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A University-Stakeholder Collaborative Approach to Designing Early Childhood Mentor Teacher Training

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Abstract

This paper aims to investigate the relationship between participative approaches and knowledge construction by showing in what ways community engagement in academic research can inform the design and development of professional learning resources. Mentor teachers play a key role in supporting pre-service teachers' learning and development in the context of Initial Teacher Education practicum. While the complexity of this role is highlighted in the literature, teachers are rarely provided with the opportunity to engage in professional learning to support their mentoring practice. We engaged with a group of Early Childhood Education and Care professionals and pre-service teachers to identify mentor teachers' professional learning needs and design, develop and deliver a range of training resources to support mentoring practice. Our research marks a shift from the traditionally top-down approach to developing Initial Teacher Education programs, towards shared leadership where university academics' and education professionals' expertise are positioned on an equal footing. Semi-structured interviews first gathered data on the challenges and strengths of the practicum experience from both mentors and pre-service teachers. This data informed the design and development of resources that were further reviewed and refined through iterative loops of feedback. These dynamic processes of information sharing resulted in a layering of knowledges that led to the creation of genuinely contextual professional learning resources. Given the crucial importance of Early Childhood Education and Care in relation to children's learning and development, the value of participative methodologies in professional learning as well as the critical role played by mentors in quality initial teacher training, there is a critical lack of research on the topic in the Early Childhood Education literature. This study makes an essential contribution to understanding how Early Childhood Education and Care community engagement can better equip educators and institutions to provide high-quality early childhood education.

Keywords

professional learning, initial teacher education, co-design research, stakeholder engagement, early childhood education, practicum experience

Quality Early Childhood Education and Care (ECEC) has been identified as a significant determinant in mitigating risk factors for vulnerable populations. It is key for all children not only in terms of academic success, but also overall life outcomes (Bakken & Brown, 2017; Young, 2017). The current reforms in the Victorian (Australia) ECEC sector to increase universal access to pre-school have led to a sharp rise in demand for qualified workforce. To support this growth, the government has initiated several programs including the Early Childhood Professional Practice Partnership (ECPPP) project. This project aimed to enhance pre-service teachers' (PST)

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practicum experience, with the goal of influencing their decision to pursue a teaching career in early childhood settings. Professional experience within teacher education courses, also known as practicum, placement, or work integrated learning, are widely recognised as crucial components of effective Initial Teacher Education (ITE) (Childre & Van Rie, 2015; LaParo & Siskind, 2022). Amongst its many benefits, positive practicum experience has been linked to an increased likelihood of individuals entering the teaching profession (Moloney & Pope, 2023; Nolan & Rouse, 2013). Some of the key factors contributing to quality practicums and student satisfaction are strong university – school partnerships and effective mentoring by cooperating teachers (Tonge et al., 2024).

Traditionally, a top-down approach has been taken to develop ITE programs. Our research marks a shift towards shared leadership where university academics' and EC professionals' expertise are positioned on an equal footing. Specifically, the ECPPP project was guided by a "…co-design approach to establishing successful, strong partnerships between universities and early childhood service providers that deliver kindergarten programs. […] where partners have an equal voice and are equally valued" (Department of Education and Training, 2019b, p. 3). Following an initial literature search, the academic team identified that insufficient teacher training in mentoring practice in the context of ITE negatively impacts practicum experience (Major & Santoro, 2016; Wilkinson, 2022). We hypothesised that most, if not all, the teachers currently hosting PSTs from our university may not have received training focused on supporting PSTs' learning. A group of community stakeholders was established to identify mentor teachers' professional learning (PL) needs and subsequently design, develop and deliver a range of training modules and resources to support mentoring practice. This community stakeholder group comprised a diverse range of EC professionals including teachers, educational leaders, ECEC settings directors and city council children's services representatives, all of whom play a role in the successful delivery of ECEC and who offer practicum experiences, as well as PSTs from our university's Master of teaching program.

