

# Using video to improve pre-service teacher understanding of children under three: renewing the curriculum

Final Report 2014

Griffith University

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<U3Vid.com.au>



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## Acknowledgements

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The project team would also like to thank all participants in the study, including the future 450 early childhood teachers, 22 participants in the workshops and the four members of the reference group, for their active engagement and participation, and for allocating time to this project.

## List of acronyms used

ACECQA	Australian Children's Education and Care Quality Authority
ATEA	Australian Teacher Education Association
COAG	Council of Australian Governments
DEEWR	Department of Education, Employment and Workplace Relations
ECD	Early Childhood Development
ECEC	Early Childhood Education and Care
EYLF	Early Years Learning Framework for Australia
HERDSA	Higher Education Research and Development Society of Australasia
LMS	Learning Management System
NQS	National Quality Standards
OECD	Organisation for Economic Co-operation and Development

## Executive summary

The journey to become an early childhood teacher involves mastery of particular knowledge and skill sets that are the basis for quality practice (Ryan & Grieshaber, 2005). It is recognised that early childhood teacher education programs can greatly influence the ways that graduate teachers subsequently impact on the nature and quality of young children's interactions and experiences in early childhood settings (Ackerman, 2005).

Within early childhood teacher education one area that has not been as well articulated is early development, which is the care and education of infants and toddlers (Recchia & Shin, 2010). While the range of early childhood teacher education programs generally claim to address the range for children from birth to eight years of age, typically they do not adequately address the earliest years (Recchia & Shin, 2010) with focus generally on learning about children from three to eight years of age (Ray, Bowman & Robbins, 2006). This was confirmed in a recent study exploring content in early childhood teacher education programs in Australia (Garvis et al., 2013).

The four Australian institutions involved in this study offer early childhood teacher education programs that are approved by state teacher registration bodies (Queensland and Victoria), and the Australian Children's Education and Care Quality Authority (ACECQA). Some Early Years programs are focused on education in the formal years of schooling and the year before formal schooling commences (e.g. kindergarten). Thus, pre-service teachers have few opportunities for learning about children from birth to three years of age, which results in less focus on theoretical and practical knowledge about infancy and early development.

This project targeted this gap by providing an online learning resource <U3Vid.com.au> for early childhood teacher educators and pre-service teachers to utilise in order to gain knowledge and experience for the education and care of very young children. The online resource aligns with the development of the national Early Years Learning Framework for Australia (DEEWR, 2009) that guides educational expectations for the Early Years. The online resource implemented the educational expectations of young children into all areas of student learning and provided criteria for professional understanding.

Approximately 450 pre-service teachers enrolled in programs in four tertiary institutions engaged with the online resource. Teacher educators from each of the institutions were also involved with delivering the U3Vid website. Regular workshops were held with key stakeholders in Victoria and Queensland (government agencies, professional teacher organisations, early childhood services, higher education institutions) to share new knowledge and understanding regarding the project. A collaborative community was developed that allowed open dialogue about shared commitments to improving early childhood education for children aged birth to three years through improvements in teacher education. In addition, a reference group was established to provide regular feedback on the project.

In November 2013 an evaluation of the online resource was conducted with the pre-service teachers across all institutions, teacher educators and participants at the workshops. The evaluation consisted of online surveys and semi-structured interviews. Key findings were:

- All pre-service teachers who completed the online survey (N=136) recommend the U3Vid website to other early childhood educators
- All pre-service teachers agreed that the website has improved their knowledge and understanding about young children aged birth to three years and improved their understanding about the Early Years Learning Framework and the National Quality Standards
- Twenty-five per cent of pre-service teachers would consider working with this age range in the future after engaging with the U3Vid website

- Teacher educators found the online resource extremely helpful and congratulated the focus on the Australian context. Teacher educators would continue to use the online resource and would like to see it developed further
- Key stakeholders who attended the workshop wanted to implement the website into the professional learning of current early childhood educators throughout Australia. Members affirmed the value of the website with videos and the reflective tools to address a gap in the pre-service teachers education.

The project has therefore achieved the outcomes of:

- Development of an Australian website that hosts video interactions (child-teacher), provides reflective practice tools and allows online discussion that contributed to the development of the theoretical and practical knowledge about infancy and toddlerhood in a community-of-learners approach. The website was included in early childhood teacher education courses at each of the project partner universities (Queensland and Victoria)
- Through engaging workshops, the project allowed in-depth collaboration between the project institutions and key stakeholders (government agencies, professional teacher organisations, higher education sector) in Queensland and Victoria on curriculum renewal. A research group was established to continue improvement of early childhood teacher education, to develop a national perspective on the education theory and practice for children from birth to three years of age. The group is called *Knowledge Communities for Early Childhood* and meets regularly in Melbourne and Brisbane
- Findings from the project have been disseminated in workshops, conference presentations and journal articles.

Recommendations from key stakeholders, teacher educators and pre-service teachers suggest the online website is highly useful for Australian early childhood teacher education and must be available beyond the completion of the project. Key stakeholders would also like to consider the use of the U3Vid website for their own needs of providing professional learning opportunities for current early childhood educators. The project team recommend:

- Further development of video interactions and reflective tools on the website. Given that this was a seeding grant, only a small amount of video interactions were possible. It is recommended that further funding be sought to develop the U3Vid website further to meet the needs of early childhood teacher education in Australia
- The website is designed to act as a point of dissemination of current research and teaching regarding early childhood teacher education for birth to three years in Australia. It is recommended that resources be allocated to enable the site to serve as a clearing house of relevant literature and hence become the hub for this gap in knowledge and practice in the field
- Build a stronger collaboration with higher education institutions by extending engagement outside of Queensland and Victoria and thereby develop a national perspective of Australian early childhood teacher education for toddlers and infants
- Supporting the integration of the U3Vid website into teacher education curriculum to enhance pre-service teachers' exposure to birth to three years of age pedagogical decision, space, and understanding of the role of educators to support learning and teaching
- Raising the profile of early year's educators who work in birth to three year old learning environments within teacher education to influence future educators.

The U3Vid website has provided a much needed online resource for Australian early childhood teacher education in order to focus on understanding the pedagogy and curriculum associated with children aged birth to three years. The grant has allowed the trialling of the online resource and shown a growing need for the website to be developed further and made available to a wider community.

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## 1.0 Introduction

*Teacher preparation for infant and toddler caregivers cannot be “adequately addressed through standard, content-focused training” but must take place in a process-oriented environment (Manning-Morton, 2006, p. 46).*

### Background to the project

Over the past decade and a half, a rapid growth in early childhood education and care provision has occurred in Australia. Simultaneously, there has been greater attention by governments around the world to invest in the years prior to compulsory schooling based on research claims that increased spending in the before-school sector reduces costs to society later in time (OECD, 2006).

In 2007, the Commonwealth Government responded with a higher level commitment to improve the quality and provision of early childhood education and care. A key initiative was the endorsement of the *National Early Childhood Development Strategy—Investing in the Early Years* in 2009 by the Council of Australian Governments (COAG). The strategy is explained to be a “collaborative effort between the Commonwealth and the state and territory governments to ensure that by 2020 all children have the best start in life to create a better future for themselves and for the nation” (COAG, 2009). The Strategy proposed six priority areas for change to be further developed for COAG in 2010, recognising the different starting points of states and territories and as resources allow (DEEWR, 2011). These strategies are to:

- strengthen universal maternal, child and family health services;
- provide support for vulnerable children;
- engage parents and the community in understanding the importance of early childhood development;
- improve early childhood infrastructure;
- strengthen the workforce across early childhood development (ECD) and family support services; and
- build better information and a solid evidence base.

The Council of Australian Governments also agreed to a *National Quality Framework for Early Childhood Education and Care* in 2010, which established a National Quality Standard from 2012 to ensure high quality education and care is consistent across all states and territories.

An important area for change in the early years has been raising the standards of qualifications of early childhood educators. This was formalised in the National Quality Framework (2009). The requirements are explicit, and require by 2014 that:

- half of all staff at every long day care centre or preschool must have (or be working towards) a diploma level early childhood qualification. The remaining staff will all be required to have (or be working towards) a Certificate III level early childhood education and care qualification.
- An early childhood teacher will be required as part of the staffing establishment in long day-care and preschool services for 25 children or more. Additional early childhood

teachers will be required for larger services by 2020.

- Family day care coordinators will need to have a diploma level early childhood education and care qualification and family day carers must have (or be working towards) a Certificate III.

The Government initiatives were based on research that links higher qualifications of early childhood staff to improved outcomes for children. Early childhood teachers with higher-level qualifications are more likely to engage in appropriate interactions that are sensitive, responsive and engaged (Norris, 2010). This has been linked to greater staff-initiated learning, and staff more engaged in play and social interactions with children (McMullen & Alat, 2002).

