pre-K CLASS data in the domains of *Emotional Support*, *Classroom Organisation* and *Instructional Support* or Toddler CLASS data in the domains of *Emotional and Behavioural Support* and *Engaged Support for Learning*. These baseline CLASS observations occurred during June and July, 2016 (Figure 9).

Child data

Baseline MacArthur-Bates CDI vocabulary data were distributed (June-July 2016) prior to the commencement of the *Learning Language and Loving It™* training for ECEC services in the intervention arm. Where possible at baseline, the MacArthur-Bates CDI and parent survey were completed via REDCap (Harris et al., 2009). The University of Melbourne is a member of a consortium of universities that utilise this web based application. Where respondents did not have access to the internet, or required support with reading and understanding the content, a

paper based copy of the survey was provided. Interpreter support was made available to participants who used a primary language that was not English in order for the data to be obtained with fidelity. No families opted to utilise the interpreter support that was made available, but instead chose to complete the MacArthur-Bates CDI with the support of an EC educator from their child's ECEC service who spoke their primary language.

2016 Primary Outcome Data Collection (Time Point 2)

Early Childhood Educator & Room data

Repeated measures of EC educator practice were collected in the intervention and control ECEC services in November 2016, using the CLASS tool. The purpose of this primary outcome observation was to measure whether any change in EC educator practice and child communication had occurred during the intervention, and to allow comparisons to be made between the intervention and control groups. These data were collected at the end of the year to minimise the risk of participant attrition, both EC educator and child, due to the movement of families and staff that routinely occurs at the end of a calendar year.

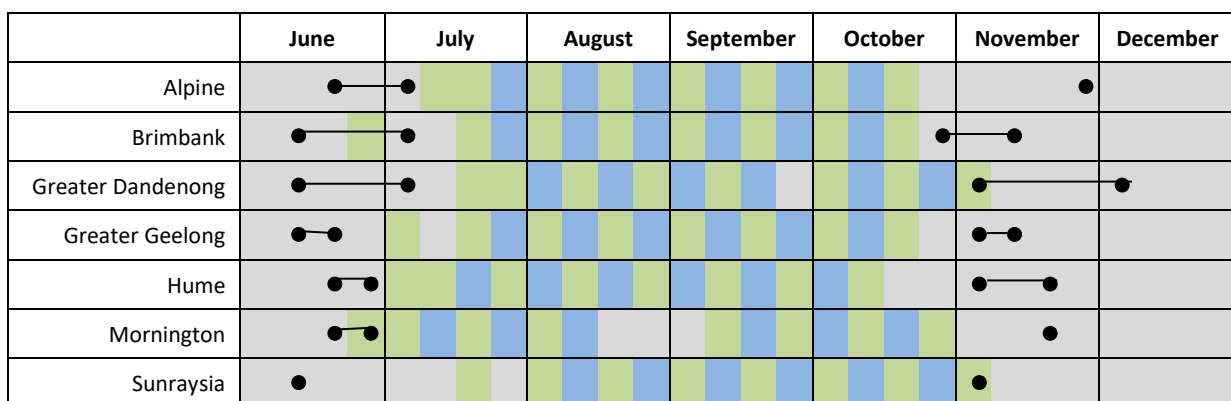


Figure 9: Timing of Baseline (T1) and Outcome 1 (T2) CLASS observations (range indicated in black) in relation to LLLI sessions (indicated in green and blue) by LGA

Child data

The MacArthur-Bates CDI and the child and family demographic survey was re-administered to parents and/or caregivers of children who attended the ECEC services in both the intervention and control groups. The version of the MacArthur-Bates CDI was determined by the child's age at the time of assessment. In response to feedback from families and ECEC services, the MacArthur-Bates CDI was provided only in paper format at this time point.

Process data

The parent post program survey was distributed, as described above.

2017 Secondary Outcome Data Collection (Time Point 3)

Early Childhood Educator & Room data

Repeated measures of EC educator practice were again collected in the 19 ECEC services in the

intervention arm in April 2017, using the CLASS tool. During this round of data collection 27 rooms were observed. In instances where the EC educator had moved into a different room, that room was observed. The purpose of this secondary outcome observation was to measure whether any change in EC educator practice and child communication observed during the primary outcome data collection in November 2016 was sustained 5-6 months later.

Child data

The MacArthur-Bates CDI and the child and family demographic survey were re-distributed in paper format only to the parents and/or caregivers of children who attended the intervention ECEC services, and had previously returned completed MacArthur-Bates CDIs at both baseline and at the end of 2016. The version of the MacArthur-Bates CDI was again determined based on the child's age at the time of assessment.

Process data

Focus groups and interviews were conducted during this secondary outcome data collection phase. Focus groups and interviews were audio- recorded, transcribed verbatim and data managed using NVivo 11 (QSR International Pty, LTD, 2016). An inductive approach was adopted to thematically code the data. Using the framework developed by Braun and Clarke (2006), the following approach to thematic analysis was taken: 1) familiarisation of data; 2) generation of initial codes; 3) search for themes; 4) review; and 5) name and define themes. These five phases were completed for all focus groups and interviews. Codes, categories and themes were consistently and repeatedly discussed between the evaluation team, and discrepancies resolved to ensure the data analysis was revealing the accurate account of the findings.

The results of the evaluation of the *Every Toddler Talking* initiative, including an overview of participant characteristics, and quantitative and qualitative data will be presented in the next chapter.

Findings from the Evaluation of the Every Toddler Talking Initiative

Participant Characteristics

Paired Professionals

As detailed previously, a speech pathologist and an EC educational leader in each LGA were selected to be paired professionals and facilitate the delivery of *Learning Language and Loving It™*. The nominated speech pathologist from a Community Health Service and an EC educational leader from an intervention ECEC service in each LGA, selected by DET, attended *Learning Language and Loving It™* facilitator training in February 2016.

One EC educational leader withdrew from the program following facilitator training, but before the commencement of the intervention. A replacement facilitator, an EC educator from an early childhood intervention service with experience delivering *Learning Language and Loving It™*, was recruited to fill this position. The EC educational leader co-facilitators had an average of 10.7 years' experience within the ECEC sector (range 5 to 22 years). On average, the speech pathologist co-facilitators had a similar amount of experience (10.7 years), although there was greater variability (range 2.5 to 32 years).

Early Childhood Educators

Within the intervention ECEC services, an EC educational leader and three EC educators who work in the same infant and/or toddler room were nominated by their ECEC service to participate in *Learning Language and Loving It™*. In some smaller ECEC services, two EC educators from one room, and a third EC educator from a second room were nominated. These EC educators were subsequently invited to participate in the evaluation. Participation in *Learning Language and Loving It™* required attendance and participation in professional learning over 14 weeks, and included eight group sessions, and six video coaching sessions. The qualifications of these EC educators are specified in Table 5.

Table 5: Early Childhood Educators' Qualifications

	Learning Language and Loving It facilitators	Intervention group (LLLI participants) n (%)	Control group n (%)
Certificate III	.	14 (20%)	35 (32%)
Diploma	2	27 (38%)	59 (54%)
Advanced Diploma	.	3 (4%)	1 (.01%)
Bachelor Degree or higher	5	5 (7%)	2 (.02%)
Not specified	.	21(30%)	13 (12%)
Total	7	71	110

While EC educators who were participating in *Learning Language and Loving It™* were the primary focus of the evaluation, in some instances their colleagues who were not participants were also invited to provide consent for the evaluation. In most cases, these additional EC educators provided relief for EC educators who were on breaks. In other instances, these additional EC educators worked in rooms where only one EC educator was participating in *Learning Language and Loving It™*.

Within the control ECEC services, EC educators from nominated infant and/or toddler rooms were invited to participate in the evaluation. All EC educators provided consent to participate in the evaluation before the baseline data was collected. In total, 110 EC educators from control ECEC services were recruited to the evaluation (see Table 6). The qualifications of these EC educators are also specified in Table 5.

Children and Caregivers

The evaluation team requested that plain language statements and consent forms be distributed by EC educators to parents (and/or caregivers) of all children aged between birth and three years who attend rooms that were participating in the study (for intervention centres, these were the rooms where EC educators were participating in *Learning Language and Loving It™*). The study design aimed to recruit an average of between six to ten children in each room to participate in the *Every Toddler Talking* evaluation.

Table 6: Sample Size: ECEC Service and Participants of *Every Toddler Talking* Evaluation

	Baseline (T1)		Outcome 1 (T2)		Outcome 2 (T3)
	Intervention	Control	Intervention	Control	Intervention
Paired professionals	14	.	14	.	14
ECEC services	19	19	19	19	18
Rooms	26	26	26	25	27
EC Educators (LLLI participants)	71	.	65	.	52
EC educators (non-LLLI participants)	16	110	16		16
Children (consent returned)	217	197	.	.	.
Children (CDI returned)	157	116	84	57	.
Children (valid CDI data)	125	97	72	51	38

Four hundred and fourteen families returned consent forms agreeing to participate in the study (refer to Table 6). Of these families, 273 (65.94%) returned surveys during the baseline data collection, 222 (81.31%) of which were complete and able to be utilised in analyses. A Child and Caregiver Demographic survey was designed specifically for the *Every Toddler Talking* evaluation and was completed along with the Macarthur Bates Communicative Development Inventory (Fenson et al., 2007).

The survey items included demographic information about the children who were participating in this study, for example the age, indigenous status and language background of the children, and their participation and engagement with ECEC services. This survey was completed by parents and/or caregivers either via RedCap (Harris et al., 2009) or in hard copy at Baseline. A shorter version was completed at Outcome 1 and Outcome 2. The distribution of completed

baseline data across the seven LGAs and the intervention and control arms is detailed in Table 7. Analysis of the demographic data provided in the parent survey showed that there were no significant differences between the groups when gender, age, ECEC attendance, age of commencement at an ECEC service or non-English speaking background (NESB) status were considered (refer to Table 8).

Table 7: Distribution of completed child data across the LGAs

	Total	Baseline (T1)		Outcome 1 (T2)		Outcome 2 (T3)
		<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>	<i>Control</i>	<i>Intervention</i>
Alpine	39	13	26	7	18	4
Brimbank	41	25	16	17	9	9
Greater Dandenong	24	11	13	5	8	4
Greater Geelong	34	27	7	15	1	8
Hume	44	24	20	8	11	0
Mornington	31	20	11	16	2	10
Sunraysia	9	5	4	4	2	3
Total	222	125	97	72	51	38

Socioeconomic status was measured using the 2011 Socio Economic Indexes for Areas (SEIFA) data by both the postcode of the ECEC service, and the families' home address. There was a significant difference between the intervention and control groups in the socio-economic status when measured by the location of both the home (Figure 10) and the ECEC centre at baseline.

Table 8: Comparison of intervention and control child participants at T1 and T2.

	Baseline (T1)			2016 Outcome 1 (T2)		
	<i>Intervention Mean (S.D.)</i>	<i>Control Mean (S.D.)</i>	<i>Sig.</i>	<i>Intervention Mean (S.D.)</i>	<i>Control Mean (S.D.)</i>	<i>Sig.</i>
n	125	97		72	51	
Gender (% male)	61.6%	60.8%	$p = 0.907$	61.1%	52.94%	$p = 0.307$
Age (months)	27.7 (4.6)	28.6 (5.3)	$p = 0.170$	31.04 (4.18)	30.78 (4.51)	$p = 0.743$
Days attending ECEC per week	2.92 (1.3)	2.94 (1.31)	$p = 0.924$	3.01 (1.37)	3.08 (1.38)	$p = 0.807$
Main language other than English (%)	15.57%	13.8%	$p = 0.722$	13.3%	14.0%	$p = 0.512$
2011 SEIFA Home Suburb (percentile)	40.73	30.39	$p = 0.013$	38.56 (27.68)	33.34 (19.38)	$p = 0.254$
2011 SEIFA ECEC location (percentile)	41.93	24.53	$p = 0.000$	36.78 (28.69)	25.24 (15.5)	$p = 0.011$

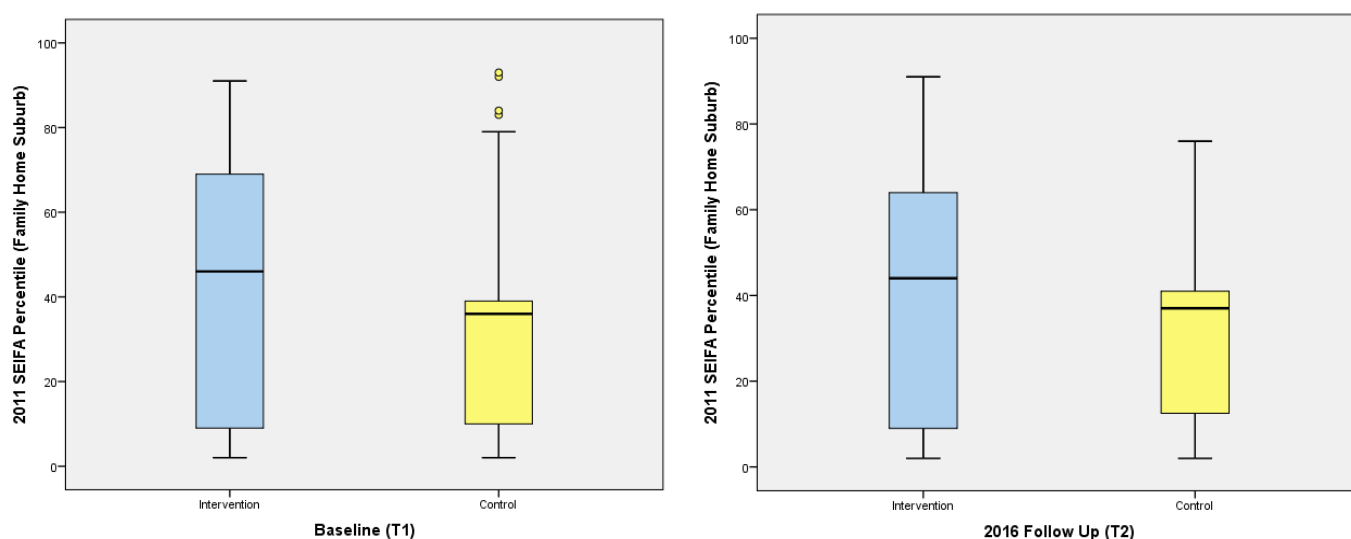


Figure 10: Comparison of SEIFA percentile by family home location

None of the recruited children/parents who returned a survey identified as Aboriginal or Torres Strait Islander. The intervention and control groups were similar in the percentage of children for whom English was not their first language. Of the recruited families, 25% spoke more than one language in their home, with respondents listing 27 different languages that were spoken.

Table 9: Languages spoken other than English

Arabic	Dutch	Italian	Mandarin	Sinhalese	Urdu
Bosnian	Farsi	Japanese	Maori	Tagalog	Vietnamese
Creole	Greek	Lao	Punjabi	Tamil	
Croatian	Hindi	Macedonian	Russian	Thai	
Danish	Irish (Gaelic)	Madi	Serbian	Turkish	

Early Childhood Educator Outcomes

Early Childhood Educator Practice (within ECEC Rooms)

The CLASS subscales were analysed to:

1. describe mean performance of EC educator practice (at room level) on each domain at each time point, that is, baseline (T1), outcome 1 (T2) for intervention and control ECEC services and outcome 2 (T3) for intervention ECEC services;
2. measure difference between the intervention and control group at T1 and T2;
3. measure the change observed within the intervention group between T1, T2, and T3;
4. understand the impact on CLASS domain scores of EC educators' qualification level and number of trained EC educators in a room.