The use of the word *co-design* in the Department's tender document implied an approach involving collaborative processes between academics and the ECEC professional community, with a view to finding solutions to perceived issues of practice based on genuine consultation and joint problem solving. However, in seeking to translate this into a specific methodology, the precise use of the term *co-design* was elusive in the literature, to the point where Wang et al. (2022) argue that, despite 50 years of application, there is actually no consensus on its definition. Its extensive use in healthcare as well as a wide range of social sciences makes it a catchphrase that does not indicate clearly in itself how participants actually engage in the research process. Furthermore, there is a range of additional terminologies used to refer to the inclusion of participants in education research, such as *participatory action research* (Kemmis & McTaggart, 2005), *community of practice* (Wenger, 1998), *representative groups* (Cviko et al., 2015), etc. In this paper, we have coined the phrase *participative approach* to refer to any type of methodology, including the ones listed above, where participants actively contribute to one or more aspects of the research process. In order to better situate the ECPPP's own approach, details on these methodologies, their terminology and related participant engagement are provided in the next section.

The active engagement of communities of teachers in PL initiatives is well-documented in the literature (Cooke, 2021; Darling-Hammond & Richardson, 2009; Messiou, 2019). Participative approaches have been shown to enhance participants' motivation, self-efficacy and meaningful professional growth. However, the availability of specific ITE mentoring PL is limited across the field (Donegan-Ritter et al., 2023; Major & Santoro, 2016), and thus there are few studies on mentor teacher training. Of these, most do not refer to participative approaches but rather traditional "top-down" training delivery (Bernhardt, 2020; Gareis & Grant, 2014). Historically, the field of ECEC research has received less attention than the primary and secondary school sector (Saracho, 2020), and this also applies to both practicum experience (Cretu, 2021; Donegan-Ritter et al., 2023; LaParo et al., 2018; Oberhuemer, 2015) and mentor teacher training. In relation to the latter, only two studies on EC mentor training were identified and these did not include an active engagement of the participants in the research process (Kupila et al., 2017; Moloney & Pope, 2023).

Given the crucial importance of ECEC in relation to children's learning and development, the critical role played by mentors in quality initial teacher training, as well as the value of participative methodologies, it is crucial more research is undertaken in this field. By further understanding the dynamics of mentorship in ITE and developing much needed PL resources through a participative approach, we can better equip educators and institutions to provide high-quality early childhood education, ultimately benefiting both vulnerable and general student populations alike.

This paper aims to make visible the relationship between participative approaches and knowledge construction, by showing in what ways community engagement in academic research can inform the design and development of PL resources. First we highlight the complexity of the ITE mentoring role, before identifying the benefits of participative approaches to teacher PL. In order to situate the study's methodology, we present the different ways that teachers -and other teaching and learning community stakeholders- can be involved in participative approaches to research, based on the stages of the process they are involved in, from initiating and leading all its stages, to having a consultative role in only one of them. Finally, we articulate how we engaged with ECEC professionals and pre-service teachers to design and develop resources to support mentoring practice. Specifically, the research questions addressed are:

(1) How is this research positioned within participative approaches in the area of Early Childhood Education and Care professional learning?

(2) In what ways did the research participants' engagement inform the design and development of the Initial Teacher Education mentoring professional learning resources?

Literature Review

The literature review that follows describes the importance of quality mentor teacher practice, and participative approaches to teacher PL. Participatory approaches are highlighted with reference to literature sourced via database searches in key educational databases (e.g., EBSCO, Web of Science, ProQuest). Finally, a Spectrum of Participative Methodology for ECEC PL research is presented to frame this paper.