Despite the improvement in teacher qualifications, the requirement to have a qualified early childhood teacher may work as a counter-force to providing all children in long day care with quality education and care. An underlying assumption with current policy reform has been that degree-qualified teachers will work with children under three years of age through a leadership and mentoring role, however government requirements demand that qualified teachers work with pre-school aged children (Rouse, Morrissey & Rahimi, 2012). Previous research suggests that qualified teachers in childcare centres end up working with older children, while diploma and certificate qualified educators (or sometimes unqualified staff) work with the younger children (Ireland, 2006; Norris, 2010; Rouse, 2008). There is also some evidence that pre-service early childhood teachers prefer to work with older children as opposed to younger children (Nolan & Rouse, 2013). This may reflect the low professional status of teachers working in child care along with salary and other industrial conditions. The professional status of teachers in childcare settings is not comparable to that of teachers in school settings, with a widespread perception that teachers in childcare are not 'real' teachers (Ali, 2009; Sumsion, 2007). Ireland (2006) also notes that there is not a strong tradition of teachers being involved in infant/toddler programs across Australia.

The role of an early childhood teacher is recognised to be increasingly complex and demanding (Pianta & Hamre, 2009). Furthermore, Sims (2010) notes that because society is increasingly complex and demanding, early childhood educators of the next decade will face different work situations from those experienced now, adding to this complexity.

The journey to become an early childhood teacher involves the mastery of particular knowledge and skills that form the basis for quality practice (Ryan & Grieshaber, 2005). Research suggests that early childhood teacher education programs strongly influence the way that future early childhood teachers impact on the nature and quality of young children's interactions and experiences in early childhood settings (Ackerman, 2005). In guiding young children's development and learning, pre-service teachers need to learn three broad areas of knowledge including: early childhood foundations; domain-specific curriculum content; and issues related to working with families and working with children from diverse linguistic and cultural backgrounds (Copple & Bredekamp, 2009).

Traditionally, early childhood teacher preparation programs provide opportunities for pre-service teachers to practice new teaching skills in the field as a critical factor for promoting and enhancing a teacher's ability to influence children's development and learning in a positive way (Hyson, Tomlinson & Morris, 2009). This allows pre-service teachers opportunities to link their theoretical and practical knowledge and develop wisdom.

While there is extensive research relating to the professional experience of primary and secondary pre-service teachers (Moody, 2009), very little is known about pre-service early childhood teachers' experiences, especially with young children under three years of age (Recchia & Shin, 2010). Rouse, Morrissey and Rahimi (2012, p.87) suggest that "this represents a gap in knowledge", particularly in the Australian context, where in some states pre-service early childhood teachers must successfully complete an infant/toddler (birth to two year) professional experience placement to achieve registration as an early childhood

teacher. Agbenyega (2012, p.142) notes that “as pre-service early childhood teachers do not know what to expect in child care and kindergartens, a transformational approach to teacher preparation is crucial for preparing them to adapt to changing pedagogical and contextual situations”. Reflecting on his study in an Australian university, Agbenyega (2012) concluded that more work was needed to support early childhood pre-service teachers to engage and use theory to inform their practice, especially with professional placements.

In order to challenge these previously held assumptions, early childhood pre-service teachers need to learn about the capacities of infants through meaningful interactive experiences in high-quality infant settings (Recchia & Shin, 2010). Manning-Morton (2006, p.45) argues that skills required for infant and toddler caregivers are highly specific, and include a “broad theoretical knowledge, a deep understanding of individual children and a high level of self-awareness”. Moreover, teacher preparation for infant and toddler caregivers cannot be “adequately addressed through standard, content-focused training” but must take place in a process-oriented environment (Manning-Morton, 2006, p. 46). For this reason, it is important to develop learning processes that prepare pre-service teachers for interactions with the supervising teacher, the child and the family, that allow knowledge to be jointly constructed and specifically crafted for the appropriate age range (Recchia & Shin, 2010). This approach to early childhood teacher preparation has been documented as effective in Sweden for inducting pre-service teachers, where learning is related to practical exercise, observation, and reflection between the pre-service teacher and the supervising teacher (Johansson & Sandberg, 2011).

Research in the United States suggests professional experience with children under three also provides enhanced learning opportunities for pre-service teachers in early childhood teacher education. Results from a United States study found that experiences with infants created opportunities for early childhood pre-service teachers to re-think their existing beliefs about infants’ capacities and capabilities, with Recchia and Shin (2010, p.144) advocating that as pre-service teachers learned the power of observation and understood the unique ways in which infants communicate, they came to regard infants as powerful social beings “who taught them something quite meaningful about being an early childhood teacher”.

In a recent Australian survey of early childhood pre-service teachers in one Australian institution, Rouse, Morrissey and Rahimi (2012) noted many comments from students dissatisfied about the infant/toddler professional practice experience (practicum) in which they had engaged. They noted that many of the pre-service teachers already felt they possessed skills, knowledge and experience in working with this age group, with aspirations to work with older children. Rouse, Morrissey and Rahimi (2012, p.97) concluded that “as it currently stands, the infant/toddler practicum, while essential in building competent early childhood teachers, is problematic and a challenge for the field”.

Agbenyega’s (2012, p.142) study of an Australian university noted that “as pre-service early childhood teachers do not know what to expect in child care and kindergartens, a transformational approach to teacher preparation is crucial for preparing them to adapt to changing pedagogical and contextual situations”. Such a transformation also includes the understanding of the holistic child, consisting of a shared understanding of children’s capabilities from birth. By allowing pre-service teachers to experience the learning of infants and toddlers, they are able to connect their learning and understanding of young children across all early childhood settings, linking understanding of how children transition between prior to formal and formal schooling.

An investigation of early childhood teacher education programs by Garvis et al. (2013) highlighted differences in the delivery of theoretical and practical experiences with infants and toddlers. Findings suggest that only a handful of institutions across Australia provide early childhood teacher education that includes an entire semester of study on birth to three years. The analysis by Garvis et al. (2013) found many gaps in the knowledge, professional experience and assessment of pre-service teachers engaged in Bachelor of

Education early childhood programs across Australia. Thus there is a need in Australia for curriculum renewal for early childhood teacher education, specifically addressing the deficit of knowledge and practice related to the birth to three year old range.

## Project aims

*“By providing videos of interaction between infants/toddlers and teachers, pre-service teachers were able to develop an understanding of effective early childhood education and care for children from birth to three years of age.”*

In order to challenge assumptions that children from birth to 12 months of age are incapable and dependent (Cannella, 1997) accompanied with the underestimation of their potential as learners, this project aims to highlight their strengths by providing video of child-teacher learning interactions to teacher educators. The video generated highlights the capacities of infants through meaningful interactive experiences in high-quality infant settings (Recchia & Shin, 2010). By providing the video in an online forum, a resource is provided that contributes to the achievement of the goal to extend early childhood teacher education programs ability to connect theory and practice of these young children.

Student engagement in the higher education context is increasingly under pressure to engage with digital interfaces, with many higher educational policies and practices supporting new technologies. By engaging with the online learning space through the establishment of a secure website where videos are presented and accompanied by a discussion forum, varying levels of learner capabilities as digital natives (Herrington & Herrington, 2006; Howe & Strauss, 2003; Keengwe, 2007; Bennett, Maton, & Kervin, 2008; Helsper & Eynon, 2009; Corrin, Bennett & Lockyer, 2010) are supported.

Video, or moving image, plays a significant role in today's education (Kaufman, 2009; Dong, Li & Wang, 2010) and can support effective student learning and student engagement through “interactive, viewer-paced watching combined with compositional power ... [to] lead to high levels of reflective thought” (John & Wheeler, 2007, p.4). It is a medium that is engaging for learners (Lemon et al., 2013) and supports interaction, exploration, linkage across topics, and investigation (Laurillard, 2002) particularly when paired with online discussion capacity.

In this project, we see video as a way to capture learners interests in relation to early years birth to three year old theory and concepts that supports them in being able to “follow their own line of investigation” (Laurillard, 2002, p.124) while also participating in online discussion that provides a learning process that develops relationships in a professional value-loaded context (in this case, early childhood). Video can provide a simulation that engages students and asks them to reflect on a work related task (Colasante, 2011). “The more explicit connections between higher education curriculum content and the video content itself, the more relevant the video interactions become for the viewer” (Lemon et al., 2013, p.188).

This project offered important deliverables and outcomes to the early childhood sector. By providing videos of interaction between infants/toddlers and teachers, pre-service teachers were able to develop an understanding of effective early childhood education and care for children from birth to three years of age. The outcomes that were specific to the early childhood sector included:

- The enhanced curriculum meets the demand for a curriculum focus in early childhood teacher education that acknowledges the importance of unique pedagogy and curriculum for children from birth to three years of age.
- The enhanced curriculum aligns with the National Priority (Healthy Start to Life) and the

National Quality Framework for Early Childhood Education and Care (COAG, 2009). The enhanced curriculum provides professional development opportunities for other educators interested in early childhood curriculum development for children from birth to three years of age.

The key findings from the project will be disseminated to key stakeholders and the academic community through conference presentations at Higher Education Research and Development Society of Australasia (HERDSA) 2014 and Australian Teacher Education Association (ATEA) 2014, and in the *Australasian Journal of Early Childhood*, *Journal of Early Childhood Teacher Education* and *Journal of Higher Education*. Long-term sustainability of curriculum renewal will be promoted by encouraging other early childhood teacher education program providers across Australia to become involved in the next iteration of the online resource.