Mean Performance of EC educator Practice by CLASS Domains

CLASS observations were completed in 52 rooms (26 intervention and 26 control) at baseline (T1); 51 rooms (26 intervention and 25 control) at Outcome (T2); and 27 intervention rooms at T3. For the purpose of calculating the difference between T1 and T2, analysis was conducted using the Pre-K CLASS in 39 rooms and the Toddler CLASS in 9 rooms. Three rooms were excluded from the analysis because Toddler CLASS had been used at T1, and Pre-K CLASS at T2. These three rooms were from the control group.

Table 10: Mean Pre-K CLASS domain scores across T1, T2 and T3

		Emotional Support			Classroom Organisation			Instructional Support		
Arm		T1	T2	T3	T1	T2	T3	T1	T2	T3
Intervention	Mean	5.86	5.98	6.42	4.96	4.57	5.04	1.79	2.61	3.04
	N	23	22	20	23	22	20	23	22	20
	Std. Deviation	.51	.72	.44	.69	.80	.59	.49	.68	.80
Control	Mean	5.83	5.52	-	5.03	4.06	-	1.82	1.79	-
	N	17	20		17	20		17	20	
	Std. Deviation	.72	.70	-	1.00	.73	-	.39	.72	-

Table 11: Mean Toddler CLASS domain scores across T1, T2 and T3

		Emotional and Behavioural Support			Engaged Support for Learning		
Arm		T1	T2	T3	T1	T2	T3
Intervention	Mean	5.53	5.79	6.28	2.42	3.24	4.06
	N	4	4	7	4	4	7
	S.D	.75	.56	.58	.61	.71	.66
Control	Mean	5.54	5.24	-	2.54	2.59	-
	N	8	5		8	5	
	S.D	.77	.32	-	.49	.66	-

The means and standard deviations of the CLASS subscales (*Emotional and Behavioural Support* and *Engaged Support for Learning* from the Toddler CLASS tool, and *Emotional Support*, *Classroom Organisation* and *Instructional Support* from the Pre-K CLASS Tool) from the intervention and control groups at each time point are shown in Table 10 and Table 11. Mid to high range scores, all above 5, were observed for Emotional and Behavioural Support in the infant rooms and for Emotional Support in the toddler rooms. Mid-range scores (4–5) were noted for Classroom Organisation in the toddler rooms. Low to mid-range scores were observed for the subscales Engaged Support for Learning and Instructional Support. The highest scores in all domains, with the exception of Emotional Support, were found at Outcome 2 (T3). It should be noted that numbers of observed rooms varied across time, specifically, there were very few infant rooms observed at all-time points.

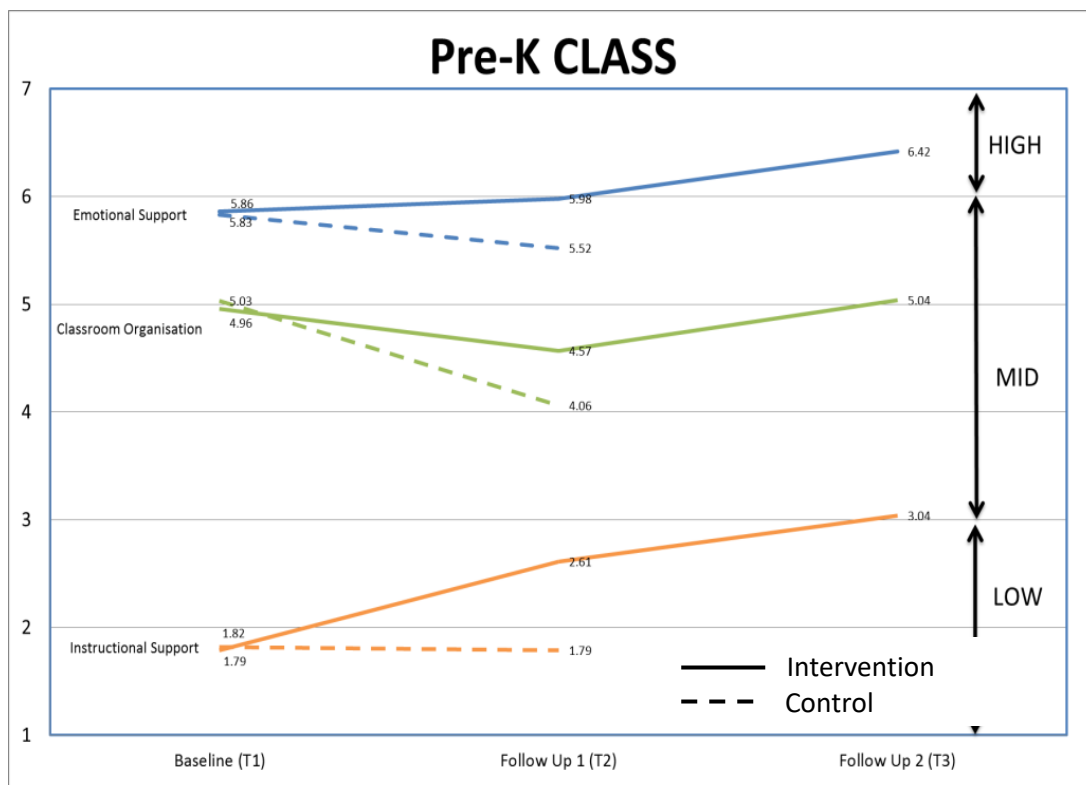


Figure 11: Mean Pre-K CLASS domain scores across T1, T2 and T3

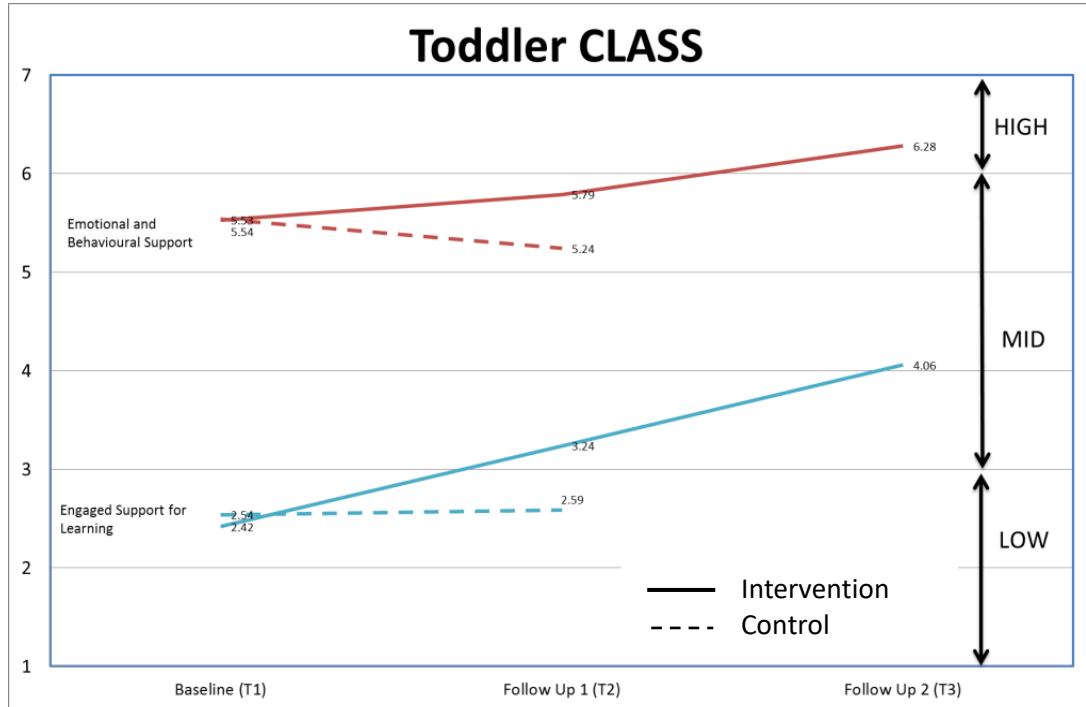


Figure 12: Mean Toddler CLASS domain scores across T1, T2 and T3

Comparison of Mean Performance of EC educators Practice by CLASS Domains at Baseline (T1) and Outcome 1(T2)

Both intervention and control ECEC services were very similar in CLASS Domain scores at baseline (T1) with no significant differences found (all $p > .70$). These T1 comparisons are illustrated in Figure 11.

Within Group CLASS Change Score Descriptions

Figure 13 illustrates that CLASS scores in the infant control rooms did not change significantly between T1 and T2, whereas infant intervention rooms clearly improved between T1 and T2. CLASS scores in toddler control rooms were lower at T2 in comparison to T1, whilst the CLASS scores in intervention rooms did not significantly change for *Emotional Support* and *Classroom Organisation*. However, scores did change significantly for the domain of *Instructional Support* ($p < .01$). These findings indicate that *Learning Language & Loving It™* improved the instructional support (i.e., language strategies) provided to children in intervention rooms for both toddlers and pre-school children immediately after the end of intervention.

Intervention and Control Group CLASS Change Score Comparisons

CLASS Domain scores for toddler rooms were significantly different between intervention and control groups from baseline (T1) to the primary outcome (T2), leading to significantly higher scores in *Emotional Support*, *Classroom Organisation*, and *Instructional Support* in intervention ECEC services compared to control ECEC services ($p < .05$). These results represent significant gains in EC educator practice which are of pedagogical importance as all gain scores were associated with medium to large effect sizes (*Cohen's d* = .64 - 1.14).

Non-significant differences were found in infant rooms for the CLASS Domain scores of *Emotional and Behavioural Support* and *Engaged Support for Learning* at T2. However, differences in gain scores between intervention and control infant rooms were associated with large effect sizes (*Cohen's d* = 1.26 and .96 respectively). These non-significant results in the CLASS scores were most likely due to the small numbers of observations completed in infant rooms across intervention and control ECEC services. The large effect sizes indicate that changes observed in intervention ECEC services compared to control ECEC services were pedagogically meaningful, despite not being statistically significant.

Comparison of Mean Performance of EC educators Practice by CLASS Domains in the Intervention Group between Baseline (T1) and Secondary Outcome (T3)

Figure 14 shows that CLASS scores for *Engaged Support for Learning* and *Emotional and Behavioural Support* in the three Infant rooms observed improved greatly between T1 and T3 (large effect sizes, but non-significant with such a small number). CLASS scores in the Toddler rooms that were observed showed no significant change in *Classroom Organisation* between T1 and T3, but significant improvement for *Emotional Support* and *Instructional Support* ($p < .001$; large effect sizes).

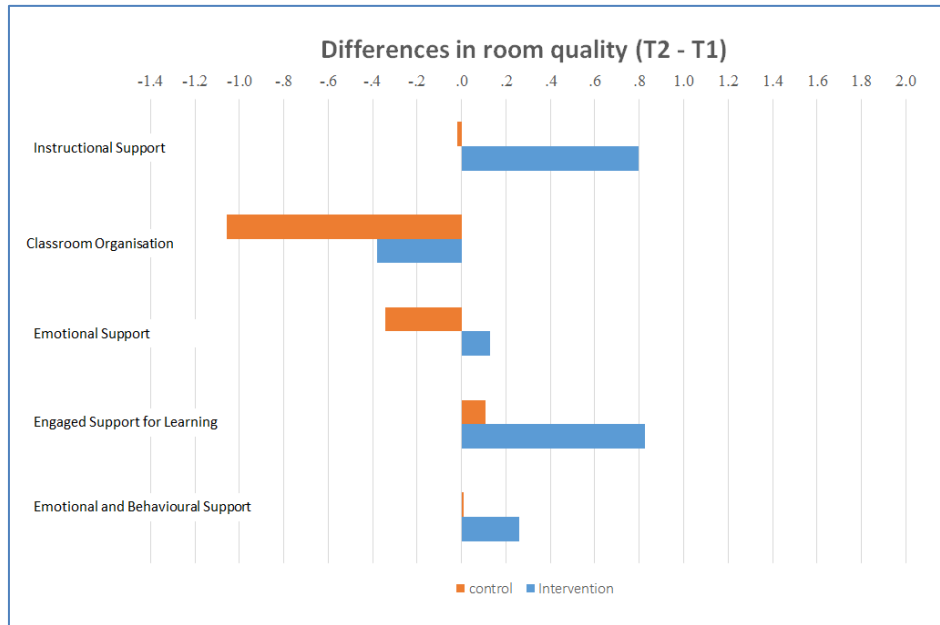


Figure 13: Differences in CLASS Domain Scores (T2 – T1) for intervention and control groups.⁴

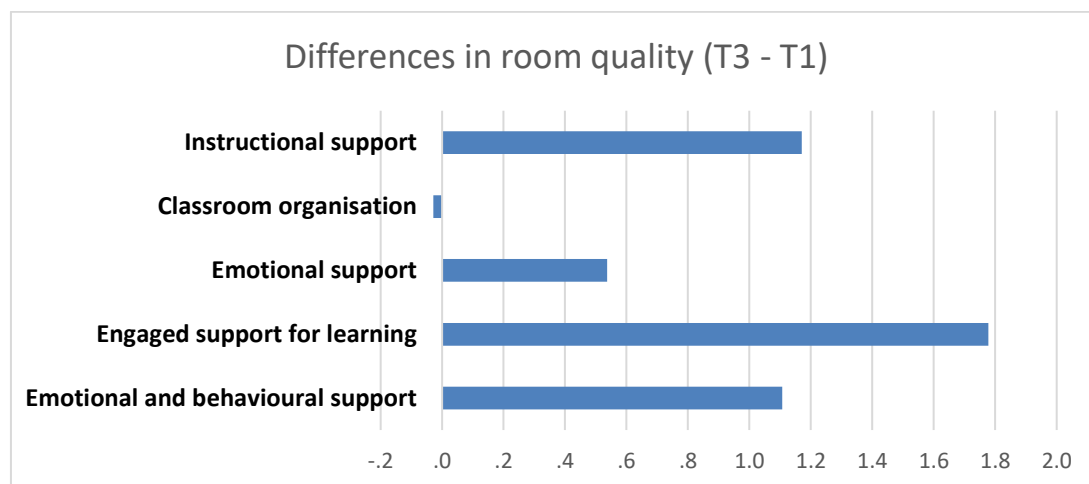


Figure 14: Differences in CLASS Domain scores in the intervention group (T3 – T1)

Educator Qualification, Number of Learning Language and Loving It™ Trained Educators & CLASS Domains

The association between CLASS scores with i) the number of *Learning Language and Loving It™* trained educators in a room and ii) the average education of educators in a room was explored using correlation analysis. Positive correlations were found between CLASS scores and the average education of educators in a room. However, most of these correlations were very small and not significant except for *Classroom Organisation* at T2 ($r = .397, p < .05$).

The number of *Learning Language and Loving It™* trained educators in a room was significantly associated with all CLASS Domains at T2 and similar correlations were found with the difference

⁴ Please note that the total N was small: toddler-CLASS: 4 intervention and 5 control services; PreK-CLASS: 22 intervention and 17 control services.

scores (T2-T1). The correlations for the domains were *Classroom Organisation* ($r = .401, p < .05$), *Emotional Support* ($r = .409, p < .01$) and *Instructional Support* ($r = .571, p < .01$). The association between the number of *Learning Language and Loving It™* trained educators in a room with the CLASS domains at T3 was much weaker and non-significant.