The Importance of Quality Mentor Teacher Practice

Teacher knowledge and practice are some of the strongest factors positively associated with student learning and development (Hattie, 2012; Timperley et al., 2007). This also applies to the context of practicum, where mentor teachers play a key role in supporting PSTs' learning and development (Ellis et al., 2020; Hall et al., 2008; Moloney & Pope, 2023). However, there is a pervading belief that teachers can act as mentors by simply modelling their practice and sharing their experience, or in other words, that they naturally know how to mentor. But good teaching practice with young children does not automatically translate into good mentoring with adult learners (Betlem et al., 2019; Clarke et al., 2012; Kolman et al., 2017). Supporting PSTs' professional growth during practicum is a complex process (Orland-Barak, 2021; Waber et al., 2022; Yoon & Larkin, 2018). Effective mentoring relies on an extensive set of skills and conditions that span a wide range of domains of practice, including interpersonal skills to build a trusting and supportive relationship; professional knowledge to model effective teaching and link theory with practice while enabling PSTs to find their own professional identity; and communication to provide direction, support and engage in feedback conversations (Clarke et al., 2014; Ellis et al., 2020; Kriewaldt et al., 2017; LaParo et al., 2018). While this complexity is highlighted in the literature, research also consistently shows that mentor teachers are rarely provided with the opportunity to engage in PL to support their mentoring practice (Black & Mottonen, 2021; Donegan-Ritter et al., 2023; Major & Santoro, 2016; Wilkinson, 2022).

Participative Approaches and Teacher Professional Learning

Top-Down Training Versus Teacher-Led Professional Learning

Two main approaches to PL are identified within the literature investigating effective ways to support teachers' professional growth. Professional growth can occur through learning new skills and knowledge via training, usually provided by outside experts, or it can be a process requiring teachers to participate themselves in the development of new practices and resources (Lloyd & Davis, 2018; Sheridan et al., 2009). Clarke and colleagues (2021) argues that these modalities are both valuable, and that each suit different purposes that depend on the aim of the PL. However, there is a strong body of literature showing that training provided by outside experts, on a one-off basis, to individual teachers separated from the rest of their work team tend to have low impact on professional growth (Kelly et al., 2019; van Schaik et al., 2019). These top-down training approaches to professional development have been associated with 21st century education reform agendas characterised by disempowering approaches focusing on testing, curriculum implementation and accountability with the consequence of diminishing the voice and agency of teachers (Crawford-Garrett et al., 2020; Dulfer et al., 2023). Charteris (2016) argues that the delivery of professional development by outside facilitator-experts tend to position teachers as passive consumers of knowledge while their own professional expertise is not acknowledged. A way of giving teachers voice and agency is by involving them in the design and/or development of the PL itself, through collaborative learning that is situated in their context of practice. Rather than information going in only one direction ('top-down' training delivery), the relationship becomes bi-directional as knowledge flows back and forth between all involved (Sheridan et al., 2009). This approach, based on socio-constructivist perspectives, emphasises that participation leads to situated learning (Lave, 1991). Knowledge construction becomes a product inherently generated through the interactions of actors within a specific context of teaching and learning (Bergmark, 2020; Spinuzzi, 2005; Wenger, 1998). In the exchanges that characterise collaborations or partnerships, which triggers the change from top-down to distributed relationships, it is thus the nature of learning itself that shifts.

Benefits of Participative Approaches: Contextualisation, Motivation and Shared Expertise

Contextualisation refers to embedding the research within teachers' everyday practice. It is hypothesised that by answering a real-life problem that practitioners have in the field, and involving them in the identification of solutions, chances of seeing the findings implemented in practice are much greater (Edwards et al., 2007; Penuel et al., 2020; Putnam & Borko, 2000). The findings, based on the specificity of the teaching environment are more authentically tailored to the context, and thus more likely to be implemented, leading to improved educational outcomes.

Motivation is another benefit of participative research approaches. Increased engagement through active participation and decision making is likely to foster a stronger sense of ownership, which, in turn, will lead to a greater likelihood to

change teaching practices (Sanderson, 2016; Voogt et al., 2016). Furthermore, involving teachers avoids the research/practice disconnect that can lead to practitioners' distrust of research findings and disengagement from the PL content (Betlem et al., 2019; Capio et al., 2021).

As mentioned, learning happens as a social process through the sharing of knowledge, reflective dialogue and the ongoing exchange of ideas (Goertzen, 2023). This process leads to a *shared expertise* that blurs the lines between the hierarchical relationships established in top-down research (Efron & Ravid, 2019; Sewell et al., 2018; Spears et al., 2021) as teachers' skills are recognised and their expertise is validated (Capio et al., 2021; Dulfer et al., 2023). This in turn goes towards building teachers' capacity and increases their self-efficacy (Blundell, 2024).