There were five major outcomes that were specific to the project partner universities. These included:

- A renewed curriculum for a national focus on children from birth to three years of age in early childhood teacher education courses that enhance pre-service teacher understanding of young children that supports the National Quality Standard for Early Childhood Education and Care and School Age Care.
- The *Griffith University Graduate Attribute* of applying skills and knowledge about early childhood education in the workplace be embedded within the online resource.
- The *Deakin University Graduate Attributes* and the *LIVE the future: Agenda 2020* be embedded within the online resource to improve the pedagogical knowledge, content knowledge and technological knowledge of pre-service teachers studying early childhood education courses.
- The enhanced curriculum (by embedding the online resource and teaching developmental pedagogy) transcend Australian (state and territory) and international boundaries and enable teacher educators and pre-service teachers to collaborate in open dialogue and create a shared understanding of the early childhood profession.
- The online resource be available to teacher educators and pre-service teachers of the three project partner universities by using innovative technology (e.g., cloud technology) to establish a cross-institutional community of practice. Subsequently, this promotes enhanced collaboration and communication between higher education providers towards improving the quality of early childhood teacher education and raising the profile of early childhood professionals who work with children from birth to three years of age.

## Project team

### *Griffith University*

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### *LaTrobe University*

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### *Deakin University*

Dr Hoi Yin Bonnie Yim (BA Hons, MPhil, PGDE, PhD).

## Project advisors

A reference group was established to provide continual advice and feedback to the project team. The reference group consisted of national and international early childhood teacher education academics and representatives from professional industry organisations.

Members were:

Dr Barbara Chancellor, Program Director Early Childhood Education, School of Education RMIT University

Dr Marg Sellers, Early Childhood Education, School of Education RMIT University

Prof Marjory Ebbeck, Emeritus Professor, School of Education, University of South Australia

Dr Maria Lee, Vice-President, The Pacific Early Childhood Education Research Association (PECERA) (Hong Kong).

## Project participants

*“Around 450 Australian pre-service teachers took part in the project.”*

The project participants were pre-service teachers studying early childhood teacher education at Griffith University, LaTrobe University, RMIT and Deakin University. Students were involved in Bachelor programs, Graduate diploma programs and Master programs. Around 450 Australian pre-service teachers took part in the project across the two states. The videos and template were also trialled overseas (around 20 international pre-service teachers). Program involvement is listed below in Table 1.

**Table 1 Program Involvement**

University	Program
Griffith University	<ul style="list-style-type: none"> <li>Bachelor of Education (early childhood)</li> <li>Bachelor of Education (primary)</li> <li>Graduate Diploma of Early Childhood Education (diploma entry)</li> <li>Graduate Diploma of Early Childhood Education (direct entry)</li> </ul>
LaTrobe University	<ul style="list-style-type: none"> <li>Bachelor of Education (early childhood)</li> </ul>
RMIT	<ul style="list-style-type: none"> <li>Bachelor of Education (early childhood education)</li> </ul>
Deakin University	<ul style="list-style-type: none"> <li>Bachelor of Early Childhood Education</li> </ul>
Oslo and Akershus University College of Applied Sciences	<ul style="list-style-type: none"> <li>International Master of Early Childhood Education and Care (Erasmus Mundus)</li> </ul>

Workshops were held in Melbourne and Brisbane to liaise with key stakeholders about the project. The group also created a shared focus of developing a curriculum and pedagogy for infants and toddlers that was appropriate for the Australian context. Stakeholders consisted of early childhood professionals, professional organisations, TAFE, university sector, government sector and families. Workshops are listed below in Table 2.

**Table 2 Workshop Events**

Event date	Event title, Location (city only)	Brief description of the purpose of the event	No. of participants	No. of Higher Education institutions represented	No. of other institutions represented
26/06/13	Melbourne	Website Launch and Round Table Discussion	20	6	4
15/07/13	Brisbane	Website Launch and Round Table Discussion	15	6	3
14/11/13	Melbourne	Professional Identity Development of Early Childhood Educators Discussion	12	5	4
27/11/13	Brisbane	Professional Identity Development of Early Childhood Educators Discussion	13	4	3
06/02/14	Brisbane & Melbourne (via video conference)	Reflective Practice for Professional Identity—discussion on sustainability of curriculum renewal across Australia			

## 2.0 Project approach

This project facilitated the recording and broadcast of ten videos of interactions between infants/toddlers (from birth to three years of age) and early childhood educators. The videos were created to allow pre-service teachers to critically reflect on professional practice.

The video interactions were posted online on a secure website (<U3Vid.com.au>) that was made available for pre-service teachers enrolled in courses at the four project partner universities. A snapshot of the website is shown in Figure 1.



**Figure 1** Screen Shot of U3Vid

Pre-service teachers enrolled in early childhood teacher education courses were asked to observe and reflect on the videos. Reflections were guided by the learning outcomes and principles in the Early Years Learning Framework (DEEWR, 2009), a national framework for early childhood education.

During the teaching semester, videos of young children were shown to the pre-service teachers. When the pre-service teachers observed the video (one video a week), they were asked to complete a Reflective Template that had been specifically developed to enable reflection utilising the theoretical framework of Blooms' revised taxonomy. Reflecting on the videos was designed to encourage higher order thinking. The process consisted of six stages (Anderson & Krathwohl, 2001, pp. 67-68):



- Remembering: Retrieving, recognising, and recalling relevant knowledge from long-term memory.
- Understanding: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarising, inferring, comparing, and explaining.
- Applying: Carrying out or using a procedure through executing, or implementing.
- Analysing: Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.
- Evaluating: Making judgments based on criteria and standards through checking and critiquing.
- Creating: Putting elements together to form a coherent or functional whole; reorganising elements into a new pattern or structure through generating, planning, or producing.

These stages were combined with the Early Years Learning Framework for Australia (DEEWR, 2009) to develop higher order thinking regarding early childhood education and care. The reflective template is listed below in Table 3.

**Table 3      Template to enhance reflective practice**

Bloom's Revised Taxonomy	Template Prompt
6. Creating	Producing a question on their own practice or the centre's practice for further improvement
5. Evaluating	Monitoring and connecting: Reflecting on EYLF, video and own experience (Practice principles)
4. Analysing	De-constructing and integrating with EYLF Outcomes
3. Applying	Beginning to link to EYLF: Can you classify (with the outcomes and principles)?
2. Understanding	Interpreting the observation: Can you explain the events in the observation?
1. Remembering	Focus of observation

Reflections by the pre-service teachers were posted online. The pre-service teachers were then scaffolded by early childhood teacher educators to develop a deeper understanding about early childhood pedagogy. Pre-service teachers were located in two states. The intention was to create an open dialogue to share ideas and build knowledge together as part of curriculum extension and renewal to improve understanding of children from birth to three years of age. The online discussion provided opportunities for interaction and provided a learning process that developed relationships in a professional value-loaded context (in this case, early childhood). Participants in the discussion relied upon practices, procedures and reasoning, through which they produce social actions and make sense of the actions of others (Melander & Sahlström, 2009).

The effectiveness of the resources were continually evaluated by how closely pre-service teachers can align the resource with Early Years Learning Framework (DEEWR, 2009) in their observations and reflections.

Regular workshops were also organised with early childhood educators, professional organisations, higher education providers and government bodies to ensure the continual development of the resources were appropriate for the early childhood sector. Findings from the project were regularly shared and discussed to provide new insights into the

development of effective curriculum in early childhood teacher education.

To continue the discussion about curriculum and pedagogy for birth to three years, a twitter account was established to continue open dialogue between the project group, workshop participants and project participants. There are currently 73 people following, with around 92 tweets made. The twitter account is shown below in Figure 2.



Figure 2 Twitter account for U3Vid

## 3.0 Method

In the initial development of the project, videos were collected of infant/toddler interactions with an educator at a variety of early childhood settings. Consent was gained from all families and educators. A website was also secured and developed (U3Vid.com.au).

The project was designed around three stages; (1) development of a literature review, (2) pilot study during semester one and (3) implementation at all institutions in semester two. Ethical clearance was gained from all human ethics committees at each of the institutions.

### Stage 1: Literature review

A literature search was conducted to find what current academic literature exists on curriculum and pedagogy for contemporary early childhood with infants and toddlers (aged birth to 3 years). After consulting a range of databases, with search terms of 'infants, toddlers', only a handful of articles (13 in total) within Australia and around the world were located. The only curriculum for birth to three in the literature were based on a Montessori Approach, Steiner Approach, Resources for Infant Educators or Pickler method. Limited academic literature in Australia or overseas could be found on early childhood teacher education for infants and toddlers that explored interactions. This highlighted a major gap in the literature that this project would fill.

### Stage 2: Pilot study implementation and findings

A pilot study for the videos and reflective template was conducted at the end of semester one at Griffith University with 29 third year Bachelor of Education (Primary) students who were specialising in early childhood. The purpose of the pilot study was to gather opinions about the effectiveness of the Reflective Template and videos to assist respondents to enact reflective practice through the lens of the National Quality Standards.