Comparison of CLASS domains in ECEC services where the Educational Leader was a Learning Language and Loving It™ facilitator

The CLASS outcomes for ECEC services who had an educational leader who facilitated the *Learning Language and Loving It™* training was compared to ECEC services who did not have an educational leader who was a facilitator. There were no significant differences between the two groups.

Child Language and Communication Outcomes

The MacArthur-Bates CDI was used to assess the development of children's vocabulary. Analysis utilised the vocabulary percentile scores from the Words and Gestures, Words and Sentences and/or Short Form version of the MacArthur-Bates CDI. Percentile scores range between the 1st percentile and the 99th percentile, and reflect a child's score in relation to other children who are the same age⁵. For example, a vocabulary score on the 35th percentile indicates that the child's vocabulary is larger than those children of the same age who scored between the 1st and 34th percentile, and smaller than those who scored from the 36th percentile to the 99th percentile.

Analysis of the MacArthur-Bates CDI in *Every Toddler Talking* sought to:

1. describe mean vocabulary score (percentile) for children in the intervention and control groups at each time point (baseline (T1), outcome 1 (T2) and outcome 2 (T3));
2. measure difference between the intervention and control group at T1 and T2;
3. measure the change observed within the intervention group between T1, T2, and T3

Mean Vocabulary Performance of Children

Vocabulary percentile scores were available for 222 children across both groups at baseline (T1), 125 in the intervention group and 97 in the control group. At outcome 1 (T2) there were 123 valid vocabulary percentile scores (72 in the intervention and 51 in the control group) and by outcome 2 (T3) 38 children in the intervention group had vocabulary scores.

Figure 15 shows the comparison of vocabulary percentile scores for all children in the intervention and in the control group for the baseline and for all children in both groups for outcome 1; and for outcome 2 for all the children in the intervention group. Both groups were similar at baseline (T1) and outcome 1(T2), and there was significant variability in percentile

⁵ It is important to note that vocabulary growth over time is required if a child is going to maintain the same percentile score. For example, a vocabulary of 52 words at 16 months would place a child within the 50th percentile, whereas at 24 months, a vocabulary of 297 words is required to be placed on the 50th percentile. A percentile score that reduces between two time points does not necessarily indicate that a child's vocabulary has become smaller; it indicates that growth has been at a rate slower than average. To achieve an increase in percentile scores, a child's vocabulary is required to develop at an accelerated rate, compared to what is average for children of the same age.

scores between individual children in the same group and across groups. In addition, children in the intervention group did not differ significantly in their vocabulary percentile scores across baseline (T1) to outcome 2 (T3).

Vocabulary scores were then considered for children who had valid scores at both baseline (T1) and outcome 1 (T2). This group consisted of 76 children in the intervention group and 57 children in the control group.

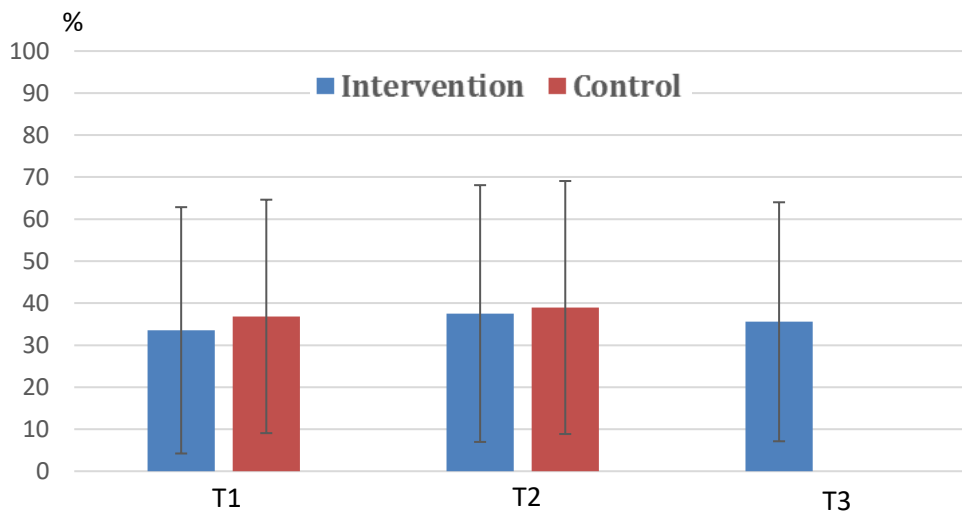


Figure 15: Vocabulary percentile scores (and standard deviations) for both groups ⁶

Children in the intervention group gained on average more than 1 vocabulary percentile score between baseline (T1) and outcome 1 (T2), whereas children in the control group had percentile scores on average that were 4 percentile points lower across the same period. These differences in vocabulary percentile scores were not significant for either group and the effect size associated with the change was small (*Cohen's d* = .23).

Comparison of Mean Vocabulary Performance of Children at Baseline (T1) and Outcome 1 (T2)

Differences in the vocabulary percentile scores of children (from T1 to T2) were compared between the groups, taking into account a set of variables known to influence child developmental progress (i.e., child age, gender, main language spoken at home, number of average days of ECEC attendance across the study period, and socioeconomic status of the home address). Analysis of Covariance (ANCOVA) was conducted for this analysis. The different development across intervention and control groups was not statistically significant ($F(1,124) = 2.53; p > .05$). A small effect size in favour of the intervention group was found, but was not statistically significant in attributing the professional learning intervention with the vocabulary gain in children.

⁶ Represents children with valid percentile scores at baseline assessment (intervention group: $N = 129$; control group $N = 105$), at follow-up assessment 1 (t2; intervention group: $N = 83$; control group $N = 57$), and at follow-up assessment 2 (t3; intervention group: $N = 51$).

Children who speak a first language other than English

Parents and caregivers were asked to report on their child's vocabulary across all languages that were spoken. Children who spoke a language other than English as their first language had vocabularies that were smaller than their peers who spoke English as a first language in both the control and intervention groups at baseline. Children whose first language was a language other than English who attended an intervention centre, gained an average of 7 percentile points in their vocabulary size between the baseline assessment (T1), and the end of 2016 (T2). This was a small group of children (n = 13), and there was a high level of variability in vocabulary growth.

Implementation Processes of Learning Language and Loving It™

Attendance at Professional Learning and Staff Changes

74 EC educators agreed to participate in the *Learning Language and Loving It™* training. Three educators resigned from their position or withdrew from the program either before or immediately after the first *Learning Language and Loving It™* session. The remaining 71 EC educators attended an average of seven of the eight face-to-face sessions, and five of the six scheduled video sessions. Eight EC educators who participated were educational leaders within their ECEC service, and reported that they worked predominantly in Kindergarten rooms.

Between July 2016 and April 2017, 15 of the 71 educators (21%) who participated in *Learning Language and Loving It™* resigned from their positions, or did not have their contracts renewed. By April 2017, a further four educators were on maternity or other extended leave. Five educators moved into rooms that catered for older children (3 to 5 years of age) in 2017. As a result, by the completion of the evaluation of *Every Toddler Talking* in mid-2017, only 39 (54%) of the EC educators who participated in *Learning Language and Loving It™* were still working in toddler rooms.

Parent Survey following Early Childhood Educator Professional Learning

Seventy-four parent/caregivers from the original consented intervention sample of 157 completed the Parent Survey in late November, after the delivery of *Learning Language and Loving It™* was completed. The survey was distributed via SMS text message and/or email with a link to Survey Monkey. Survey Monkey is an online survey development and distribution service. Forty-four (59.4%) parents recalled receiving communication from their child's educators about *Every Toddler Talking*. Twenty-three (31.1%) respondents reported noting a change in the way that their child's EC educator communicated with their child, with parents commenting that communication was more purposeful, clearer, with more simple and descriptive language. Forty (54%) stated that they had not noticed a difference, with many commenting that they do not have an opportunity to observe the EC educator interacting with their child. Eleven respondents (14.8%) did not respond to the question.

When asked if they had noticed a difference in how the staff at the centre communicated with parents, eight parents (10.8%) reported that they had, commenting that the educators were more likely to make specific comments about their child's communication. Fifty-four (72.9%) parents responded that no, they had not noticed a change, and 12 (16.2%) respondents did not answer the question.

Parents were given the opportunity to make further comments or offer feedback. Some parents commented on how pleased they were that their child's ECEC had had the opportunity to participate in an initiative like *Every Toddler Talking*, commenting that *"I have noticed a significant improvement in my child's vocabulary and use of language during this period"* and *"It is very helpful to know that the childcare centres are taking the initiative to become educated in this very important area."*

Resource Utilisation

Data on the utilisation of resources by ECEC services, EC educators and speech pathologists participating in *Every Toddler Talking* were collected by the DET project team. These are summarised below. It should be noted that this pilot evaluation incurred substantial additional costs associated with data collection and evaluation. These additional costs are not represented in Table 12, Table 13 & Table 14 below.

Table 12: Staff Hours required to undertake Training in Learning Language and Loving It

Activity	Number of sessions	Hours per session	Total
Face to face professional development	8	2	16
Video coaching sessions- per EC educator	6	1	6
Hours total per EC educator participant			22

Table 13: Staff Hours required to undertake facilitator training in Learning Language and Loving It

Activity	Number of sessions	Hours per session	Total
Pre-workshop Assignment	self-paced		7
Facilitator Training	3	7.6	22.8
Hours total per facilitator			29.8

Table 14: Staff Hours required to facilitate Learning Language and Loving It workshops

Activity	Number of sessions	Hours per session	Total
Preparation			8
Facilitating face to face sessions	8	2	16
Hours total per facilitator			24
Conducting video coaching sessions – per EC educator participant	6	1	6
Total video sessions dependant on number of participants			<i>variable</i>

Focus Groups and Interviews

As described earlier in this report, a series of focus groups and individual interviews were conducted in April and early June 2017 with participants in *Every Toddler Talking*. These participants included EC educators, the paired professionals, ECEC service directors and service level leaders. Focus groups ranged from 15 to 56 minutes duration, and interviews from 11 to 45 minutes duration.

Table 15: Interview and Focus Group participants

Participant type	Participated in focus group	Participated in individual interview	Provided written responses to questions
EC educator facilitators	2	3	1
Speech pathologist facilitators	5	1	1
EC educator participants in LLLI	43	3	.
ECEC service directors	.	9	.
Education service level leaders	.	3	.
Community health service level leaders	.	2	.

All participants (with the exception of the ECEC service directors and service level leaders) were provided with backfill to attend the focus group allowing for quality time to share their thoughts and experiences. The following ideas, perspectives and reflections emerged during these discussions (Figure 16). The concepts listed in (Figure 16) are discussed and described in detail below.

1. Shared facilitation of *Learning Language and Loving It™*
2. The impact of video coaching
3. EC educators' practice change
4. Supporting all children to become communicators
5. Inter-professional relationships between EC educators and speech pathologists
6. Intra-professional relationships between EC educators
7. EC educators' professional identity
8. EC educators' knowledge of child communication and language
9. The ongoing responsibilities of educational leaders
10. The time and cost of participating in professional learning

Figure 16: Emergent concepts from focus groups and interviews

Shared Facilitation

The facilitation of *Learning Language and Loving It™* by both a speech pathologist and an educational leader in each location was perceived by participants and service leadership and management to be a crucial and highly valuable aspect of the *Every Toddler Talking* initiative. The paired professionals (educational leaders and speech pathologists) brought different but complimentary skills and knowledge to their facilitation of *Learning Language and Loving It™*, and worked together to deliver the training that was relevant to the local community context.

In some instances, educational leaders and speech pathologists had different expectations entering into the *Every Toddler Talking* initiative, and these were navigated throughout the course of the intervention. Three resulting factors arose as participants reflected on shared facilitation: (i) the importance of a common language when discussing children's communication, (ii) delivering *Learning Language and Loving It™* presented learning opportunities for the paired professionals, and (iii) speech pathologists and educational leaders were both aware of professional knowledge, strengths and limitations.

i. Common language is needed when discussing children's communication

It was reported by the majority of the educational leaders, who co-facilitated *Learning Language and Loving It™* that they played a critical role in reframing the language, strategies and recommendations presented by speech pathologists. This idea was supported and reiterated by a small number of EC educator participants and one ECEC service director. By repeating, rephrasing or adding to the speech pathologists' explanations, educational leaders endeavored to ensure that all EC educator participants were able to understand the concepts being introduced, and could integrate their new knowledge with their existing pedagogical knowledge.

"The language is a little bit different and that was a bit tricky initially and I think it's good that the educational leader was there so we could level that out, bring both languages together."

EC educator facilitator quote 1

The following perspective was a shared view by a Director who also participated in a small number of training sessions.

"You do need to have someone with that background knowledge of a child care centre to give that perspective to the group. The [speech pathologist] would say something and then clarify with the teacher. The [speech pathologist]'s knowledge of the child care centre was not great so for her to have that was good. You could see that they were working together. "

ECEC Director quote 1

One EC educator co-facilitator highlighted the knowledge she and her colleagues have of pedagogy, other areas of child development, the VEYLDF and room level practice, and that this professional knowledge supported the speech pathologist.

"Because we had a few points where [the speech pathologist] went, "Yeah, but you just do this and this and this." Yes, but in practise in an early childhood setting that's not going to work or you need this or you need that or we have something to add there as well. I think it became quite clear that I do have a role in that. Not that it's more important, but it's as valuable at a different level and at an on-going level."

EC educator facilitator quote 2

The view that common language between educators and speech pathologists when discussing

children's communication is important was also echoed by two Community Health Service Level Leaders, who both spoke about the barrier that discipline specific terminology can create, limiting collaboration and understanding between professionals

"I like the idea of Every Toddler Talking doing the joint delivery of the programme together, because I think then you can get that nuanced language a little bit better."

Community Health Service Manager quote 1

"We really need to look a little bit more at the National Quality Framework, and to be respectful in the language that teachers and educators use. We can use the same words in allied health to mean different things and also different words to mean the same things and I think we need to get better at using the same language"

Community Health Service Manager quote 2

ii. **Delivering Learning Language and Loving It™ presented learning opportunities for the paired professionals**

All EC educator co-facilitators reported that they initially felt aware of some limitations in their knowledge of children's communication and language development, and stated they were continuing to learn more about language and communication alongside their peers who were participating in *Learning Language and Loving It™*.

"She (the speech pathologist) had the knowledge about the difference about speech and language so when the girls would talk about more speech than language, she had that knowledge behind her to explain the difference. When it came to things about the children and their development. I would be able to deliver that rather than when it was about the technicalities behind their speech and language."

EC educator facilitator quote 3

iii. **Speech pathologists and educators are both aware of professional knowledge, strengths and limitations**

All speech pathologists reported that they felt they had a relatively higher level of content knowledge in relation to the language content of *Learning Language and Loving It™*. One speech pathologist then went on to state that without her presence in the training, she had the perception that the Educators would not have learnt as much as they did. During the focus group, other speech pathologists showed their agreement with this statement.

"Even though we were co-facilitators, I often had to go back and actually re-teach for the bit she hadn't understood. Or if she said something when we were presenting, I was like, okay, that's right or, I would kind of talk over the top of her to get it right with the [speech pathology] bits."