Participative Approaches in the ITE Context

The features and strengths of participative approaches to PL in schools also apply to the ITE context. Although much rarer, triadic collaborations where university researchers work with mentor teachers as well as PSTs to develop resources or novel approaches to learning are documented in the literature. These stakeholders' collaborations markedly improve mentors' and PSTs' PL by supporting more effective translation of theory into practice (Lemon et al., 2018; Sharma et al., 2023), enhancing commitment and reflection (Stenberg et al., 2016), and designing and developing innovative teaching practices (Huang & He, 2023). These approaches operate a similar shift in terms of expertise and power relation as the one described above when teachers engage with university researchers, promoting "a collaborative, reciprocal process through which all participants have the opportunity to contribute equally, although not necessarily in the same ways, to curricular or pedagogical conceptualization, decision making, implementation, investigation, or analysis" (Cook-Sather et al., 2014, pp. 6-7).

This section has highlighted the powerful benefits of practitioners' engagement in the process of designing and developing the means of their own professional growth. Participative approaches that consider context, harness expertise and promote agency, lead to meaningful shared learning that build capacity and a positive teacher identity. Next, we discuss the variation in the extent of participants' engagement within participative approaches.

Participative Approaches in ECEC (Mentoring) Professional Learning

Methodologies where participants are actively engaged in PL vary in relation to which stage the participants are involved in and what role they play in the process. In order to situate our own research, we review below the range of methodologies we identified in the literature. Due to the dearth of literature on PL in relation to mentoring practice in the field of ITE, and the very small number of studies in the ECE context, we provide references of a broader range of EC teacher participative PL, as well as mentoring PL in the Primary and Secondary school context.

Action Research

Practitioner inquiry groups (Newman & Mowbray, 2012), *Professional Learning communities* (Darling-Hammond & Richardson, 2009), *Research Circles* (Elm & Nordqvist, 2019) or *Communities of Practice* (Kirkby et al., 2019) position participants as practitioner-researchers. These different terminologies can all be linked to forms of (Participatory/Collaborative) Action Research where teachers initiate and lead research to provide their own solutions to challenges arising from their situated practice, through an extended inquiry process (Kemmis & McTaggart, 2005; McNaughton & Hughes, 2009). In Action Research, teachers work together to improve their practice through cycles of planning, acting, observing and reflecting with the possible support of academic-based facilitators who may guide the group in identifying questions, staying on track and providing resources (Messiou, 2019). The professional growth generated through this type of approach stems from a shared and open reflection on current practice, research to identify possible solutions, trialling of pedagogies and assessment of their impact on student learning (van Schaik et al., 2019).

In relation to mentor training PL we identified two studies, in the Primary and/or secondary context, where participants play such a role. In Clarke et al. (2012), academics and a group of mentor teachers come together on a monthly basis over a year to design a tool to support reflective practice, the *Mentoring Profile Inventory*, which they then pilot, review and finalise over the following year. The role of the teacher community includes self-identifying an issue of practice, informing the design of the tool by providing data, and reviewing each phase of its development. The academics synthesise the input data from the teachers, guide the reflection throughout the development of the tool, and make changes based on teachers' feedback. This leads to both positioning the teachers as experts and ensuring the contextualisation of the tool. In Betlem et al. (2019), Participatory Action Research (PAR) guides the collaboration between university researchers and teachers to trial and refine a contextualised professional development model, designed to promote teachers' capacity for mentoring. In the study the teachers are guided by the university team to engage in cycles of observing, planning, implementing and reflecting to understand their mentoring practice and enact change. The authors argue that using PAR places a strong emphasis on the contextual nature of the PL, the agency of the teachers, and the distributed expertise.