Out of the 29 students in the course, 28 surveys were returned, providing a response rate of 96 per cent. All of the respondents were female. Age of the participants ranged from 20 years to 39 years. The majority of students were aged 20-29 years (80 per cent). All participants studied full time and were studying a Bachelor of Education (Primary). None of the students had experienced practicum with children aged birth to three years, although this is a focus of their qualification. Seven participants currently worked casually in the early childhood sector and one student worked part-time in the early childhood sector.

Demographic information were analysed using descriptive statistics, with reliance on frequency counts. Measures were found for mean. Open-ended questions were analysed using content analysis. Content analysis is "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use" (Krippendorff, 2004, p. 18). Coding for manifest content (Wallen & Fraenkel, 2001) was used, acknowledging what was directly written in the open-ended questions.

In the first section, participants were asked to rank their learning on a four point Likert scale (4 = strongly agree, 3 = agree, 2 = disagree, and 1 = strongly disagree). All students rated the videos and Reflective Template favourably, ranking with either a 3 or a 4 in agreement. Participants were asked to comment on learning outcomes, practice principles and reflective practice and their own perceptions of their own role (see Table 4).

**Table 4**      **Summary of participants' responses to video and Reflective Template use**

<i>After looking at the videos and using the template, I have a better understanding of...</i>	<b>Mean</b>
Young children's...	
1. learning outcomes from birth to three years	3.8
2. interactions with adults	3.8
3. interactions with their learning environment	3.8
EYLF (Early Years Learning Framework)...	
4. learning outcomes	3.8
5. practice principles	3.8
6. reflective practices	3.8
7. in regards to my role	3.8
NQS (National Quality Standard)...	
8. requirements of the 7 standards	3.7
9. in regards to my role	3.7
Educator's use of video to	
10. contribute to understanding of pedagogies	3.8
11. contribute to reflective practices	3.8
12. support learning opportunity via online learning environment	3.8
13. scaffold my deeper thinking	3.8
14. contribute to understanding roles of educators with young children	3.8

There was positive feedback regarding the U3Vid website and the online survey from the pilot study. No changes were made to the U3Vid website or the online survey.

### Stage 3: Implementation across all institutions

In semester two, the project was implemented at Griffith University, LaTrobe University, RMIT and Deakin University. At the end of the semester data were collected from pre-service teachers, university teachers and the workshop groups.

The online survey was sent to all of the 450 pre-service teachers who took part in stage three. The survey was aligned with the learning outcomes and practice principles from the EYLF and NQS for Australia (a copy is presented in Appendix A). 136 pre-service teachers completed an online survey consisting of Likert scales and open questions to measure changes in perceptions, beliefs and reflective practice. This provided a response rate of 30 per cent.

Demographic information were analysed using descriptive statistics including frequency counts and measures were found for mean. Open-ended questions were analysed using content analysis, which is "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use" (Krippendorff, 2004, p. 18). Coding for manifest content (Wallen & Fraenkel, 2001) was used, acknowledging what was directly written in the open-ended questions.

University teacher educators were also approached to provide written feedback about the usefulness and implementation of the resources. Each teacher educator involved was

emailed a list of open questions to respond to. These questions were analysed using content analysis approach. In total five teacher educators responded.

Data were also collected from six members who participated in the workshops. A semi-structured interview took place and lasted for around 30 minutes and was conducted over the phone. The interview was conducted by a research assistant who did not know the project team or the participant. This allowed a level of open discussion about the overall project. An interview schedule was created that was based around each of the project's aims. The interview schedule is presented in Appendix B. Data from the interviews were transcribed and analysed using content analysis.

The data from the pre-service teachers, university teacher educators and workshop participants allowed multiple voices to provide feedback about the resources thereby triangulating the evaluation of the resource.

## 4.0 Findings

### Voices of the pre-service early childhood teachers

#### Demographics

All of the 136 pre-service teachers who completed the survey across the institutions were domestic students ( $N=136$ ). The majority of pre-service teachers were aged 20-29 years (51 per cent), with 31 per cent aged 19 or below. The remainder of pre-service teachers were aged 30-39 years (15 per cent) and over 40 years (3 per cent).

The majority of pre-service teachers were studying full time (73 per cent), while 27 per cent of pre-service teachers studied part-time. The majority of students were also in their first year of study (65 per cent), with the remainder of students being represented in year two of study (8 per cent) and year four of study (27 per cent) to become a qualified early childhood teacher.

Some of the pre-service teachers had prior qualifications in early childhood education. Five pre-service teachers held a certificate, ten pre-service teachers held a diploma, 34 pre-service teachers held an advanced diploma. Overall, 36 per cent of the pre-service teachers held a qualification in early childhood education. This aligns with the finding that 32 per cent of the pre-service teachers sampled currently work in an early childhood service.

Of all the pre-service teachers who completed the survey, only three pre-service teachers reported that they had completed practicum experience with young children aged birth to three years during their early childhood teacher education program. Five pre-service teachers had received credit for previous experience in this age range and did not need to complete practicum experience. This findings suggests that the pre-service teachers involved in the study have had limited opportunities of engaging in professional experience with children aged birth to three years.

#### Perceptions about the U3Vid website

*"All of the pre-service teachers (100 per cent) recommend the U3Vid website to other early childhood educators."*

The 136 pre-service teachers were asked to reflect on their own learning and understanding of young children after engaging with the U3Vid website. Using a four point Likert scale (strongly disagree, disagree, agree and strongly agree), all students either agreed or strongly agreed with each of the questions regarding better understandings of young children learning, the EYLF, NQS and their role as an educator. Agreement with the statement regarding roles suggests pre-service teachers are now more aware of their role as a teacher of very young children and the national requirements in the NQS and the EYLF. Pre-service teachers also strongly agreed that they now understand the importance of reflective practice as an educator. A summary of the mean to each question is presented in

Table 5 below.

**Table 5**      **Summary of participants responses to U3Vid website**

<i>After looking at the videos via the U3Vid website, I have a better understanding of...</i>	<b>Mean</b>
Young children's...	
1. learning outcomes from birth to three years	3.54
2. interactions with adults	3.54
3. interactions with their learning environment	3.53
EYLF (Early Years Learning Framework)...	
4. learning outcomes	3.53
5. practice principles	3.52
6. reflective practices	3.53
7. in regards to my role	3.53
NQS (National Quality Standard)...	
8. requirements of the 7 standards	3.51
9. in regards to my role	3.52
Educator's use of video to	
10. contribute to understanding of pedagogies	3.53
11. contribute to reflective practices	3.54
12. support learning opportunity via online learning environment	3.54
13. scaffold my deeper thinking	3.54
14. contribute to understanding roles of educators with young children	3.54

The survey revealed very high levels of agreement from respondents that the videos and Reflective Templates had indeed enhanced their learning in the 14 areas investigated. On item 11, which asked respondents to note the level of agreement that the use of the template had 'contribute(d) to reflective practices', respondents provided a mean response of 3.54 on a 4 point scale, reflecting very high levels of effectiveness.

All of the pre-service teachers (100 per cent) recommend the U3Vid website to other early childhood educators. The reasons for recommendation included: the resource is Australian (77 per cent); it was clearly presented with lots of relevant images (9 per cent); the website was a good online learning tool (7 per cent); and the website was good for the early childhood community (7 per cent). This suggests the survey respondents found the website important to their own learning and valued the importance of an Australian focused online resource.

Pre-service teachers were asked to rank on a four point Likert scale (strongly disagree, disagree, agree and strongly agree) their level of agreement on specific features of the website. These are presented below in



Table 6.

**Table 6**      **Level of participants agreement with features of the website**

<i>How much do you agree with the following statement? The U3Vid website is...</i>	<b>Mean</b>
1. a resource space	3.53
2. a space where everyone is equal	3.53
3. a space to reflect with other educators	3.53
4. a space where I feel I belong	3.52
5. a space for me to discuss by using common language	3.52
6. a space that I can be involved in multiple discussion threads	3.54
7. a space that I can access any time and any where	3.52
8. a space I can gain from other perspectives	3.54
9. a space I can ask questions	3.54
10. a space to support my professional development	3.54
11. a space to discuss early childhood (birth to 3 years) with other educators across and within states	3.54

Overall the data suggests the website was perceived to be a useful space for learning in which participants could engage in multiple perspectives and feel respected and safe. The online environment also provided a safe space to ask questions and discuss content specific to young children aged birth to three years. The pre-service teachers also valued the important of being able to engage with educators in other states in an online space where they felt they were equal and belonged.

#### Identified top features of the U3Vid website”

*“I now actually understand why we observe and document.”*

Pre-service teachers were also asked to list what they thought the top features of the U3Vid website were in open ended questions. The key features listed was that the U3Vid website was Australian, accessible and the videos were highly useful and engaging. The majority (67 per cent) of pre-service teachers commented on the importance of an online resource that also had links to social media.