Speech pathologist facilitator quote 1

"I guess it's the knowledge of the content, so you could run the programme without the educators, although it was beneficial to have them, but not having someone that really knows all that [speech pathology specific] stuff, would be a [challenge]."

Speech pathologist facilitator quote 2

Community Health Service Leaders, and one speech pathologist spoke about consciously trying not to play a dominant, "expert" role alongside their educational leader co-facilitator.

"We've been doing a lot of work at [Community Health Service] around client directed care plans, but the principles of that is to work from the strengths of the client, in this case the strength of the [educators]. I think that staff are really very aware of being on an equal footing with the [educators] and not being the expert, I suppose, and making sure that those relationships are on a more level ground in order to have the ideas and the concepts accepted."

Community Health Service Manager quote 3

"That initial nervousness in the room of educators feeling like the speech pathologists would come over the top as professionals"

Speech pathologist facilitator quote 3

One speech pathologist highlighted her surprise that EC educators were not using evidence based practice, or best practice guidelines for language and communication development in children. The majority of speech pathologists attending the focus group agreed with this statement.

"I thought that they would all, from a language perspective, be learning best practise, but they weren't. "

Speech pathologist facilitator quote 4

As highlighted earlier, many EC educators reported that although the speech pathologists had a high level of knowledge about language and communication, they had limited knowledge of pedagogy, and the practicalities of working within an ECEC context.

"She did say that it was really good from her point of view. Because she [the speech pathologist] had this idea of what you should do with children to help develop their speech and language, is this, and then she came and spent time in a child care centre, and went, oh, you guys need some different strategies to use here."

EC educator quote 1

A small number of speech pathologists also stated they assumed all EC educators would have had a deeper level of knowledge of child language development from their initial training, as well as an awareness of research and evidence.

"I think I had a different, a higher expectation of the level of education and enthusiasm and time to spend on thinking about it all. And [EC educator Co-Facilitator] did a little bit of managing my expectations."

Speech pathologist facilitator quote 5

Two directors reported that the speech pathologist's knowledge of how ECEC services operated sometimes caused difficulties when negotiating visit times and scheduling, but in most instances, through the development of mutual trust and respectful relationships, an understanding of how to work in partnership developed.

The impact of video coaching

When asked about a specific aspect of *Learning Language and Loving It™* that influenced or impacted upon the EC educators, the vast majority of participants spoke about the powerful impact of watching their own practice on video. This was confirmed by the ECEC service directors, who largely felt that this was the key instrument of change. While videoing was initially overwhelming for most Educators, it became less intimidating over the course of the intervention. A small number of Educators reported that watching their practice on video was affirming.

"I didn't realise how I was reacting and how I was speaking. So that was really beneficial, because, you know, you think you're saying it right, you think you're doing the right thing but until you see it you can't fully understand what the impact is. So I think that that was very beneficial, the videoing."

EC educator quote 2

"It's like that quote 'Tell me I'll forget, show me I'll remember, teach me I'll learn'. So you can hear something and try and relay it, and not get that effectiveness. But when you've actually learnt it, you can relay it and embed it. I think that was a huge difference to what it was, it wasn't just something we were told. And by being videoed, you're pushed out of your comfort zone, and held accountable."

EC educator quote 3

The video sessions called for a scripted action plan to be completed before the coaching session. This action plan described planned activities and interactions, and thoughtful reflection on a strategy that had been learnt in a *Learning Language and Loving It™* group session, and created an opportunity for the educational leader or speech pathologist to clearly observe this strategy in action. Many EC educators had difficulty with this expectation, and reported that they felt this was too structured or rigid.

"That's not possible in childcare. I can't tell you for certain, a certain child is gonna sit with me at the play-dough table and this is the discussion that we're gonna have. Because we follow their lead. So, it was really forced and unnatural"

EC educator quote 4

Some Educators stated that in their normal practice, they follow the child's lead, and would not normally be so structured with the children. A number of EC educators reported that being required to write a script about what they were going to say and what they expected the child to say was extremely difficult.

EC educator 1: *"There were so many opportunities too, where I thought, we should have filmed this scenario. This is more natural, it's not something we've planned. Because we did have to make our own script, and design what kids were going to be playing, to follow, a design type thing."*

EC educator 2: *"Which is not really the way we do things, we are far more spontaneous."*

EC educator quote 5

Practice change

The majority of EC educators who participated in *Learning Language and Loving It™* spoke at length about how the program had changed their practice when working with children. However, when EC educators were first asked to describe or specify particular strategies from the program that had impacted upon their practice change, many participants did not seem to be able to recall or articulate the strategies, or describe what they were doing differently.

"You get down and ... Not ask open ended questions type thing, and that was hard."

EC educator quote 6

With some prompting, many EC educators were able to recall the OWL⁷ strategy, and stated that it is the strategy they use the most.

"See I found OWL for me in particular, I used to watch and see something and then I would think I would see where it was going to go, and I'd go to stop it, but now I let things play their course, and I watch and I wait, and then I go, oh, okay, they went a totally different way to what I would have thought. Before I act I actually observe."

EC educator quote 7

Understanding the 'communication style' of the child was another strategy or skill from *Learning Language and Loving It™* that EC educators reported had influenced their practice.

⁷ The OWL strategy reminds EC educators to support children to lead, encouraging the EC educator to **Observe**, **Wait**, and **Listen** to the child/ren (Weitzman & Greenberg, 2002).

"From this experience I found that certain topics were useful such as what type of communication style children were and how to SSCAN⁸ and how to OWL and that small (groups) is best and how to expand and extend children's language. "

EC educator quote 8

Other EC educators spoke about using their new knowledge and skills to become more intentional with their interactions with children. As part of this increased intentionality, some EC educators reflected that they now felt they were able to influence children's development to a greater extent.

"[Learning Language and Loving It™] helped us as educators to find where our role leads with the children, in supporting their learning and development."

EC educator quote 9

From the perspective of many ECEC service Directors, a change in the EC educators' practice at the ECEC service was evident.

"The [educators] have really stepped up in creating nice play spaces, inviting play spaces for the children. They are down at the children's level and they are having those conversations. I feel as though before this programme they were standing back like supervisors, like soldiers, but now they're really interacting with the children and they've put those enriched interactions and there is a learning that's coming from that. It's been amazing for the children as well."

ECEC Director quote 2

"They're using language a lot more. Just hearing the conversations between educators and between educators and children. All the time the conversation is a language that's repeating things that, explanations. And it's not just well done now, it's extended and it's really good. It's been really beneficial. "

ECEC Director quote 3

"So it's not just a two word conversation it's actually extended and even for children that can't verbalise the educators are using language a lot more. That's not just a silent transition or a silent routine. They're actually talking and using language, basic language, and that's perfect."

ECEC Director quote 4

A director also reported that other people in their community had noticed changed practice.

"(When) other people that come into the centre it's the first thing they notice – "How great are your interactions with children!" You can actually see that there is

⁸SSCAN prompts educators to support young children to participate in small groups by remembering *Small groups are best, Set up an appropriate activity, Carefully observe each child's level of participation and interaction, Adapt your response to each child's needs, and Now keep it going* (Weitzman & Greenberg, 2002).

no one running around, they are all down talking to children. You are setting them up to lead their learning rather than the other way we've previously done.

Parents are saying "I love their interactions", I love the way they speak to the children". No one yells or raises their voice. It's all very calm and empowers the children. You can definitely see that the support and the training has helped."

ECEC Director quote 5

Participation in *Learning Language and Loving It™* has highlighted for both relatively new and experienced Educators how they can utilise their new knowledge to design the learning environment to support children's language and communication development. By putting this new knowledge into action, EC educators described the benefits for the children in their care. Some EC educators identified that by creating more thoughtful learning environments, they were fostering children to be effective communicators and supporting their sense of identity and wellbeing.

"We had one little girl, who was just so shy all the time, she would play next to the other kids, completely in her own zone. You always naturally you think, let's see if we can find a friend who is like you. But using this programme, you become a bit more aware of what will actually benefit the children. So rather than putting her with other shy children, we were able to plan ahead. If you look at her now, you wouldn't know she was the same girl from last year. She's running around the room, laughing and giggling. And it's just so nice hearing that she does have a voice."

EC educator quote 10

"It's confidence, I suppose. We're zoning in on how we can allow the children to become confident in the room, and be a part of belonging. That's our goal. So we look at ways then, how are we going to allow them to become in the room."

EC educator quote 11

Supporting all children to become capable communicators

Educators also spoke about how their participation in *Every Toddler Talking* helped them to focus on children who were less confident or less capable communicators.

"I loved doing the training, to be honest, and I found it really useful. It's made me more aware of children that fly under the radar. I thought I really benefited from that aspect of it because I felt that I was focusing more on the loud children, and not so much the more quiet children."

EC educator quote 12

"We had a bilingual little boy who came to us with no English whatsoever. And mum and dad are just in absolute awe of how he talks now, and you can have a

conversation with him, and he'll come in the mornings and go, oh look! And he's showing us his tee shirt and it's just amazing. "

EC educator quote 13

From the perspective of some focus group participants, EC educators now have stronger relationships with children and families. These strengthened relationships included richer professional conversations with parents about their child's language and communication development.

"Parents have really noticed the difference (in their children's) language, but also in their confidence and the bond that they established with their educators. We do have more enriched bonds. There were some children that just did not want to come here and through this programme it seems like it's been easier for the families to get their children here. We've risen (sic) the bar and families are happier as well and they get involved in the enrolment process as well."

ECEC Director quote 6

Inter-professional relationships

Nearly all focus group and interview participants discussed the nature and importance of the inter-professional collaborative relationships that emerged as a result of participation in *Every Toddler Talking*. In addition to describing the nature of these relationships, three key outcomes of these inter-professional relationships were described: (i) Increased understanding of community health services by EC educators, (ii) the benefits of this relationship for children and families who are engaged with community health services, and (iii) the increased accessibility of community health services as a result of these relationships.

Despite some challenges in communication and expectations, EC educators, ECEC service directors and service level leaders highly valued the relationships that were established with the speech pathologists, and in many instances described these relationships as respectful and trusting.

"Even though the research is over [speech pathologist] is still calling, how things going with the girls? What are you doing? She's just been really lovely and wants to keep in the loop and what not as well. It's been really good."

EC educator facilitator quote 4

"I think it's when you have a connection, when a child comes up that you think, "Okay, this isn't working," or "What else can we do?". That person would be your port of call going, "Can you just come and have a look or listen?" or, "Can you pop in for a visit or provide me some information?"."

EC educator quote 14

This type of relationship was evident to some extent in all but one ECEC service, where the level of complex internal issues was far too high to support the requirements of the project by staff. This ECEC service is described in case study three.

ECEC services gaining insight into how Community Health services work

Educators reported that through working closely with a speech pathologist, they learnt more about the community health services that were available, and how to refer children and families to services.

"Through our sessions, she explained to us I suppose, in a lot more depth, which I didn't know, a lot of what [Community Health Service] did. So that certainly opened up my eyes to what they did and she sort of, you know, to help us ... How we can refer and whatnot. So, I mean, that was sort of certainly a part I didn't understand before we had [speech pathologist]."

EC educator quote 15

A speech pathologist also reported that she felt the community health service that she worked for was now more accessible to the ECEC services.

"I think it's made our service far more approachable, so rather than ... how do I do the referral forms, or what do I tell the person at intake, ...I'll just give [myself] a call, or I'll just give [my] team a call, or I'll just when she pops around next time I'll do this, and ask her these questions. I think that's definitely happened, and I think I feel very comfortable at those centres now, so I can come back to them as well with ideas or I can pop in for a visit."

Speech pathologist facilitator quote 6

A majority of the EC educators now feel they have the language and knowledge to initiate discussions with other allied health professionals who enter their service for children.

"We [EC Educator and visiting Allied Health Professional] just had a conversation about how far she had come in that short amount of time that they were here last. I don't think I would have had that conversation if I didn't know [the speech pathologist]. I think, before doing Learning Language and Loving It, [I] was very sheltered in what [speech pathologists] did and their strategies and stuff like that. But now, I think, working in partnership with [the speech pathologist], know a lot more. So I feel a little more confident talking to the two girls that came in for [child]."

EC educator facilitator quote 5

Benefit to children and families engaged with Community Health Service

Many participants reported that the development of mutually respectful professional relationships between the EC educators and the speech pathologists saw the growing benefit to children and their families who had been referred to community health speech pathology services. For some ECEC services, it appeared this was unexpected.

"(I'll receive) the report back from [speech pathologist], and I'll say, "What's going on with that. I don't believe that is all". And she explained to me why it was written that way. And I was like, "Oh, yeah. Okay, yep." I wouldn't have (called her

before)... because I hadn't met her before, I probably wouldn't have like rang up and said, "What's going on with this?" Whereas, I feel quite comfortable with that now."

EC educator quote 16

Educators in some ECEC services described a three way trusting relationship between themselves, families and the speech pathologist. In particular EC educators noted how their trust in the speech pathologist, combined with the trusting relationship they had with the family, supported them to help advocate for, and further support the child and their family.

"We found that because a lot of our families have a lot of trust issues. We've dealt with child protection and all that sort of stuff. We've actually found that in some cases, where they weren't turning up to their appointments and things like that, we said, "Oh. Look, we know we're doing our training with [the speech pathologist], she's so good. And one family actually then started to turn up. And then, even though they didn't turn up to their things, [the speech pathologist] could bring us in, and we'd like, "Oh. So, you missed your appointment. [The speech pathologist] said she'd made you another one." They [the family] know that we're actually communicating."

EC educator quote 17

In some locations, the speech pathologist that facilitated *Learning Language and Loving It™* was not the speech pathologist who delivered individual community health services to children in the local area. In these instances, a strengthened relationship for children engaged with community health speech pathology services was not reported.

Increasing Accessibility of Community Health Services

While this was not an intended outcome of the *Every Toddler Talking* initiative, Community Health Service Managers saw one of the key outcomes of increased collaboration with ECEC services as the impact upon the timing and specificity of referrals.

"I don't know that such a programme is going to diminish the referral rate, but I think it will enhance the delivery of the service to the children and increase the educators understanding of when to refer."

Community Health Service Manager quote 4

In addition to increasing the accessibility of ECEC services, *Every Toddler Talking* has impacted upon the accessibility of Community Health Services.

"We know, that even from a clinical perspective that some of the children, that some of the families struggle to attend our services. Particularly where they have complex family situations or complex domestic issues at home. For us to be dealing now with routine clinical practise with individual clients, we will try to up skill out the services involved with the child anyway. "

Community Health Service Manager quote 5

Participating in *Every Toddler Talking* had helped Community Health Services to consider potential options for reducing barriers for families who have difficulties accessing services.

"...making it as easy as possible for families to be able to access a service, and that might be that we relocate our services out of that building and into the community. Where ever those families might be."

Community Health Service Manager quote 6

Intra professional relationships

In addition to establishing collaborative relationships with speech pathologists and community health services, participating in *Every Toddler Talking* provided an opportunity for EC educators and ECEC services to work closely with other services in their local areas. In some instances, ECEC services already had established relationships with other ECEC services, but in many instances this was not the case.

The intra professional relationships that resulted were highly valued and considered to be beneficial in supporting EC educators to affirm or improve their practice. Educators reported that they were not often afforded the opportunity to 'leave the room' to network with their peers. Participating in *Every Toddler Talking* helped create a sense of belonging to the wider profession, and increased the EC educator's enthusiasm to develop their professional skills and knowledge.