In regards to engagement with the website, pre-service teachers were asked to list key features about the content. The pre-service teachers responses about the content could be grouped into five areas. These were:

- The content allowed me to engage in reflective practice (65 per cent)
- The content allowed me to learn about interactions (14 per cent)
- The content allowed me to learn about young children (9 per cent)
- The content allowed me to develop a better understanding of early childhood (10 per cent)
- The content allowed me to see good examples (2 per cent)

The participants were also invited to comment in an open-ended question about the importance of the Reflective Template. Forty-two participants commented that the template allowed them to understand the importance of observation and how to use

observation data for documentation. One participant made the following comment:

*I now actually understand why we observe and document. Previously I thought it was just about the child but now I realise it is also about me. I need to engage in a higher level of reflective practice as an educator with young children.*

The videos facilitated engagement with real world contexts and provided windows of opportunity into a range of early childhood contexts. The videos allowed students to connect their theoretical understanding with practical situations to allow reflective practice based on authentic learning scenarios. Pre-service teachers engaged in this approach to learning benefited from engagement, building understanding about possible early childhood contexts they could be involved in once they graduated.

Twenty-five participants also commented on the use of the Reflective Template to help them complete their assessment item. Their assessment item did not require them to use the template, but the participants suggested by using the template as an initial prompt they were able to gain a better understanding of the higher order reflective practice that was needed in their essay. One student stated:

*[I]n the first assessment we had to observe what quality was in three different early childhood services. I used the template to really help me focus and think about what was happening. I also think this helped me do well in the task as it scaffolded my knowledge and understanding to levels I hadn't experienced before.*

In this comment the participant also demonstrated reflection on personal growth in their own learning and understanding by being challenged to move to a higher level of analysis. A number of participants ( $N=46$ ) considered the tool to be a useful prompt to challenge their thinking about early childhood and allow them to continually think of ways to improve their own and an early childhood services' practices.

A deeper understanding about child development was also reported by some of the participants. Ten participants reflected on how the Reflective Template allowed them to better understand the developmental needs and planning required for quality education and care, for example, one participant commented that:

*I am starting to see how to understand the whole child. They have a family and a life outside of the early childhood service. I need to think about how I can support the child but also work in partnership with families. I need to have questions that allow me to think about what I am doing and if it can be improved.*

The comments which were provided in the open text responses confirmed the nature of the reflection that was enabled, including: the value of reflection to the tertiary student learner; the benefits to the students in order to gain a better understanding of the higher order reflective practice and thereby improve their own assessment practices; personal growth in students own learning and understanding by being challenged to move to a higher level of analysis; and better understanding of the developmental needs and planning required for quality education and care.

Overall the Reflective Template was reported to be a useful resource used in conjunction with the videos to help support the participants to engage in productive reflective practice. The structure of the template based on Bloom's Revised Taxonomy scaffolded higher order thinking for the pre-service teachers. That is, they were supported to think and reflect critically about videos that displayed interactions between teachers and young children in the field beyond surface level observations, for example at the level of remembering. Engagement with the template and videos also allowed the pre-service teachers to reconsider working with this age range as a registered teacher once they had graduated.

## Perceptions about working with children aged birth to three years

*Twenty-five percent of pre-service teachers would now consider working with this age range after engaging with the U3Vid website.*

The last section of the survey was designed to engage perceptions about working with children aged birth to three years. The following questions required open ended responses:

- Why do we need highly qualified educators working with children from birth to three years?
- What are the benefits of working with children from birth to three years?
- What are the challenges of working with children from birth to three years?
- List any suggested recommendations for change to attract and retain highly qualified educators working with children from birth to three years?

In regards to the first question, pre-service teachers were able to list attachment theory (61 per cent) as the major reason to have highly qualified staff working with children aged birth to three years. Other reasons were to have highly qualified staff who understood development (30 per cent) and to improve overall quality in early childhood settings you needed to have highly skilled professionals working with the youngest of children (9 per cent).

Pre-service teachers listed a range of benefits with working with children from birth to three years. The main benefit identified was the relationships with the child and family (58 per cent) that the educator could create. Pre-service teachers also identified the benefit of being able to watch and be involved in the child's development (24 per cent), being able to work with babies (11 per cent) and the importance of being the primary attachment for the young child (7 per cent). While there were benefits identified, pre-service teachers also identified a number of challenges to working with children from birth to three years.

The major barrier to working with young children reported by the pre-service teachers was poor wages (79 per cent). There was a perception that early childhood educators working with young children do not get paid appropriately considering they have a university qualification. Following perceptions of poor pay was the work being stressful (11 per cent) and a lack of respect for people working with very young children (5 per cent). A small group of pre-service teachers (5 per cent) reported nappy changes as a major barrier to working with this age range.

To reduce these barriers, pre-service teachers recommended three areas of major change to attract highly qualified educators to work with children from birth to three years. These were:

- Better pay for Bachelor qualified staff (71 per cent)
- Better respect and recognition (20 per cent)
- Better working conditions that were comparable to a kindergarten or primary school teacher (9 per cent)

These recommendations appear as structural barriers to entry into the profession of working with children from birth to three years. While the pre-service teachers appear to understand the importance of having qualified educators with very young children, structural barriers are an important element in the decision to enter into working with children aged birth to three years.

The project was interested to see if any of the pre-service teachers would consider working with very young children after engaging with the U3Vid website. Twenty-five percent of pre-service teachers would now consider working with this age range after engaging with the U3Vid website and developing a deeper understanding of young children. Seven students also shared aspirations of becoming a director of a Child Care centre once they had qualified as a registered teacher. One participant commented:

*I want to work in long day care with birth to three years. You get to see children experiencing a lot of 'firsts' –e.g., counting, dressing themselves, sitting up.*

The majority of participants who said they would consider working with very young children after graduation were currently working in the early childhood sector.

The remaining 75 per cent of pre-service teachers would not consider working with children aged birth to three years and would prefer to work in a kindergarten (15 per cent) or school (60 per cent). Pre-service teachers responded that working conditions and pay were large disincentives to working with very young children. A small group of participants highlighted the gaps between primary teacher salaries and the salaries of educators who work with very young children, even though the teacher would have the same Bachelor degree qualification. Other differences included the hours worked, holiday leave and general levels of respect.

## Voices of the teacher educators

The U3Vid website was implemented in the following subjects across degrees, subjects within teacher education, and year levels (Table 7):

**Table 7 Implementation of U3Vid website**

Institution	Which degree?	Which year level?	What subject?
Griffith University	Bachelor of Education (Early childhood specialisation) AND Graduate Diploma of Early Childhood Education	Year 1 and Year 4	Child development, Curriculum Perspectives in the Early Years, Contemporary Issues in Early Childhood Education
La Trobe University	Masters of Teaching (P-12)	Third trimester in the Year 1 (accelerated degree)	Methods of Teaching Early years—subject covers curriculum, method and pedagogy for teaching Prep to Year 4
RMIT University	Bachelor of Education (Early Childhood Education)	Year 3	Play Based Learning
Deakin University	Bachelor of Early Childhood Education	Year 2	Child development

Three major themes emerged after feedback from teacher educators about the online resource. These were: the importance of U3Vid as a pedagogical tool; the need for Australian resources for early childhood teacher education; and suggestions for the next stage of resource development. Each are discussed below.

### Importance of U3Vid as a pedagogical tool

The ease of being able to embed U3Vid website within university learning management systems (LMS) was acknowledged by the teacher educators as an important consideration in

the implementation of the online resource. One teacher educator commented:

*Although the subject was already very full, I feel that it is very important that teachers have an understanding of the learning that their students have experienced prior to schooling. In the LMS space where the online module the Early Years Learner was, I provided students with an overview of the U3VID and analysis framework and encouraged them to have a look and post reflections on a forum created in the subject. This complemented a discussion of transition to school and school readiness in the learning module.*

All of the teacher educators commented on the flexibility of the online resource to be used in a variety of pedagogical approaches. Teacher educators felt they had control to implement the resource as they considered relevant to the needs of the pre-service teachers and the learning outcomes of the subjects studied. Comments included:

*The videos have been used in different ways in the subjects. In the first year course they were used in lectures and workshops to provide insights for the students. The lecturer would then stop and discuss the interactions with the students. In the fourth year course the template and videos were an assessment item. Students were asked to provide a template for two of the videos and post online. The student had to also respond to another students post as part of the assessment item. In the Graduate Diploma of Early Childhood Education the videos and template were embedded into an online subject for the students to engage in an activity about National Quality Standards.*

*A large part of this course was about students becoming researchers and with that in mind, I drew their attention to U3Vid as a resource being created as part of a research process. I asked them to view it and make comments back to you. Most students have a Diploma of Children's Services, and therefore a lot of practical experience with children aged birth–3.*

The website was observed by all teacher educators as scaffolding reflection. The reflection was identified as deep and focused. As one teacher educator commented:

*I think it is a great resource and a great way to explore the in-the-moment learning of children and practices of teachers through the distance of video and the deeper reflection that this allows. I would love to have something like this to use for school teacher practices.*

Impact for the pre-service teachers from the teacher educator perspective was also shared. It was noted the Australian content was extremely beneficial as to the scaffolding of student reflection skills. One teacher educator reflected:

*The students have enjoyed having Australian videos that show moments in time. For some students they have never seen inside a long day care centre. For some student's currently working in long day care they have never seen examples of other long day care centres. The students found the videos and template engaging. They started to see the importance of reflective practice and view children and families differently. The videos also provided opportunities to discuss with other students how they could improve routines and transitions within the early childhood setting. The students suggested they would like access to the website after they graduate to continue having examples of practice and engaging in critical discussion.*

Overall the teacher educators considered the U3Vid website to be an important learning tool for Australian early childhood teacher education programs. All teacher educators would like to continue using the website and helping with further development of videos and reflective templates.

## Need for Australian resources for early childhood teacher education

Reinforcing the need to develop resources that are Australian-based in birth to three years was evident in comments made by the teacher educators who implemented the U3Vid website into the teacher education classes. For example, one teacher educator stated:

*There is a severe lack of resources such as this one in Australia and internationally. It is a very worthwhile resource to further develop. Well done Narelle, Susie and team. The forums you have conducted during this process have been enlightening and professionally engaging. Thank you!*

There was effective feedback shared that highlighted the impact of an Australian resource on the pre-service teachers. Notably was the acknowledgement by one teacher educator of how the U3Vid website assisted a holistic development and understanding of a child's learning journey:

*Four students in the fourth year early childhood subject were generalist primary education majors. They had enrolled in the early childhood subject as it suited their timetable. The students found it was the first time that had learnt about early childhood education in their primary education degree. The students realised that there was a learning Framework for young children in Australia, interactions and engagement are important with young children and the necessity to establish working relationships with families. The students wished they had this knowledge earlier in their primary teacher education degree so they could see the alignment of a child's learning journey from birth to the end of high school.*

## Suggestions for the next stage of resource development

Teacher educators were also asked to comment on suggestions for improvement for the next stage of the resource development. The teacher educators asked for more videos to be included, especially around young children's play and child-to-child interactions.

The teacher educators also made pedagogical suggestions for the implementation of the online resource. These were:

- Timing of the implementation of the resource. Teacher educators suggested implementing the resource at the start of the semester to allow pre-service teachers regular engagement in reflections to develop metacognitive thinking.
- Allowing pre-service teachers to provide feedback to one another's post during class time.
- Greater incorporation into the Learning Management System.
- Aligning the resource to contribute to an assessment task.

These suggestions will be considered in future developments of the U3Vid website.

## Voices of the workshop participants

Twenty-two people participated in the workshops. Six participants were interviewed about their involvement and project management. A summary of findings are listed in

Table 8.

Overall participants reported their involvement in the project to be highly beneficial and reciprocally valuable to their individual professional life and role – particularly noting the opportunities to network, expand thinking, read/discuss latest research and practices; and to think more critically about issues in Early Years. Participants suggested the project had the potential to raise awareness and profile of curriculum, teaching and learning practices and leadership and management process related to birth to 3 years. All participants were also interested in being involved in the future developments of the project and the continuation of the workshops for professional and personal development.



**Table 8**      **Summary of key findings from workshop participants**

Findings	Example of comment from participant
1. The project purpose and aims were clearly communicated and consistently reviewed/provided.	<i>Project purpose and aims were clearly communicated and consistently reviewed/provided.</i>
2. Participants had a clear sense of their role as active contributor to the project and were confident in participating in all activities.	<i>Clear links to participant's expertise, experience and professional interest. Confident of role to contribute and respond to/provide feedback on circulated readings and other professional documents related to the project's aim and purpose.</i>
3. Participants felt a clear link between their professional experience and expertise and the project purpose/aims; and beyond this felt that participation in the project was reciprocally valuable to their individual professional roles.	<i>In my work in curriculum development to support implementation of the EYLF / VEYLDF across the early years, this opportunity to take part was timely.</i>
4. Meetings and updates were consistently circulated and participants praised the expertise of the project leaders in facilitating the project and making them feel welcomed, valued and confident.	<i>I enjoyed both these opportunities and I think that the elegant approach to facilitation , supported collegiate thinking and professional exchange. For me, these sessions were useful as a form of supervision.</i>
5. Participants felt valued and respected by the project team, and found the team highly approachable, helpful and of reciprocal value to their individual professional roles.	<i>I felt very valued by every member of the project team. All members were very approachable and I felt confident about approaching them and/or contributing to project discussions and activities.</i>
6. The project team was knowledgeable in early childhood teacher education and able to share international perspectives.	<i>The project team – in particular Susie Garvis and Narelle Lemon were effective and knowledgeable and demonstrate a warm collegiate style and exemplary communication . It was useful to have a view of early childhood pedagogy from northern Europe ( Susie Garvis).</i>
7. Joint enterprise was high and facilitated by consistent communication and inclusion of participant's contributions to project activities and direction.	<i>Buy in by all members of the team and participants; particularly at round table sessions.</i>
8. The project facilitated collaboration of participants from varying contexts and cohesion was achieved through focus on shared ideas, practices, concerns and aspirations. This provided participants with a sense of professional satisfaction and benefit arising from their involvement.	<i>Despite initial queries from my 'line manager' I have learned a great deal about children prior to kindergarten, especially valued: receiving targeted readings the networking opportunities and the future possibilities of partnerships – particularly if we can do some work on transitions into kindergarten.</i>
9. Participants found levels of mutual engagement facilitated by the project to be very high. Notable one participant found her initial fears of having limited contributions to make immediately allayed.	<i>Initial concerns about being able to make a contribution (sufficient knowledge/experience?) were immediately allayed – I felt welcomed, valued, confident about offering alternative/contradicting views; my questions were welcomed and responded to; I was constantly invited to make a/felt I made a genuine contribution to the project's direction and focus.</i>

## Deliverables overall

The Early Learning Framework (DEEWR, 2009, p.10) explicitly highlights the importance of ongoing learning and reflective practice in conjunction with other important learning domains. The U3Vid website engaged with that priority, setting the goal to develop Australian-based early childhood online resources that could be used in conjunction with videos to provide authentic learning contexts. After exploring the voices of pre-service early childhood teachers, teacher educators and participants in the workshops, the project has achieved the following outcomes relevant to this goal:

- Development of an Australian website that hosts video interactions (child-teacher), provides reflective practice tools and allows online discussion that contributed to the development of the theoretical and practical knowledge about infancy and toddlerhood in a community-of-learners approach. The website was included in early childhood teacher education courses at each of the project partner universities (Queensland and Victoria).
- Through engaging workshops, the project allowed in-depth collaboration between the project institutions and key stakeholders (government agencies, professional teacher organisations, higher education sector) in Queensland and Victoria on curriculum renewal. A research group was established to continue improvement of early childhood teacher education, to develop a national perspective on the education theory and practice for children from birth to three years of age. The group is called Knowledge Communities for Early Childhood and meets regularly in Melbourne and Brisbane. The group has planned meetings in 2014.
- Findings from the project have been disseminated in workshops, conference presentations and journal articles. Findings have been presented at two national conferences and one international conference. Abstracts have been submitted to further share findings at 2014 conferences. One non-peer reviewed article has been accepted for publication. Another two journal articles and a book proposal are under review. Published journal articles will be uploaded to the U3Vid website as they become available.

Overall the U3Vid website has provided a much needed online resource for Australian early childhood teacher education for understanding the pedagogy and curriculum associated with children aged birth to three years. The OLT seed funding has allowed the trialing of the online resource and participants have reported a desire for the website to be developed further and made available to a wider community beyond the institutions involved in the project. It has also created a national research group of key stakeholders interested in improving early childhood teacher education.

## 5.0 Recommendations and sustainability

### Recommendations

Recommendations from key stakeholders, teacher educators and pre-service teachers suggest the online website is highly useful for Australian early childhood teacher education and must be available beyond the completion of the project. Key stakeholders would also like to consider the use of the U3Vid website for their own needs of providing professional learning opportunities for current early childhood educators. The project team proposes the following recommendations:

- Further development of video interactions and reflective tools on the website. Given that this was a seed grant, only a small amount of video interactions were possible. It is recommended that further funding be sought to develop the U3Vid website further to meet the needs of early childhood teacher education in Australia.
- The website is designed to act as a point of dissemination of current research and teaching regarding early childhood teacher education for birth to three years in Australia. It is recommended that resources be allocated to enable the site to serve as a clearing house of relevant literature and hence become the hub for this gap in knowledge and practice in the field.
- Build a stronger collaboration with higher education institutions by extending engagement outside of Queensland and Victoria and thereby develop a national perspective of Australian early childhood teacher education for toddlers and infants.
- Supporting teacher education nationally to integrate the U3Vid website into curriculum to enhance pre-service teachers exposure to birth to three years of age pedagogical decision, space, and understanding of the role of educators to support learning and teaching.
- Raising the profile of early years educators who work in birth to three year old learning environments within teacher education to influence future educators.

### Sustainability

The U3Vid website has been identified as a valuable resource for teacher education and the promotion of early years, specifically birth to three years curriculum. The website will be sustained via:

- Five year website subscription taken out to support access beyond the year 2013
- Development of additional videos that expand the website
- Integration of the website into teacher education subjects from the projects' universities and extend beyond to others
- Promotion of the website nationally and internationally at early years conferences.

## 6.0 Dissemination and communication of project activities

The project developed a strategy of continual dissemination and communication of findings throughout the duration of project and at completion of the project. These include:

### July 2013

- Presentation at Australian Teacher Education Association Conference in Brisbane.
- Presentation at Asian-Pacific Early Childhood Research Conference in South Korea.
- One journal article submitted and under review on reflective practice in early childhood education.