"[Being a part of Every Toddler Talking] was validating and it's having the opportunity to reflect and ask what would you do? "

EC educator quote 18

A small number of EC educators also spoke about becoming more informed about their own community, through sharing information with other ECEC services, with a majority of participants affirming this statement.

"Hearing a lot of people's ideas and suggestions and sometimes it's just going, "Okay, yeah, well I am on the right path"."

EC educator quote 19

"It was a good experience. Yeah, cause you get to hear a lot of how things happen in other centres. With the videoing you actually see the other centres and it was good. To discuss as well. It's one on one talking. You can discuss your experience like, how does this work in your centre? And they can suggest you too, like in my centre we do this way."

EC educator quote 20

However, positive intra-professional relationships were not always established. One Director acknowledged different philosophies do not always lead to establishing good collaborative relationships:

"We're very enthusiastic about it [but] there was another centre that wasn't. I'm not sure that they established a bond between the centres... as a group of people from different walks of life and different centres and different services that had different practices."

ECEC Director quote 7

Professional identity

When discussing *Learning Language and Loving It™*, almost all EC educators and facilitators spoke about changing and strengthening professional identities and self-perception. As described above, speech pathologists presented a strong professional identity and self-assuredness, and talked about their experience of beginning the *Every Toddler Talking* initiative with strong content knowledge in regards to children's language and communication development. Some speech pathologists had several years' experience in delivering professional learning, including *Learning Language and Loving It™* and other Hanen Centre programs.

"We probably have more experience with using Hanen resources, more experience with the setup of presenting potentially a lot more confidence."

Speech pathologist facilitator quote 7

Throughout the course of the *Learning Language and Loving It™* intervention, most EC educators (both facilitators and Educators) reported that their professional knowledge and confidence grew. The combination of collaboration, networking, gaining knowledge of language and communication and a realisation of the impact they can have on children's learning increased their own sense of professional identity.

"(For the first time)...I thought I was the professional."

ECEC Director quote 8

"You know, a lot of people really believe that child care is just baby sitting. It's a friendly place to leave you children and they just don't realise the depth and the opportunities for learning that are available to them in long day care."

ECEC Director quote 9

A speech pathologist also described observing this growth and strengthening of professional identity in her co-facilitator.

"I sort of felt like I was able to take on a lead clinician role, very much as an equal, but to feel confident that she could develop her skills as she was going, because she hadn't run a programme like that before, and just providing words of encouragement, and reinforcement for how well she does speak, again it wasn't about her competence, it was about her confidence."

Speech pathologist facilitator quote 8

Knowledge

EC educators who participated in *Learning Language and Loving It™*, as well as the facilitators, and ECEC service Directors and sector leaders, spoke about the need for addressing the limitations in EC educators knowledge about communication, language and early literacy development across the ECEC sector. This discussion included the limitations in curriculum and expectations of Certificate III and Diploma level training.

Educators, and ECEC service Directors and service level leaders consistently spoke about how participating in *Every Toddler Talking* and completing *Learning Language and Loving It™* highlighted that there is a need for a higher standard of knowledge about children's communication and language development in training for both initial and in-service EC educators. Some EC educators made spoke about the requirements for Certificate III qualifications.

"We've never once been offered training in language development. Not once. Bachelor, diplomas, and many, many, professional developments through work, and not one that comes anywhere near this. Not one on language."

EC educator quote 21

A speech pathologist made a similar observation.

"I didn't realise how little exposure educators have to information about speech and language acquisition and how language development can be supported. I see providing ongoing support as an important, ongoing role."

Speech pathologist facilitator quote 9

With the knowledge acquired through *Learning Language and Loving It™*, most EC educators reported feeling empowered in their work with children, and an ability to support referrals that they made to community health speech pathologists:

"One of the biggest referrals that we suggest is (for) language. And that's where the biggest need is for children, I think. We're the ones in early education and we're the ones without an ability to be able to help move that along. We can stop some of those actual referrals if we have the tools from zero to five years, to start putting that practice into our classes or curriculum."

EC educator quote 22

The ongoing responsibilities of educational leaders

Many EC educators felt that by participating in *Learning Language and Loving It™* they now had a relatively higher level of knowledge. Educator co-facilitators stated they felt that they have an ongoing obligation to support educators to continue to implement their new skills.

"I really want these programmes to be sustainable throughout our whole service and be on-going so I need to ensure that I'm consistent in my own practises with the children and then also as the leader where I'm using the language."

EC educator facilitator quote 6

Most EC educator co-facilitators also highlighted that they were able to provide ongoing support to their colleagues who were participating in *Learning Language and Loving It™*.

"I think as the Educational leader at my service, me being on the floor was very valuable because I was there constantly and I could pull them up and you didn't have access to the speech (pathologist) until your next session."

EC educator facilitator quote 7

An EC educator co-facilitator felt that her ECEC service was advantaged, when compared to other ECEC services who did not have an educational leader on site who was a facilitator.

"I think being on the floor with them [educators] is crucial because otherwise what happens I think often if you do a PD, you're really enthusiastic for a month and then it just sort of goes... because you share a little bit, maybe with your team, but there's no one that can sort of keep pushing those buttons."

EC educator facilitator quote 8

Educators who participated in *Learning Language and Loving It™* and the directors of their ECEC services value the relationships that have developed as a result of the program, and would like to see these partnerships continue. However, the challenges and restrictions around these partnerships are evident.

"It's hard, because you can't always just let educators, you know we have to be covered, so we talked about an email group. But we also wanted to catch up face to face so it's just [hard]... but when you have a set time to meet face to face it's more meaningful."

ECEC Director quote 10

The Collaborative Working Groups that have continued in 2017, since the completion of *Learning Language and Loving It™* were valued by both the majority of Educators, EC educator co-facilitator and the speech pathologist co-facilitator who had participated in them. Specifically, one EC educator said:

"Now it's slowly drifting off so even though a lot of the practices are embedded in what you do everyday, you do slack off over time so even for me, how do I keep that going. And of course that's where the collaborative meetings come into place where you pull each other back a little bit."

EC educator quote 23

Since the completion of the intervention, speech pathologists report they are now more likely to reach out to ECEC services, and in some instances, embed their service within the ECEC services. In some instances, speech pathologists have been invited back to deliver training to staff that did not participate in the project, and parent information sessions.

"I think in the future it would be good to have a Community Health Centre that has a direct link to childcare centres."

Speech pathologist facilitator quote 10

The time and cost of participating in professional learning

ECEC service directors and sector leaders discussed that while they can see the enormous benefits from taking part in a longer professional learning program like *Learning Language and Loving It™*, they stated they would not be able to financially support ongoing professional learning or networking meetings. In one rural location, travel between services impacted upon participation, commitment to the collaboration, and ongoing sustainability. Some Community Health Services reported that they were considering how to adapt current service delivery models to accommodate universal interventions.

Summarising the Qualitative and Quantitative Data

The concepts described in the focus groups, when considered alongside the quantitative data, can be grouped into four core themes:

1. EC educators' professional growth, and development of professional identities;
2. The value of collaboration between and within services and sectors
3. The positive impact of collaboration and professional learning at multiple tiers of early childhood education and community health services; and,
4. Enablers and barriers towards the sustainability of change in ECEC services.

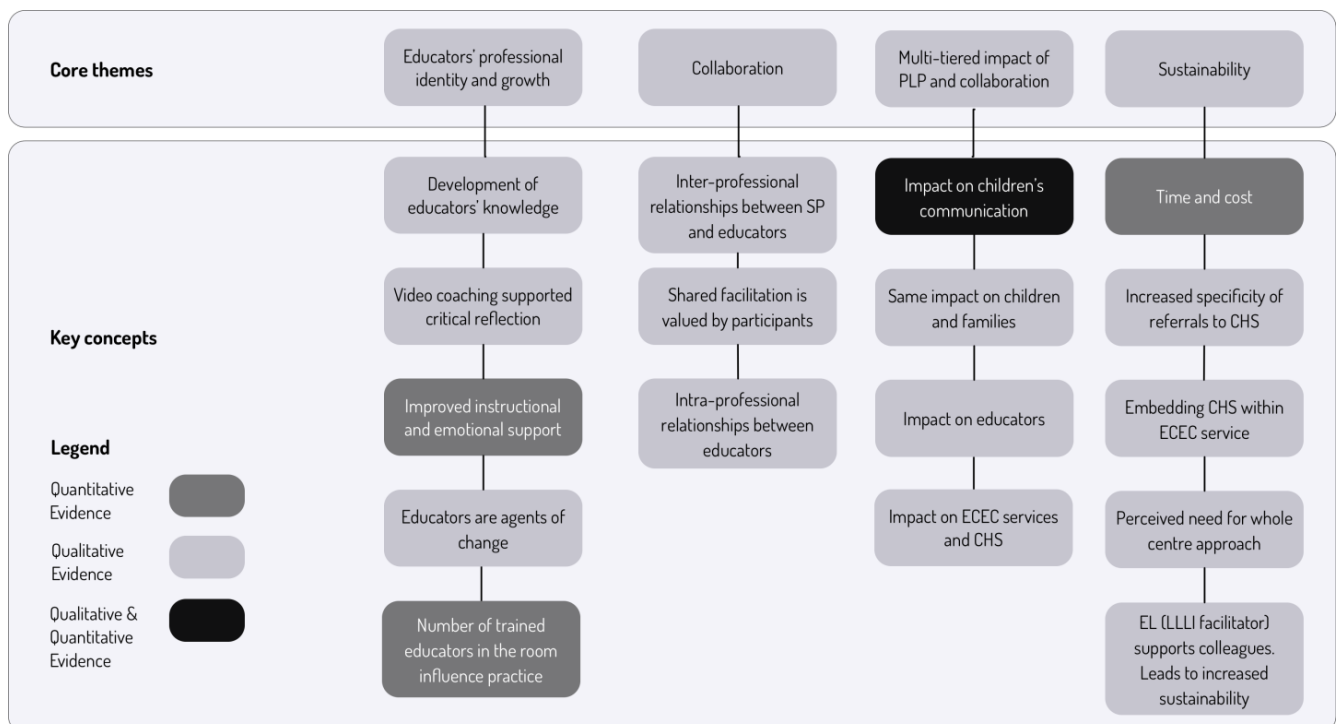


Figure 17: Core themes and concepts

Contextualising Findings from the Evaluation

The *Every Toddler Talking* initiative had three specified objectives. These were to:

1. Increase the knowledge and skills of early years professionals in enhancing language and communication skills among children (birth to three).
2. Strengthen collaboration practice between Allied Health (speech pathologists) and EC educators.
3. Enrich children's language and communication learning and development.

These three objectives, as detailed in the Outcome Logic Model (Appendix B), have clear links with three of the four themes that emerged from the findings of the evaluation. The fourth theme dealt with **sustainability of change in ECEC services**, and addresses the ongoing impact of these objectives within the early childhood education and care, and community health sectors.

Table 16: Objectives of *Every Toddler Talking*, and themes from the qualitative and quantitative data

Objectives		Themes
<ul style="list-style-type: none"> To increase the knowledge and skills of early years professionals in enhancing language and communication skills among children (birth to three years) 	➡	1. EC educators' professional growth, and development of professional identities
<ul style="list-style-type: none"> To strengthen collaborative practices between Allied Health (speech pathologists) and EC educators 	➡	2. The value of collaboration between and within services and sectors
<ul style="list-style-type: none"> To enhance children's language and communication learning and development 	➡	3. The positive impact of collaboration and professional learning at multiple tiers of early childhood education and community health services 4. Enablers and barriers towards the sustainability of change in ECEC services

These objectives and thematic findings are discussed below. The short and intermediate outcomes from the Outcome Logic Model (Appendix B) are also specified below.

Early childhood educators' knowledge, practice and professional identities are strengthened

The inclusion of the *Learning Language and Loving It™* program within the *Every Toddler Talking* initiative was guided by international research evidence, which demonstrated changes in EC educator practice and flow on effects in children's social interactions, word use and word combinations (Girolametto & Weitzman, 2007; Girolametto, Weitzman, & Greenberg, 2012) following implementation of the program. In order to support the development of a cross sector collaborative model, *Learning Language and Loving It™* was co-facilitated by a speech pathologist from a local community health service and an early childhood educational leader from a participating ECEC service.

Descriptive information collected from EC educators, families and children prior to the commencement of the professional learning program indicated that the control ECEC services and the intervention ECEC services were equivalent to each other at baseline. Initial room level observations of EC educator practice indicated that control and intervention ECEC services were not only equivalent with each other but typical of Australian ECEC services (Tayler, 2017). Using the CLASS tool, EC educators were observed to provide relatively high levels of *Emotional Support* and *Classroom Organisation*, but *Instructional Support*, including support for the development of concepts and language modelling was limited.

Follow up CLASS observations, conducted approximately one month after *Learning Language and Loving It™* was completed, demonstrated important changes in EC educator practice compared to those EC educators who did not participate in the professional learning program (the control group). These changes in practice were significant in toddler rooms between the two groups of EC educators and were observed in all CLASS domains, including *Emotional Support*, *Classroom Organisation* and *Instructional Support*. There were a limited number of CLASS observations completed in infant rooms resulting in limited scope to measure differences between the two groups of EC educators, however, important changes were noted across the domains of *Engaged Support for Learning* and *Emotional and Behavioural Support* (characterised by large effect sizes). These findings related to instructional support confirm that EC educators were able to integrate the strategies taught in the professional learning into their everyday practice with children (demonstrating VEYLDF Practice Principle *Integrated teaching and learning approaches*). Controlling for other differences between the two groups of EC educators ensured that the changes in observed practice can be confidently attributed to the intervention. In April 2017, a third CLASS observation was completed in rooms where educators had completed *Learning Language and Loving It™*. These observations indicated the level of sustained practice change by EC educators. Sustained and significant changes were noted in toddler rooms in the CLASS domains of *Instructional Support* and *Emotional Support*. These findings are consistent with previous studies using *Learning Language and Loving It™* but over a sustained period of time.

EC educators' perceptions of their professional growth and learning through *Learning Language and Loving It™* reflected increased knowledge about children's communication and language development. EC educators reported that video coaching was initially confronting but a valuable learning tool to critically reflect on their practice during the professional learning (VEYLDF Practice Principle *Reflective Practice*). While EC educators did not always recall the names of specific strategies introduced during *Learning Language and Loving It™*, they were able to describe changes in their practice. EC educators and ECEC service directors were able to recognise these practice changes and increased confidence in their professional practice. Based on EC educators comments during focus groups we have concluded that information about communication and language development is inconsistently included in the curriculums of initial preparation programs (e.g., in Certificate III, Diploma) or other professional learning opportunities. Some, but not all parents reported that they could see a difference in how their child's EC educator interacted with their child immediately after the end of the intervention.

Short term outcomes

Increased inter-professional knowledge among speech pathologist and educational leader paired professionals

Improved skills of speech pathologist and educational leader to coach EC educators to support children's language and learning

Improved use of intentional teaching focused on language and communication at trial sites

Intermediate outcomes

Intentional focus on language and communication is evident in services

Increased knowledge and skills in language and communication within services

Figure 18: Outcome Logic Model outcomes associated with EC educators' knowledge, practice and professional identity are strengthened

Collaborative relationships are strengthened

The establishment and maintenance of relationships between EC educators and speech pathologists across and within the early childhood education and the health sectors emerged as a strong theme. EC educators, facilitators of the professional learning, and service level leaders consistently reported that they perceived that there were a number of benefits from these professional relationships, such as support for families, more specific referrals to health services, and capacity to consult with each other about particular children and services.