### November 2013

- Conference presentation at the Honoring the Child, Honoring Equity Conference in Melbourne (November 2013).
- Acceptance of non peer-reviewed article to *First Years*. The article discusses the importance of videos to understand children's interactions.
- Submission of book proposal on *Young Children and Technology* to Routledge.

### December 2013

- Feature article for Early Childhood Teacher's Association Newsletter highlighting the project.
- Submission of abstract for Early Childhood Australia Conference in Melbourne 4–7 September 2014.

### January 2014

- One journal article submitted and under review on professional identity.
- One journal article submitted and under review on the use of videos in early childhood teacher education.
- Submission of abstract for Higher Education Research and Development Society of Australasia Conference (July 2014).

### Proposals for 2014

- Conference presentation at Australia Teacher Education Association Conference.

## References

- Ackerman, D. J. (2005). Getting Teachers from Here to There: Examining Issues Related to an Early Care and Education Teacher Policy. *Early Childhood Research and Practice*, 7(1). Retrieved 2 March 2012 from Available: <http://ercp.uiuc.edu/v7n1/ackerman.htm>
- Agbenyega, J. (2012). How we view our theoretical competency: Early childhood pre-service teachers' self-evaluation of a professional placement experience, *Australasian Journal of Early Childhood*, 37(2), 141–147.
- Ali, C. (2009). *Impacts on the professional practice of kindergarten teachers working in long day care*. Unpublished Honours thesis, Deakin University, Victoria, Australia.
- Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's Taxonomy of educational objectives: Complete edition*, New York : Longman.
- Bennett, S., Maton, K., & Kervin, L. (2008). The 'digital natives' debate: A critical review of the evidence. *British Journal of Educational Technology*, 39(5), 775–786.
- Cannella, G.S. (1997). *Deconstructing early childhood education: Social justice and revolution*. New York: Peter Lang.
- Colasante, M. (2011). 'Using video annotation to reflect on and evaluate physical education pre-service teaching practice'. *Australasian Journal of Educational Technology*, 27(1), 66–88.
- Copple, C., & Bredekamp, S. (Eds.) (2009). *Developmentally Appropriate Practice in Early Childhood Programs Serving Children from Birth Through Age 8*. 3rd ed. Washington, DC: NAEYC.
- Corrin, L., Bennett, S. & Lockyer, L. (2010). *Digital natives: Everyday life versus academic study*. Proceedings of the Seventh International Conference on Networked Learning 2010 (pp. 643–650). Lancaster: Lancaster University.
- Council of Australian Governments. (2009). *National partnership on early childhood education*. Canberra: Australian Government.
- Department of Education, Employment and Workplace Relations (2009). *Belonging, Being & Becoming: The Early Years Learning Framework for Australia*. [http://www.deewr.gov.au/EarlyChildhood/Policy\\_Agenda/Quality/Pages/EarlyYearsLearningFramework.aspx](http://www.deewr.gov.au/EarlyChildhood/Policy_Agenda/Quality/Pages/EarlyYearsLearningFramework.aspx)
- Department of Education, Employment and Workplace Relations (DEEWR). (2011). *Early Childhood Policy Agenda*. Retrieved 9 September 2011 from [www.deewr.gov.au/Earlychildhood/Policy\\_Agenda/Pages/home.aspx](http://www.deewr.gov.au/Earlychildhood/Policy_Agenda/Pages/home.aspx).
- Dong, A., Li, H., & Wang, B. (2010). *Ontology-driven Annotation and Access of Educational Video Data in E-learning*. Retrieved March 16, 2012 from <http://www.intechopen.com/books/e-learning-experiences-and-future/ontology-driven-annotation-and-access-of-educational-video-data-in-e-learning>.
- Garvis, S., Lemon, N., Pendergast, D., & Yim, B. (2013). A Content Analysis of Early Childhood Teachers' Theoretical and Practical Experiences With Infants and Toddlers in Australian Teacher Education Programs. *Australian Journal of Teacher Education*, 38(9), 25 – 36, Article 3.

- Helsper, E.J. & Eynon, R. (2009). Digital Natives: Where is the evidence? *British Educational Research Journal* 36 (3) 503–520.
- Herrington, A., & Herrington, J. (Eds.). (2006). *Authentic Learning Environments in Higher Education*. Hershey: Information Science Publishing.
- Howe, N., & Strauss, W. (2003). *Millennials go to college*. New York: LifeCourse.
- Hyson, M., & Tomlinson, H.B., & Morris, C.A. (2009). Quality improvement in early childhood teacher education: Faculty perspectives and recommendations for the future. *Early Childhood Research and Practice*, 11(1). Retrieved 4 June 2012 from <http://eecrp.uiuc.edu/v11n1/hyston.html>.
- Ireland, L. (2006). *When babies have teachers: A study of how three community based children's services employ early childhood teachers in infant–toddler programs*. Paper presented at Australian Association for Research in Education (AARE) Conference, University of South Australia.
- Johansson, I., & Sandberg, A. (2011). Learning and knowledge development in preschool teacher education and practicum. *Early Childhood Development and Care, iFirst edition*, 1–14.
- John, P. D., & Wheeler, S. (2007). *The Digital Classroom: Harnessing the power of technology for the future of learning and teaching*. London: Routledge/David Falmer.
- Kaufman, P.B. (2009). *On the Utility and Uses of Video in Higher Education. Intelligent television video for culture & education*. Accessed March 15, 2012 from <http://www.intelligenttelevision.com/thinkpieces/article/on-the-utility-and-uses-of-video-in-higher-education/>
- Keengwe, J. (2007). Faculty integration of technology into instruction and students' perceptions of computer technology to improve student learning. *Journal of Information Technology Education*, 6, 169–180.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage.
- Laurillard, D. (2002). *Rethinking university teaching: a framework for the effective use of learning technologies*. (2nd ed.). London: RoutledgeFalmer.
- Lemon, N., Colasante, M., Corneille, K., & Douglas, K. (2013). *Video annotation for collaborative connections to learning: Case studies from an Australian higher education context* (Chapter 8, pp.181-214) . In Wankel, C. (Ed.). *Cutting-edge Technologies in Higher Education*, Vol 6F. Bingley, United Kingdom: Emerald Group Publishing Limited.
- McMullen, M., & Alat. K. (2002). Education matters in the nurturing of the beliefs of preschool caregivers and teachers. *Early Childhood Research and Practice* 4(2).
- Manning-Morton, J. (2006). The personal is professional: Professionalism and the birth to threes practitioner. *Contemporary Issues in Early Childhood*, 7(1), 42–52.
- Melander, H., & Sahlström, F. (2009). Learning to Fly – The Progressive Development of Situation Awareness. *Scandinavian Journal of Educational Research* 53(2), 151–168.
- Moody, J. (2009). Key elements in a positive practicum: Insights from Australian post-primary pre-service teachers. *Irish Educational Studies*, 28(2), 155–175.
- Norris, D. (2010). Raising the educational requirements for teachers in infant toddler

- classrooms: Implications for institutions of higher education. *Journal of Early Childhood Teacher Education*, 31, 146–158.
- OECD (2006). *Starting Strong II: Early Childhood Education and Care*. Paris: OECD.
- Pianta, R., & Hamre, B. (2009). Conceptualization, measurement, and improvement of classroom processes: Standardized observation can leverage capacity. *Educational Researcher*, 38(2), 109–119.
- Ray, A., Bowman, B. & Robbins, J. (2006). Preparing Early Childhood Teachers To Successfully Educate All Children: The Contribution of Four-Year Undergraduate Teacher Preparation Programs, *A Project of the Initiative on Race, Class and Culture in Early Childhood, Final Report to the Foundation for Child Development*, New York: New York.
- Recchia, S.L., & Shin, M. (2010). ‘Baby teachers’: how pre-service early childhood students transform their conceptions of teaching and learning through an infant practicum. *Early Years: An International Journal of Research and Development*, 30(2), 135–145.
- Rouse, E. (2008). *New directions for early childhood education: An analysis of the Rudd Government’s policy directions for early childhood education in Australia*. Melbourne: Victoria University.
- Rouse, L., Morrissey, A.M., & Rahimi, M. (2012). Problematic placement: pathways pre-service teachers’ perspectives on their infant/toddler placement. *Early Years*, 32(1), 87–98.
- Ryan, S., & Grieshaber, S. (2005). Shifting from developmental to postmodern practices in early childhood teacher education. *Journal of Teacher Education*, 56(1), 34–45.
- Sims, M. (2007). The determinants of quality care: Review and research report. In E. Hill, B. Pocock, and A. Elliot (Eds). *Kids count: Better early childhood education and care in Australia*, (pp.220–45). Sydney, NSW: Sydney University Press.
- Sumsion, J. (2007). Sustaining the employment of early childhood teachers in long day care: A case for robust hope, critical imagination and critical action. *Asia-Pacific Journal of Teacher Education*, 35, 311–327.
- Wallen, N. E., & Fraenkel, J. R. (2001). *Educational research: A guide to the process*. Mahwah, NJ: Lawrence Erlbaum

# Appendix A Survey evaluating online resources

You are invited to participate in a research project exploring the implementation of videos about young children to improve professional learning. If you agree to participate, it is estimated that it will take 15-20 minutes to complete this survey. Please note that we do not require your name in this survey, but you will be asked for some general demographic details to help compare groups. All responses will be kept strictly confidential and no information which can lead to the identification of any individual will be released. In line with the current University policy all information collected will be kept for five years in a locked filing cabinet at the university. Participation is voluntary. Thank you!

**1. What is your age?**

- ☐ 19 or below
- ☐ 20-29
- ☐ 30-39
- ☐ 40 and over

**2. What is your current enrolment status?**

- ☐ Domestic student
- ☐ International student

**3. What is your current HIGHEST qualification in early childhood education?**

- ☐ Certificate
- ☐ Diploma
- ☐ Advanced Diploma
- ☐ Associate Degree
- ☐ 3-year Degree
- ☐ Other (please specify)

**4. Have you undertaken practicum experience in birth-3 years in your current program/course?**

- ☐ Yes (go to Question 6)
- ☐ No (go to Question 5)

**5. If no, have you received credits for previous experience?**

- ☐ Yes
- ☐ No

**6. Current program/course:**

- ☐ Deakin University – Bachelor of Early Childhood Education (BECE)
- ☐ Griffith University – Bachelor of Education (Early Childhood Specialisation)/Graduate Diploma of Early Childhood Education
- ☐ RMIT – Bachelor of Education (Early Childhood Specialisation)/ Bachelor of Education (Early Childhood)
- ☐ La Trobe University – Bachelor of Education (Early Childhood Specialisation)/ Bachelor of Education (Early Childhood)



**7. Current level of study**

- ☐ Year/Level 1
- ☐ Year/Level 2
- ☐ Year/Level 3
- ☐ Year/Level 4

**8. Current study load**

- ☐ Part-time
- ☐ Full-time

**9. Current employment status in early childhood**

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Employed casual
- ☐ Out of work, but available for employment
- ☐ I am not working in the early childhood profession
- ☐ Other (please specify)

## Part B: this section is about your views on the U3Vid website.

How much do you agree with the following statements (Please select ONE answer for each statement)

### 10. After looking at the videos via the U3Vid website, I have a better understanding of young children's

	Strongly Disagree	Disagree	Agree	Strongly Agree
i. Learning outcomes from birth to three years				
ii. Interaction with adults				
iii. Interactions with their learning environment				

### 11. After looking at the videos via the U3Vid website, I have a better understanding of the EYLF (Early Years Learning Framework), specifically:

	Strongly Disagree	Disagree	Agree	Strongly Agree
i. Learning outcomes				
ii. Practice principles				
iii. Reflective practices				
iv. In regards to my role				

### 12. After looking at the videos via the U3Vid website, I have a better understanding of the NQS (National Quality Standard), specifically:

	Strongly Disagree	Disagree	Agree	Strongly Agree
i. Requirements of the 7 standards				
ii. In regards to my role				

### 13. After looking at the videos via the U3Vid website, I have a better understanding of Educator's use of video to:

	Strongly Disagree	Disagree	Agree	Strongly Agree
i. Contribute to understanding of pedagogies				
ii. Contribute to reflective practices				
iii. Support learning opportunity via online learning environment				
iv. Scaffold my deeper thinking				
v. Contribute to understanding roles of educators with young children				

**14. How much do you agree with the following statement? (Please select ONE response for each answer). The U3Vid website is...**

	Strongly Disagree	Disagree	Agree	Strongly Agree
i. A resource space				
ii. A space where everyone is equal				
iii. A space to reflect with other educators				
iv. A space where I feel I belong				
v. A space for me to discuss by using common languages				
vi. A space that I can be involved in multiple discussion threads				
vii. A space I can access anytime and anywhere				
viii. A space I can gain other perspectives				
ix. A space I can ask questions				
x. A space to support my professional development				
xi. A space to discuss early childhood (birth – 3 years) with other educators across and within states.				

**15. What benefits are you gaining from the U3Vid website, in relation to...**

i. Content	<input type="text"/>
ii. Assessment	<input type="text"/>
iii. Learning mode	<input type="text"/>
iv. Other	<input type="text"/>

**16. What would you rank as the top feature of the U3Vid website?**

**17. Would you recommend the U3Vid website to other early childhood educators?**

- ☐ Yes
- ☐ No

Please explain your response:

**18. To what extent has the U3Vid website encouraged you to consider working with young children (birth – 3 years)?**

**Part C: Your views on early childhood education and care (birth – 3 years).**

**19. Why do we need highly qualified educators working with children from birth to 3 years?**

**20. What are the BENEFITS of working with children from birth to 3 years?**

**21. What are the CHALLENGES of working with children from birth to 3 years?**

**22. List any suggested RECOMMENDATIONS FOR CHANGE to attract and retain highly qualified educators working with children from birth to 3 years.**

**23. Where would you like to be working after you graduate from the current program?**

Thank you for your help! By completing this survey you have made an important contribution to this research.

## Appendix B Survey of experiences in project

### OLT Innovation and Development Program – Seed Project 2012 Survey of Experiences from Project Participants/Stakeholders

**Project Title:** Using video to improve pre-service teacher understanding of children under three: renewing the curriculum

**Project Team:** (Garvis, Lemon, Yim & Pendergast)

**Thank you for being part of this OLT funded seed project!** The aim of the project was to develop innovative resources to enhance pre-service teacher understanding of children under three; and to stimulate and facilitate collaborative discussion of potential future directions for curriculum renewal within early childhood teacher education in relation to theory, knowledge and practice about infancy and toddlerhood in Australia.

An important task for the closing stages of this project is to gather information about your experiences of participating in the project —your thoughts on the processes used to engage you in the project activities, and your lived experiences of the project's capacity to achieve overall aims and objectives. This valuable feedback will contribute to the final evaluation of the project's effectiveness, and offer further guidance to the project team as they plan the next phase of this initiative and future related projects.

**These questions are about your general experiences of the project processes and activities:**

1. To what extent did you understand the project purpose and aims?
2. To what extent did you understand your role as a participant in the project's purpose and aims?
3. How would you describe the fit between your professional role/experience in the Early Childhood field and your role as a project participant?
4. What is your experience of the general organisation and implementation of project activities that involved you? These would include meetings, updates, and other activities.
5. What is your experience of working with the project team? These would include how approachable you found the team, how they responded to any concerns or challenges that were encountered, etc.
6. From your perspective as an active participant:
  - a. what were the factors that were critical to the success of this project?
  - b. what were the factors that may have impeded/impacted on the success of this project?
  - c. What were the general lessons learnt/including any reflections on the challenges/unexpected successes of the project?

**These questions are about the project's second aim, which was to *create and facilitate community of practice* centred on discussion and exploration of ideas related to curriculum renewal in early childhood teacher education:**

7. *On mutual engagement.* To what extent did you feel you were able to *engage* as an equal partner in the project activities? These would include: being able to contribute to discussions, being invited to offer alternative/differing opinions; having your

experiences and contributions valued; having your questions/clarifications responded to; having your knowledge and experiences contribute to the shaping of the project direction and outcomes.

8. *On joint enterprise.* To what extent did you feel the project enabled you and others to jointly negotiate and collaborate on the project discussion, focus and direction as activities unfolded? This would include: having your insights taken on board in the design/direction of discussion and project activities; an emerging sense of mutuality in the project activity – that the project activities were as helpful and valuable to you in your professional life as your participation was to the project outcomes.
9. *On shared repertoire.* To what extent did you feel the project brought together and highlighted those ideas, practices, knowledge, concepts, stories, shared challenges etc. that are important to your field and in turn offered opportunities to deeply explore these in a meaningful, satisfying way?

**These questions are about the project's first aim, which was to *develop a website that would provide a valuable resource for Australian early childhood education, and in particular to host videos and an online discussion forum that would contribute to the development of knowledge about infancy and toddlerhood in the Australian early childhood context:***

10. To what extent would you describe the value and potential value of the website, including discussion forum and videos that has developed as a result of the project?
11. To what extent does the website and its contents reflect/potentially reflect the intentions and contributions of the project participants?
12. Are there aspects of the website that could be further enhanced/developed in the future and why do you think that would be worthwhile?

**These questions are about the overall impact/potential impact of the project**

13. To what extent has your participant in this project influenced or had an impact on your *individual* professional life and/or the professional context within which you work?
14. To what extent do you think this project has the potential to influence/encourage change in:
  - a. Curriculum development within early childhood teacher education?
  - b. Learning and teaching practices within early childhood teacher education?
  - c. Teaching leadership and/or management processes within early childhood teacher education?
  - d. Curriculum, teaching practices and leadership/management within the early childhood education field more generally?
15. Lastly, if the project team plans future project in this area, would you be interested in continuing your involvement and participation in this and other related initiatives?

**Thank you for taking the time to consider these questions and to answer them directly. We appreciate hearing about your experiences and these will offer valuable information to the project team as they plan the next phase of this initiative!**