Speech pathologists and EC educators who facilitated *Learning Language and Loving It™* spoke about finding common ground, developing and using a shared language when delivering the professional learning together, and having a mutual focus on EC educator practice through participating in *Every Toddler Talking*. Additionally, EC educators reported that collaboration between EC educators from different ECEC services had beneficial outcomes (e.g. networking, comparing practice, connection to a profession).

Short term outcomes

Increased inter-professional knowledge among speech pathologist and educational leader paired professionals

Improved skills of speech pathologist and educational leader to coach EC educators to support children's language and learning

Improved collaboration between speech pathologists and EC educators to advance children's language and communication 0-3 years

Intermediate outcome

Evidence of multidisciplinary approaches to support children's language and communication

Figure 19: Outcome Logic Model outcomes associated with collaborative relationships are strengthened

EC educators and speech pathologists identified a shared professional goal and purpose focused on improved outcomes for children and their families. Clear and frequent discussion of this shared goal aided in establishing and maintaining professional relationships and in navigating the complexities of service delivery through the course of the intervention (VEYLDF Practice Principles *Partnerships with professionals*, and *Respectful relationships and responsive engagement*).

Language and communication outcomes for babies and toddlers, and other associated outcomes

The evaluation of *Every Toddler Talking* was designed to also measure the impact of the initiative on children's language growth, specifically vocabulary development. There was a small, non-significant difference between T1 and T2 in the vocabulary growth of children who attended services where EC educators participated in *Learning Language and Loving It™*, and those who attended control services. Using percentile scores to measure growth in vocabulary requires careful interpretation. As described earlier, percentile scores are derived based on the child's age, and the number of words used, as reported by a parent or caregiver. Consequently, the same percentile score at T1 and T2 represents growth in vocabulary for a child relative to their age and gender, and equivalent to other children of their age. Increases and decreases in percentile scores, therefore, represent overall narrowing or widening of gaps for children compared to their peers. Children attending control ECEC services on average had decreasing percentile scores (4 points), suggesting that on average their vocabularies were developing at a marginally slower rate when compared to their peers. Children attending intervention ECEC services had on average stable percentile scores, indicating some growth in their vocabulary. While their average vocabularies were still smaller than their peers, the gap was not widening.

While not statistically significant, children in intervention ECEC services from backgrounds where English was not the first language had on average increasing percentile scores (7 points). This suggests that while their vocabularies were, on average, smaller than their peers, they were acquiring new words at an accelerated rate. More sensitive measures of communication and language change (i.e., measures of number of peer interactions, mean length of children's utterances, number of turns taken in interactions by child-EC educator pairs) were beyond the scope of this evaluation but may have provided a deeper and more detailed understanding of children's development, than vocabulary alone. This thematic finding is related to VEYLDF Practice Principles *Partnerships with families*, and *High expectations for every child* (Victorian Department of Education and Training, 2016).

The *Every Toddler Talking* evaluation also identified changes in the support provided by EC educators to families and facilitating their engagement with community health and other allied health services. EC educators discussed these changes with respect to their increased knowledge after completing *Learning Language and Loving It™*, increased awareness of community health services, and in establishing relationships with the speech pathologists working in these services. ECEC service directors and community health service leaders confirmed these changes during interviews with the evaluators. The value of fostering links with the ECEC Sector was apparent to the speech pathologists and Community Health Service leaders. Community Health Service leaders also saw the benefit of equipping ECEC services with a higher level of knowledge about language and communication was that EC educators would have greater confidence and willingness to make timely, informed and appropriate referrals to allied health services for children who required additional support.

<p>Short term outcome</p> <p><i>Improved skills of speech pathologist and educational leader to coach EC educators to support children's language and learning</i></p>
<p>Intermediate outcome</p> <p><i>Children within trial sites have improved language and communication outcomes</i></p>

Figure 20: Outcome Logic Model outcomes associated with Language and communication outcomes for babies and toddlers, and other associated outcomes

The sustainability of outcomes of the Every Toddler Talking initiative

The issue of sustained change in the *Every Toddler Talking* initiative has been addressed through two types of data; i) EC educator practice data at T3, and ii) focus group discussions of the enablers and barriers to sustaining change.

Observations of EC educator practice at T3 (approximately 6 months after completing *Learning Language and Loving It™*) indicated sustained changes in the areas of language modelling, quality of feedback, and concept development (CLASS domains of *Instructional Support* and *Engaged Support for Learning*), all of which are the focus of content within the professional learning program. Tracking change beyond 6 months would provide further evidence of sustainability in the longer term but can be complex due to changes in staffing within rooms and within ECEC services.

There are a number of factors that have had or have the potential to impact upon the sustainability of the changes made through *Every Toddler Talking*. These include: time and availability of staff, staffing arrangements, movement and continuity of staff and families, costs incurred to services in providing professional learning of the duration and the commitment required in *Learning Language and Loving It™*, and organisational culture that enables or prevents professional learning and growth. In a number of locations where the *Every Toddler Talking* initiative took place, there are ongoing, informal interactions between community health based speech pathologists and ECEC services. Some community health services are considering strategies to strengthen relationships with ECEC services, with an interest in embedding community health services within ECEC services in the longer term.

Embedded within *Every Toddler Talking* were local based collaborative working groups, consisting of the *Learning Language and Loving It™* facilitators and the EC educators who participated in the professional learning. These were valued by participants, but engagement occurred relative to staff movement and changes within services.

The outcomes of Every Toddler Talking and the VEYLDF

The outcomes from the evaluation of the *Every Toddler Talking* initiative have clear and direct links with the Practice Principles specified in the VEYLDF (Victorian Department of Education and Training, 2016). These are summarised in

Table 17.

Table 17: Summary of outcomes of *Every Toddler Talking* and the VEYLDF Practice Principles

<i>Every Toddler Talking</i> Evaluation Outcomes	Practice Principles
EC educators' professional growth, and development of professional identities;	Integrated teaching and learning approaches Reflective practice
The value of collaboration between and within services and sectors; and,	Partnerships with professionals Respectful relationships and responsive engagement
The positive impact of collaboration and professional learning at multiple tiers of early childhood education and community health services;	Partnerships with families High expectations for every child
Enablers and barriers towards the sustainability of change in ECEC services.	

A Model of Collaborative Practice in Early Childhood Education and Care

Theoretical basis of inter-professional collaboration

A number of authors have provided theories, frameworks and conceptual maps that explain the nature and process(es) that underpin professional learning and development. In particular Forbes and McCartney (2010) and McKean et al. (2017) have developed and applied social capital theory (Putnam, 1995) to explicate inter-professional collaboration between EC educators and speech pathologists.

Within Victoria, the Relational Agency Framework developed and adapted by Flear, Duhn & Harrison (2017) describes a sequential process through which multidisciplinary professionals establish, develop, strengthen and sustain their networks. The authors describe eight phases through which professionals' progress in the creation of these networks. These phases describe progression from the early foundational establishment of professional networks, through which professionals begin to develop a sense of belonging. As professional relationships develop, knowledge of other professions, the sharing of common experiences and purposes emerges. The framework goes on to describe the attainment of a shared language between professionals, with later network achievements including the alignment of interpretations and purposes with other professions, and strengthened insight and perspectives (Appendix C).

Consistent with the Relational Agency Framework (Flear, Duhn, Harrison, 2017), we have recognised the importance of the sequential and gradual establishment of relationships and networks, and the importance of foundational skills. In applying a model to the *Every Toddler Talking* initiative we have chosen to align with features of the VEYLDF ecological model (Victorian Department of Education and Training, 2016), whilst acknowledging the need for sequential development of collaboration. We identified that there are three levels at which social capital operates, and exert influence on the implementation and outcomes of interventions that foster collaboration. These three levels, as identified in the Victorian early childhood context are:

- Macro-level: relates to service policy, specifically the Victorian Department of Education and Training, the Victorian Department of Health and Human Services, the Victorian Curriculum and Assessment Authority, the Australian Children's Education and Care Quality Authority
- Meso-level: relates to ECEC services, and Community Health Services
- Micro-level: relates to individual EC educators, speech pathologists, children and families.

Forbes and McCartney (2010) describe three key components of inter-professional, or co-professional, collaborative practices: networks, norms and trust. Networks are the relationships that emerge through interactions, and are defined by commonalities. Norms are the rules, values and expectations that characterise members within a network. Trust and reciprocity is needed for a network to function cooperatively. Forbes and McCartney (2010), describe a continuum of connectedness and collaboration across these three components.

In applying a model that is derived from social capital theory to the process of implementation of an intervention program, we identified three key phases: the optimum threshold conditions, the intervention phase, and the outcomes. We differentiate between three types of outcomes: short term outcomes that are evident at the completion of the intervention, long term or sustained outcomes, and indirect outcomes. We describe each phase of the model at each service level in specific relation to *Every Toddler Talking* below.

Application of model to service level case studies

The *Every Toddler Talking* initiative had a significant effect on EC educator practice. However, the impact of the intervention varied amongst the 19 ECEC services who participated in the intervention. The model of collaborative intervention targeting communication in early childhood is used to illustrate three case studies below, detailing the threshold conditions, intervention, and the subsequent outcomes observed and reported in each case. These three case studies are designed to highlight the spectrum of engagement of services with the *Every Toddler Talking* initiative.

Every Toddler Talking Model of Collaborative Practice

		Threshold Conditions	Intervention	Immediate outcomes	Longer term outcomes	Sustained outcomes
M A C R O	DET, DHS, VCAA & ACECQA	<ul style="list-style-type: none"> Policy that supports and values cross sector and inter agency partnerships. VEYLDF, NQS Cross sector and inter agency forums and opportunities to establish relationships. Provide accountable leadership for learning and development outcomes and support for research based practice in learning networks 	<i>Provision of intervention that is:</i> <ul style="list-style-type: none"> <i>Evidence based</i> <i>Collaborative</i> <i>Sustained</i> <i>Includes opportunities for coaching and critical reflection</i> <i>Appropriate for the Victorian context</i> <i>Facilitated by both EC educators and speech pathologists</i> 	<ul style="list-style-type: none"> Recognition of the need for high quality professional learning targeting communication development for very young children Knowledge that high quality professional learning that incorporates coaching and feedback can change educator practice 	<ul style="list-style-type: none"> Policy that it is informed by locally generated, high quality evidence, and in turn supports evidence based practice and strategies to support children's communication development 	<ul style="list-style-type: none"> High quality early childhood education is available to all children
	Early Childhood Education and Care Services	<ul style="list-style-type: none"> To be meeting NQS Effective Governance structures in place Service level policies that value and prioritise children's communication Stability in staffing and leadership Capacity and resources to engage with intervention, including <ul style="list-style-type: none"> Investment in intervention including staff hours to fully participate Whole room/centre participation Commitment to entirety of intervention Proximity to CH service 		<ul style="list-style-type: none"> Improved educational and pedagogical quality, with respect to NQS Area 1. Educational Program & Practice; NQS Area 7. Educational Leadership Service program maps to practice principles and children's outcomes as described in the VEYLDF Professional identity developed within staff 	<ul style="list-style-type: none"> Strengthened community networks and partnerships Culture of reflective practice supporting professional growth and knowledge sharing between ECEC and CH staff. 	<ul style="list-style-type: none"> Embedded commitment at all levels of the organisation to continually improve practice
M E S O	Community Health Services	<ul style="list-style-type: none"> Service delivery that values universal, community based interventions Proximity to ECEC services Capacity and resources to engage with intervention Understanding of and ability to work within ECEC service daily routines 		<ul style="list-style-type: none"> Improved referral specificity Recognition of the role the CH services can play within a community Benefits of embedding CH services within other community services is recognised 	<ul style="list-style-type: none"> Strengthen community networks and partnerships 	<ul style="list-style-type: none"> CH services co-located or embedded within ECEC services Embedded commitment at all levels of the organisation to continually improve practice
	Early Childhood Educators	<ul style="list-style-type: none"> Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks (e.g. VEYLDF) Commitment to engage with the intervention (e.g. duration, practice activities, self-reflection) 		<ul style="list-style-type: none"> Increased knowledge of child development (e.g. with LLLI - language & communication development) Improved instructional support, pedagogy & practice Educators are more authentic and responsive to all children's needs Confidence in delivering information about children's communication and development to families Shared language & common goals with speech pathologists Improved integrated teaching and learning approaches 	<ul style="list-style-type: none"> Trusting and supportive relationship with SLPs Strengthened professional identity Belief in ability to change children's outcomes 	<ul style="list-style-type: none"> Ongoing responsibility for the support of communication
M I C R O	Speech Pathologists	<ul style="list-style-type: none"> Preparedness to engage in non-traditional, non-clinical interventions Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks and pedagogy (e.g. VEYLDF) Flexibility in response to educator 		<ul style="list-style-type: none"> Increased pedagogical knowledge & understanding of ECEC services Shared language & common goals with EC educators 	<ul style="list-style-type: none"> Trusting and supportive relationship with EC educators 	<ul style="list-style-type: none"> Ongoing commitment to collaborative relationship with an ECEC service and individual EC educators
	Children/families	<ul style="list-style-type: none"> To be regularly attending an ECEC service 		<ul style="list-style-type: none"> Implementation of strategies that support educator practice and a learning environment that promotes High Expectations for Every Child Educators strengthen practice towards developing partnerships with families 	<ul style="list-style-type: none"> Equitable approaches provide for children and families who require additional services and support 	<ul style="list-style-type: none"> Improved communication outcomes for all children

Case Study One

This ECEC service is part of a wider network of services that has a well-established and embedded governance structure. The service has consistently been found to be meeting or exceeding National Quality Standards. The staffing within the service is characterised by a high level of stability, with some EC educators having been employed within the same organisation for over 20 years. Traditionally, professional learning has been delivered internally, or with EC educators from other services within the same organisation. The small ECEC service has had consistency in management and leadership. The service is located in a community that has a very low social-economic status, and there are a high number of children who attend the service who are in out of home care. While a number of children and families who attend the service have been referred to community health services for assessment and intervention, the EC educators from the service reported that families' engagement with external services, including speech pathology, was inconsistent.

Three EC educators who worked in the nursery and toddler rooms at this service participated in *Every Toddler Talking*, in addition to the educational leader who was from the Kindergarten room. These EC educators attended most or all of the face to face sessions, and participated in the video feedback sessions with the speech pathologist who co-facilitated *Learning Language and Loving It™*.

This service was observed at baseline (T1), outcome 1 (T2) and outcome 2 (T3). At baseline, this service received a high score in the CLASS domain of emotional support. Classroom organisation was in the mid-range, and instructional support was low. At T2, at the end of 2016, both emotional support and classroom organisation were observed to be in the mid-range, and instructional support had also moved into the low to mid-range. While instructional support was not maintained consistently in the mid-range at T3, some cycles were in the mid-range.

Table 18: Case study one CLASS scores

CLASS domain	T1	T2	T3
Emotional support	6.15	5.8	6.15
Classroom organisation	5.1	4.2	4.3
Instructional support	1.2	3.2	2.5

With respect to child vocabulary outcomes, at baseline, a percentile score was calculated from the Macarthur-Bates CDI for ten children at this service, with an average score of 29.44 (S.D. 24.19). At T2, a percentile score was calculated for six children, with an average score of 54 (S.D. 29.82). There were very few children at T3, a percentile score could only be calculated for two children, which were found to have vocabulary scores of 37th and 53rd. Given the small numbers and high level of variability (large standard deviations), these figures should be interpreted with caution.

Following the intervention, observations confirmed improved educational and pedagogical quality, with respect to NQS Quality Area 1 Educational Program & Practice; NQS Area 7 Leadership and Service Management. Educators spoke of strengthened professional identities, and highly valued relationships with EC educators at other local ECEC services following the professional learning program. While improved child communication was not reflected in quantitative data, EC educators reported that they observed improved communication skills in many children, especially the most vulnerable children who attended the service.

The community health service in this location reported increased referral rates and specificity to their paediatric speech pathology service, and that the connections with the ECEC service were strengthened. This strong relationship was also reported by EC educators, who spoke of an increased ability to support vulnerable families to seek out and engage with other services.

When considered against the relational agency framework (Fleer, Duhn & Harrison, 2017), there is evidence to support the conclusion that services in this example reached the later phases of building relational agency. There was evidence of enhanced professional practice and importantly, the EC educators' reported strengthened professional identities.

Case Study One

		Threshold Conditions	Intervention	Immediate outcomes	Longer term outcomes	Sustained outcomes
M A C R O	DET, DHS, VCAA & ACECQA	<ul style="list-style-type: none"> Policy that supports and values cross sector and inter agency partnerships. VEYLDF, NQS Cross sector and inter agency forums and opportunities to establish relationships. Provide accountable leadership for learning and development outcomes and support for research based practice in learning networks 	<i>Provision of intervention that is:</i> <ul style="list-style-type: none"> <i>Evidence based</i> <i>Collaborative</i> <i>Sustained</i> <i>Includes opportunities for coaching and critical reflection</i> <i>Appropriate for the Victorian context</i> <i>Facilitated by both EC educators and speech pathologists</i> 	<ul style="list-style-type: none"> Recognition of the need for high quality professional learning targeting communication development for very young children Knowledge that high quality professional learning that incorporates coaching and feedback can change educator practice 	<ul style="list-style-type: none"> Policy that it is informed by locally generated, high quality evidence, and in turn supports evidence based practice and strategies to support children's communication development 	<ul style="list-style-type: none"> High quality early childhood education is available to all children
	Early Childhood Education and Care Services	<ul style="list-style-type: none"> To be meeting NQS Effective Governance structures in place Service level policies that value and prioritise children's communication Stability in staffing and leadership Capacity and resources to engage with intervention, including <ul style="list-style-type: none"> Investment in intervention including staff hours to fully participate Whole room/centre participation Commitment to entirety of intervention Proximity to CH service 		<ul style="list-style-type: none"> Improved educational and pedagogical quality, with respect to NQS Area 1. Educational Program & Practice; NQS Area 7. Educational Leadership Service program maps to practice principles and children's outcomes as described in the VEYLDF Professional identity developed within staff 	<ul style="list-style-type: none"> Strengthened community networks and partnerships Culture of reflective practice supporting professional growth and knowledge sharing between ECEC and CH staff. 	<ul style="list-style-type: none"> Embedded commitment at all levels of the organisation to continually improve practice
M E S O	Community Health Services	<ul style="list-style-type: none"> Service delivery that values universal, community based interventions Proximity to ECEC services Capacity and resources to engage with intervention Understanding of and ability to work within ECEC service daily routines 		<ul style="list-style-type: none"> Improved referral specificity Recognition of the role the CH services can play within a community Benefits of embedding CH services within other community services is recognised 	<ul style="list-style-type: none"> Strengthen community networks and partnerships 	<ul style="list-style-type: none"> CH services co-located or embedded within ECEC services Embedded commitment at all levels of the organisation to continually improve practice
M I C R O	Early Childhood Educators	<ul style="list-style-type: none"> Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks (e.g. VEYLDF) Commitment to engage with the intervention (e.g. duration, practice activities, self-reflection) 		<ul style="list-style-type: none"> Increased knowledge of child development (e.g. with LLLI - language & communication development) Improved instructional support, pedagogy & practice Educators are more authentic and responsive to all children's needs Confidence in delivering information about children's communication and development to families Shared language & common goals with speech pathologists Improved integrated teaching and learning approaches 	<ul style="list-style-type: none"> Trusting and supportive relationship with SLPs Strengthened professional identity Belief in ability to change children's outcomes 	<ul style="list-style-type: none"> Ongoing responsibility for the support of communication
	Speech Pathologists	<ul style="list-style-type: none"> Preparedness to engage in non-traditional, non-clinical interventions Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks and pedagogy (e.g. VEYLDF) Flexibility in response to educator 		<ul style="list-style-type: none"> Increased pedagogical knowledge & understanding of ECEC services Shared language & common goals with EC educators 	<ul style="list-style-type: none"> Trusting and supportive relationship with EC educators 	<ul style="list-style-type: none"> Ongoing commitment to collaborative relationship with an ECEC service and individual EC educators
	Children/families	<ul style="list-style-type: none"> To be regularly attending an ECEC service 		<ul style="list-style-type: none"> Implementation of strategies that support educator practice and a learning environment that promotes High Expectations for Every Child Educators strengthen practice towards developing partnerships with families 	<ul style="list-style-type: none"> Equitable approaches provide for children and families who require additional services and support 	<ul style="list-style-type: none"> Improved communication outcomes for all children

	Threshold condition /outcome present
	Threshold condition/outcome not evident
	Threshold condition/outcome partially present

Case Study Two

Centre management at this ECEC service was initially highly enthusiastic about participating in *Every Toddler Talking*, and support and encouragement was provided to EC educators to attend the training. The ECEC service director spoke of the importance of supporting early language and communication, and that this was an area of priority for the service. As this was a smaller service, two EC educators from one room attended, and a third EC educator from a second room.

The EC educators from this service attended most *Learning Language and Loving It™* sessions in 2016, although some sessions were missed due to illness or holidays. The video feedback sessions took place at the service with a visiting speech pathologist who co-facilitated the professional learning.

This service was observed at baseline (T1), outcome 1 (T2) and outcome 2 (T3). At baseline, this service received a high mid-range score in the CLASS domain of emotional support. Similar to case study one, classroom organisation was in the mid-range, and instructional support was low. At T2, at the end of 2016, both emotional support and classroom organisation were observed to be in the mid-range, and instructional support was observed to be in the mid-range in some observation cycles, but on average, was in the higher end of the low range. At T3, it was observed that emotional support was at a similar level, with classroom organisation observed to be in the low mid-range, and instructional support has returned to be consistently in the low range.

Table 19: Case study two CLASS scores

CLASS domain	T1	T2	T3
Emotional support	5.95	5.85	5.35
Classroom organisation	4.93	5.4	3.9
Instructional support	1.3	2.6	1.9

In 2017 one staff member left the service, and the two remaining EC educators moved into different rooms. The ECEC service director also left the service early in the year. Due to other commitments, the EC educators were not able to attend the Collaborative Working Groups. This instability in staffing and leadership, and disengagement from the intervention limited further outcomes.

With respect to child vocabulary outcomes at baseline, a percentile score was calculated from the Macarthur-Bates CDI for ten children at this service, with an average score of 33.9 (S.D. 29.11). At T2, a percentile score was calculated for eight children, with an average score of 32.62 (S.D. 30.3). There were few children with vocabulary scores at T3, a percentile score was calculated for six children, with an average score of 21.3 (S.D. 15.39). As with case study one, the small numbers and high level of variability (large standard deviations) means that these figures should be interpreted with caution. The average vocabulary scores decreased from T1 to

T3 which could reflect the children/families who continued to participate through to T3. However, we cannot draw conclusions with so little CDI data available.

This service showed initial growth and development in their educational and pedagogical quality in 2016, however this was not sustained into 2017. Educators reported some changes in their professional identity and their knowledge of communication and language development, but that this was not sustained. Ongoing and reciprocal relationships with other services and the community health service were not established, and an improvement in the communication skills of the children who attended this service was not observed.

While this ECEC service made progress in the development of relational agency with other ECEC services and the community health service, changes achieved at the higher levels of the framework were not sustained into 2017 (Fleer, Duhn & Harrison, 2017).

Case Study Two

		Threshold Conditions	Intervention	Immediate outcomes	Longer term outcomes	Sustained outcomes
M A C R O	DET, DHS, VCAA & ACECQA	<ul style="list-style-type: none"> Policy that supports and values cross sector and inter agency partnerships. VEYLDF, NQS Cross sector and inter agency forums and opportunities to establish relationships. Provide accountable leadership for learning and development outcomes and support for research based practice in learning networks 	<i>Provision of intervention that is:</i> <ul style="list-style-type: none"> <i>Evidence based</i> <i>Collaborative</i> <i>Sustained</i> <i>Includes opportunities for coaching and critical reflection</i> <i>Appropriate for the Victorian context</i> <i>Facilitated by both EC educators and speech pathologists</i> 	<ul style="list-style-type: none"> Recognition of the need for high quality professional learning targeting communication development for very young children Knowledge that high quality professional learning that incorporates coaching and feedback can change educator practice 	<ul style="list-style-type: none"> Policy that it is informed by locally generated, high quality evidence, and in turn supports evidence based practice and strategies to support children's communication development 	<ul style="list-style-type: none"> High quality early childhood education is available to all children
	Early Childhood Education and Care Services	<ul style="list-style-type: none"> To be meeting NQS Governance structures in place Service level policies that value and prioritise children's communication Stability in staffing and leadership Capacity and resources to engage with intervention, including <ul style="list-style-type: none"> Investment in intervention Whole room/centre participation Commitment to entirety of intervention Proximity to CH service 		<ul style="list-style-type: none"> Improved educational and pedagogical quality, with respect to NQS Area 1. Educational Program & Practice; NQS Area 7. Educational Leadership Service program maps to practice principles and children's outcomes as described in the VEYLDF Professional identity developed within staff 	<ul style="list-style-type: none"> Strengthened community networks and partnerships Culture of professional growth and knowledge sharing between staff 	<ul style="list-style-type: none"> Embedded commitment at all levels of the organisation to continually improve practice
M E S O	Community Health Services	<ul style="list-style-type: none"> Service delivery that values universal, community based interventions Proximity to ECEC services Capacity and resources to engage with intervention Understanding of and ability to work within ECEC service daily routines 		<ul style="list-style-type: none"> Improved referral specificity Recognition of the role the CH services can play within a community Benefits of embedding CH services within other community services is recognised 	<ul style="list-style-type: none"> Strengthen community networks and partnerships 	<ul style="list-style-type: none"> CH services co-located or embedded within ECEC services Embedded commitment at all levels of the organisation to continually improve practice
M I C R O	Early Childhood Educators	<ul style="list-style-type: none"> Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks (e.g. VEYLDF) Commitment to engage with the intervention (e.g. duration, practice activities, self-reflection) 		<ul style="list-style-type: none"> Increased knowledge of child development (e.g. with LLLI - language & communication development) Improved instructional support, pedagogy & practice Educators are more authentic and responsive to all children's needs Confidence in delivering information about children's communication and development to families Shared language & common goals with speech pathologists Improved integrated teaching and learning approaches 	<ul style="list-style-type: none"> Trusting and supportive relationship with SLPs Strengthened professional identity Belief in ability to change children's outcomes 	<ul style="list-style-type: none"> Ongoing responsibility for the support of communication
	Speech Pathologists	<ul style="list-style-type: none"> Preparedness to engage in non-traditional, non-clinical interventions Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks and pedagogy (e.g. VEYLDF) Flexibility in response to educator 		<ul style="list-style-type: none"> Increased pedagogical knowledge & understanding of ECEC services Shared language & common goals with EC educators 	<ul style="list-style-type: none"> Trusting and supportive relationship with EC educators 	<ul style="list-style-type: none"> Ongoing commitment to collaborative relationship with an ECEC service and individual EC educators
	Children/families	<ul style="list-style-type: none"> To be regularly attending an ECEC service 		<ul style="list-style-type: none"> Implementation of strategies that support educator practice and a learning environment that promotes High Expectations for Every Child Educators strengthen practice towards developing partnerships with families 	<ul style="list-style-type: none"> Equitable approaches provide for children and families who require additional services and support 	<ul style="list-style-type: none"> Improved communication outcomes for all children

	Threshold condition /outcome present
	Threshold condition/outcome not evident
	Threshold condition/outcome partially present

Case Study Three

The director of this ECEC service agreed to participate in *Every Toddler Talking*. It became apparent early in the intervention phase that the three EC educators who had been nominated to attend *Learning Language and Loving It™* were doing so reluctantly and unwillingly. The three staff from this service attended sessions intermittently, and had limited participation in the group sessions. Limited preparation for the scheduled video sessions meant that video feedback was either not provided, or only provided in part.

This service did not return any consent forms from families, and as a result, no CDI data was collected. At baseline (T1), emotional support and classroom organisation were both observed to be in the mid-range, and instructional support was in the low range. At the end of 2016, this service was observed to show lower quality in emotional support and classroom organisation, and instructional support remained in the low range. During the intervention phase, all three EC educators resigned from the service, and the service director resigned shortly after. The limited engagement and investment in the intervention, and instability in staffing and leadership, alongside very limited and tense relationships and interactions between staff from this service and other ECEC services and community health, resulted in negligible change in pedagogical and educational quality.

Table 20: Case study three CLASS scores

CLASS domain	T1	T2	T3
Emotional support	5.75	4.05	ECEC service declined to participate in data collection at T3
Classroom organisation	5.06	3.06	
Instructional support	1.4	1.2	

When considered against the relational agency framework (Fleer, Duhn & Harrison, 2017), there is evidence to support the conclusion that the service did not meet the foundational phase of relational agency, and did not demonstrate a sense of belonging to a network, or engagement with other services.

Case Study Three

		Threshold Conditions	Intervention	Immediate outcomes	Longer term outcomes	Sustained outcomes
M A C R O	DET, DHS, VCAA & ACECQA	<ul style="list-style-type: none"> Policy that supports and values cross sector and inter agency partnerships. VEYLDF, NQS Cross sector and inter agency forums and opportunities to establish relationships. Provide accountable leadership for learning and development outcomes and support for research based practice in learning networks 	<i>Provision of intervention that is:</i> <ul style="list-style-type: none"> Evidence based Collaborative Sustained Includes opportunities for coaching and critical reflection Appropriate for the Victorian context Facilitated by both EC educators and speech pathologists 	<ul style="list-style-type: none"> Recognition of the need for high quality professional learning targeting communication development for very young children Knowledge that high quality professional learning that incorporates coaching and feedback can change educator practice 	<ul style="list-style-type: none"> Policy that it is informed by locally generated, high quality evidence, and in turn supports evidence based practice and strategies to support children's communication development 	<ul style="list-style-type: none"> High quality early childhood education is available to all children
	Early Childhood Education and Care Services	<ul style="list-style-type: none"> To be meeting NQS Governance structures in place Service level policies that value and prioritise children's communication Stability in staffing and leadership Capacity and resources to engage with intervention, including <ul style="list-style-type: none"> Investment in intervention Whole room/centre participation Commitment to entirety of intervention Proximity to CH service 		<ul style="list-style-type: none"> Improved educational and pedagogical quality, with respect to NQS Area 1. Educational Program & Practice; NQS Area 7. Educational Leadership Service program maps to practice principles and children's outcomes as described in the VEYLDF Professional identity developed within staff 	<ul style="list-style-type: none"> Strengthened community networks and partnerships Culture of reflective practice supporting professional growth and knowledge sharing between ECEC and CH staff. 	<ul style="list-style-type: none"> Embedded commitment at all levels of the organisation to continually improve practice
M E S O	Community Health Services	<ul style="list-style-type: none"> Service delivery that values universal, community based interventions Proximity to ECEC services Capacity and resources to engage with intervention Understanding of and ability to work within ECEC service daily routines 		<ul style="list-style-type: none"> Improved referral specificity Recognition of the role the CH services can play within a community Benefits of embedding CH services within other community services is recognised 	<ul style="list-style-type: none"> Strengthen community networks and partnerships 	<ul style="list-style-type: none"> CH services co-located or embedded within ECEC services Embedded commitment at all levels of the organisation to continually improve practice
M I C R O	Early Childhood Educators	<ul style="list-style-type: none"> Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks (e.g. VEYLDF) Commitment to engage with the intervention (e.g. duration, practice activities, self-reflection) 		<ul style="list-style-type: none"> Increased knowledge of child development (e.g. with LLLI - language & communication development) Improved instructional support, pedagogy & practice Educators are more authentic and responsive to all children's needs Confidence in delivering information about children's communication and development to families Shared language & common goals with speech pathologists Improved integrated teaching and learning approaches 	<ul style="list-style-type: none"> Trusting and supportive relationship with SLPs Strengthened professional identity Belief in ability to change children's outcomes 	<ul style="list-style-type: none"> Ongoing responsibility for the support of communication
	Speech Pathologists	<ul style="list-style-type: none"> Preparedness to engage in non-traditional, non-clinical interventions Independence, willingness and preparedness to engage in sustained professional learning Awareness & willingness to apply inter disciplinary frameworks and pedagogy (e.g. VEYLDF) Flexibility in response to educator 		<ul style="list-style-type: none"> Increased pedagogical knowledge & understanding of ECEC services Shared language & common goals with EC educators 	<ul style="list-style-type: none"> Trusting and supportive relationship with EC educators 	<ul style="list-style-type: none"> Ongoing commitment to collaborative relationship with an ECEC service and individual EC educators
	Children/families	<ul style="list-style-type: none"> To be regularly attending an ECEC service 		<ul style="list-style-type: none"> Implementation of strategies that support educator practice and a learning environment that promotes High Expectations for Every Child Educators strengthen practice towards developing partnerships with families 	<ul style="list-style-type: none"> Equitable approaches provide for children and families who require additional services and support 	<ul style="list-style-type: none"> Improved communication outcomes for all children

	Threshold condition /outcome present
	Threshold condition/outcome not evident
	Threshold condition/outcome partially present

Conclusion

The early years of childhood are a crucial period, during which children aged birth to three years undergo a period of enormous growth and development. In implementing the *Every Toddler Talking* initiative, the Victorian Department of Education and Training have responded to an identified need to support and strengthen the language learning environment for very young children within Early Childhood Education and Care services. This was done specifically by seeking to increase the knowledge and practice of early years educators, in enhancing language and communication skills among children, and strengthen collaborative practice between allied health (speech pathologists) and EC educators.

Phase one of *Every Toddler Talking*, completed by the Murdoch Children's Research Institute, provided a thorough review of the literature, and through consultation with early childhood professionals from across the ECEC and health sectors, determined *Learning Language and Loving It™* to be the most appropriate intervention for the Victorian context. The second phase, as described in this report, sought to evaluate the impact of *Learning Language and Loving It™* upon EC educator practice and child language & communication outcomes, as well as the process of implementing *Learning Language and Loving It™*, including delivery, scalability, sustainability and collaboration between EC educators and speech pathologists at the individual, service and sector level.

The most significant outcome of the *Every Toddler Talking* initiative was that EC educator practice was improved in the short- and mid-term, and there was a statistically significant difference between the ECEC services that participated in the intervention, and control ECEC services. Importantly, in the process evaluation, EC educators reported being better able to support every child's learning and development based on their increased knowledge and implementation of the professional learning strategies.

One of the key strengths of the *Every Toddler Talking* initiative is its generalisability to the ECEC sector more broadly. This is due to a range of ECEC services and locations being included and the careful selection of matched control ECEC services. Both quantitative and qualitative measures were used to strengthen the evaluation of impact and process of implementation. In addition, this engagement with the program itself and its evaluation was at multiple levels of the health and education sectors (individual practitioners, services and leadership).

Within the design and measurement constraints of the evaluation, it was not possible to demonstrate clear improvements in the language outcomes for infants and toddlers. However, there is some evidence for a relative advantage in vocabulary growth for intervention children and specifically for those children from language backgrounds other than English. Additionally, there was qualitative evidence to suggest that EC educators observed functional impacts of their training and changed practice on the children that they worked with.

Cross-sector collaborative relationships were established and strengthened through participation in *Every Toddler Talking*. EC educators, facilitators of the professional learning, and service level leaders all reported benefits, including some unexpected positive outcomes from these professional relationships for families and children.

It has become evident in this evaluation that there is scope to include a much higher level of training in child language and communication development for educators working with children in the birth to three age group, including evidence based strategies. Providing all educators with the knowledge and capability to support children's communication, especially those who work with children birth to three years, will have flow on effects to all five early years learning and development outcomes specified within the VEYLDF (Victorian Department of Education and Training, 2016). Similarly, there is an identified need to equip speech pathologists who work with young children with a greater awareness and knowledge of practices and pedagogy within the ECEC sector, and interventions that are delivered in the community. Both EC educators and speech pathologists stand to benefit from increased knowledge, skills and opportunities to practice collaboratively, both within and between the ECEC and CH sectors.

When providing professional learning programs within the context of ECEC services, this research has highlighted the importance of recognising and responding to threshold conditions within the service. These are addressed in detail in the body of this report, but in summary, include staffing stability, and ensuring there is both the capacity and resources within the service to engage with the professional learning in meaningful ways. Importantly, a whole of service approach to professional learning ensures that EC educational leaders and EC educators working together in rooms can support each other's implementation of new instructional strategies; a key finding from the evaluation. Furthermore, the practice changes achieved through the implementation of instructional strategies in ECEC practice is bolstered through concurrent video feedback and coaching.

The *Every Toddler Talking* initiative makes a significant contribution to the early childhood field in Victoria, Australia, and internationally. It represents one of a few studies which have confirmed the successful impact of professional learning on EC educator practice in a sustained way, specifically, in the instructional support for language learning.

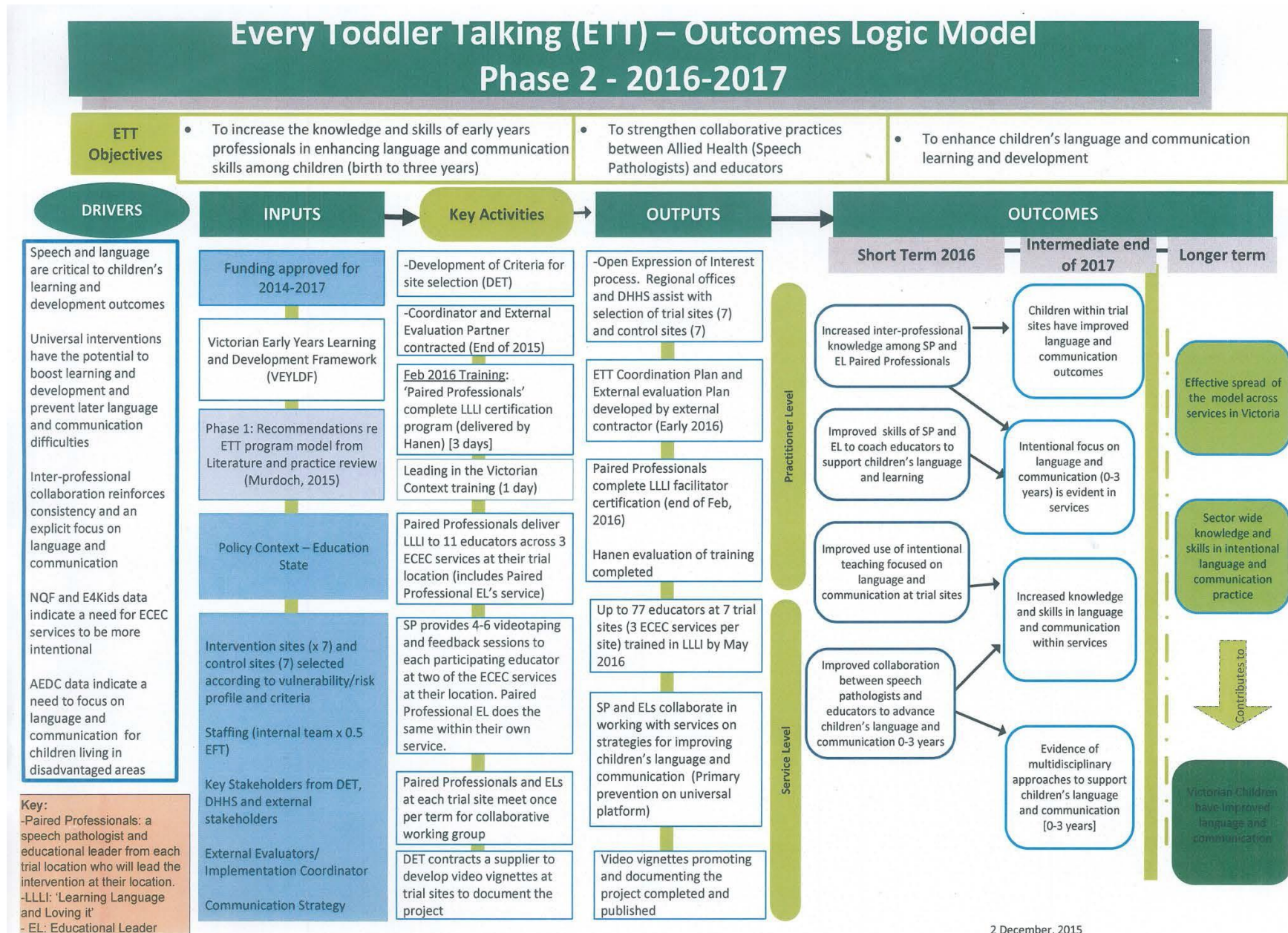
Appendix A

Learning Language and Loving It™ mapped against VEYLDF (adapted from Murdoch Children's Research Institute, 2015)

Practice VEYLDF Principles		Yes	Partially	No
Practice Principle: Partnerships with Families	Foster respectful relationships and responsive engagement through welcoming and culturally inclusive environments		✓	
	Share information with families using a range of styles and kinds of communication to foster engagement in planning for children's learning and development		✓	
	Regard families as experts on their children's lives and actively seek children's and families' views and take them into account in practice (shared decision making)		✓	
	Offer choices and encourage families to make decisions		✓	
	Take responsibility for initiating and sustaining family-centered practice			✓
Practice Principle: Partnerships with Professionals	Communicate openly and constructively with other professionals	✓		
	Working towards shared goals: supporting children's learning and development	✓		
	Value the experience of other professionals and make referrals when appropriate	✓		
	Lead collaboration and partnerships and encourage others to lead		✓	
	Commit to working together to advance knowledge about children's learning and development	✓		
	Understand each other's practice, skills and expertise and make referrals when appropriate	✓		
	Build on children's prior learning experiences to build continuity of learning		✓	
Practice Principle: High expectations for every child	Communicate high expectations to every child, every day	✓		
	Advocate for high expectations with parents, colleagues and other professionals		✓	
	Enable every child to experience success by providing differentiated approaches that take account and build on children's strengths, abilities and interests	✓		
	Have high expectations of themselves and view themselves as agents of change		✓	
	Engage in ongoing reflective practice, including reflecting on bias and promoting social justice and equity		✓	
Practice Principle: Equity and diversity	Support children's evolving capacities to learn from birth	✓		
	Ensure that the interests, abilities and culture of every child and their family are understood, valued and respected		✓	
	Maximise opportunities for every child	✓		
	Identify areas where focused support or intervention is required to improve each child's learning and development			✓
	Recognise bi- and multi-lingualism as an asset and support these children to maintain their first language and learn English as a second language			✓

Practice VEYLDF Principles		Yes	Partially	No
Practice Principle: Equity and diversity (cont.)	Promote cultural awareness in all children, including greater understanding of ATSI ways of knowing and being			✓
	Support children to develop a sense of place, identity and a connection to the land			✓
	Encourage children as active participants for sustainability, influencing the quality of life now, and for future generations			✓
Practice Principle: Respectful relationships and responsive engagement	Early childhood professionals understand, communicate and interact across cultures		✓	
	Give priority to warm, respectful relationships between professionals and children		✓	
	Encourage and support children to have respectful relationships with other children and to teach and learn from each other	✓		
	Interact with children to extend their learning in a variety of ways	✓		
	Listen and respond to children with full attention, engaging in 'shared, sustained thinking'	✓		
Practice Principle: Integrated teaching and learning approaches	Engaging with children in play	✓		
	Combine guided play and learning, adult-led learning, and child-directed play and learning	✓		
	Having conversations and interactions that support learning	✓		
	Planning experiences to deepen and extend children's knowledge, understanding and skills	✓		
	Differentiating learning opportunities for individual learners	✓		
	Planning a balanced curriculum using all five Learning and Development Outcomes	✓		
	Creating physical environments that promote learning		✓	
Practice Principle: Reflective practice	Gather information that supports, informs, assesses and enriches decision-making about appropriate professional practices			✓
	Continually develop their professional knowledge and skills to enable them to provide the best possible learning and development opportunities for all children		✓	
	Promote practices that have been shown to be successful in supporting children's learning and development	✓		
	Use evidence to inform planning for early childhood experiences and practice	✓		
	Challenge and change some practices	✓		

Appendix B



Appendix C

Evidence of relational agency in Inquiry to Implementation Project networks (Fleer, Duhn & Harrison, 2017)

Phases	Key idea	Description
Foundational	Building a sense of belonging to a network	A sense of belonging to a network is critical for all levels of engagement – personal and professional.
Phase 1	Finding out about each other's services	Network members find out what each other member is doing.
Phase 2	Engaging in a common experience or process	Network members engage in a common experience of reflection, the development of a professional inquiry, and discussions about the VEYLDF and EYLF.
Phase 3	Building a common focus for the group	Network participants build a common focus by discussing the VEYLDF and EYLF and children's 'learning'.
Phase 4	Building a common language	Network participants develop a common language through discussing the VEYLDF in relation to service types, individual inquiries, agreed outcomes and what assessment evidence might be.
Phase 5	Aligning one's own interpretations with those of others	Network participants discuss individual professional inquiry outcomes and support each other with reflections and analysis, with a level of understanding about each other's practices.
Phase 6	Thinking about one's own professional expertise and contribution in relation to what others with different disciplinary/ community knowledges and practices bring	Network participants discuss individual professional inquiry outcomes linked to longstanding challenges or needs for their region, using common language established earlier.
Phase 7	Enhanced professional practice where one's own contributions are viewed as part of the collectively identified professional inquiry or need	Network participants build and implement a collective professional inquiry linked to the longstanding challenges or needs of their region.

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