Co-Design

Co-design refers to teachers, sometimes in extended communities that can include other education professionals,

students, parents, as well as PSTs, working with academics and often other experts, to produce resources as well as more holistic pedagogical approaches for the classrooms (Ke et al., 2023; Kelter et al., 2021; Penuel et al., 2007). In the education context, co-design participants do not initiate the research and do not collaborate on its design (Edwards et al., 2007; Penuel et al., 2007). However, they are actively involved in the development of resources and their expertise is called upon to contextualise the resources, the need for which have been identified by researchers. Co-design is characterised by a back-and-forth process where resources that will facilitate student learning are designed, developed, tested, and refined in a series of exchanges between the teams of researchers, education communities, and sometimes developers, each in turn contributing their expertise from their own field of practice (Edwards et al., 2007). Co-design constitutes an intrinsic form of professional development as researchers, or other experts, introduce new content to teachers who are then asked to adapt and customise it to their context of practice. By engaging in this process, teachers both learn *and* apply the learning, so that the content is deeply explored and understood (Goertzen, 2023; Kelter et al., 2021; Voogt et al., 2016).

Examples of co-design methodology have been identified in the ECEC PL context. Capio et al. (2021) describe teachers attending training on motor development and later collaboratively designing movement activities tailored to the children in their classrooms. Cviko et al. (2015) reviews how technology experts support teachers' development of technology-integrated activities to support children's emergent literacy skills.

Co-design is the main approach used when university providers, mentor teachers and PSTs engage in PL through triadic collaborations. In these studies, the focus of the collaboration is not on mentoring skills but on an aspect of PSTs' content knowledge such as Social Science Instruction (Huang & He, 2023) or overall reflective practice (Stenberg et al., 2016). Similarly to the examples provided above, the design and then implementation of innovative content as well as pedagogies constitutes highly effective PL opportunities for all involved. We did not identify any examples of co-designing resources to support PL in relation to mentoring practice in any education context through our literature search. We acknowledge that this is a potential limitation of this body of literature as this methodology may have been implemented but not documented in the published literature, or that it may have been described using a terminology that we were not able to identify.

Consultation

This type of participative approach is when PL content is being developed on a large scale, to be delivered through traditional top-down training, but researchers seek teachers' input in its development phase. This approach aims to avoid some of the pitfalls of the top-down PL, such as the perceived disconnect between academic research and teachers' situated practice, lack of recognition of expertise, decontextualization, that can all negatively impact on the effectiveness of the PL. In *representative groups* (Diamond & Powell, 2011) or *advisory boards* (Hindman et al., 2015) research is fully designed and training and resources developed by academics. Teachers' expertise is sought but it is limited to a consultative role. The content of the PL is reviewed by teachers and modified in a series of back and forth exchanges following direct oral feedback, surveys, and observations. While teachers are not involved in the initial design of the research, nor the initial development of the resources, they provide expert input in aspects of its development. Despite our best efforts, we have been unable to locate examples of such consultative process to support PL in relation to mentoring practice in any education context. As mentioned above, this does not mean it has never been done, but that at this stage of our literature search we have not been able to identify any relevant example.

Survey

Finally, participants' involvement can be limited to a specific section of an intervention otherwise fully designed, developed and implemented by an academic research team. In Sanderson (2016), teachers are asked to provide their preferences, via a survey with open-ended questions, on the topics of the training workshops they will receive at a later stage. In this case the traditional top-down approach to research and PL delivery is fully maintained. However, the researchers have hypothesised that self-identifying issues in the context of their practice is likely to increase teachers' motivation to engage in the training, which in turn is more likely to have a positive impact on their practice. In this sense the participants' input is less viewed as a recognition of their expertise than as a mechanism to increase the intervention's efficacy. This study is the only case we found with such kind of input from participants, and it happens to be to support mentoring practice in ECEC.

The only two additional studies we identified focusing specifically on mentor teacher professional development in ECEC are both conducted within the traditional top-down research approach, with academics identifying mentor teacher's training needs and providing tailored programs (Kupila et al., 2017; Moloney & Pope, 2023).

The Spectrum of Participative Methodology for ECEC Professional Learning Research

Participative methodologies all imply a degree of shift towards shared expertise, enhanced contextualisation, intrinsic motivation and a reduction in the perceived research/practice gap. They are also linked to a power shift, as decision making becomes distributed across the actors involved in the research. However, whilst each methodology has distinctive features, close examination of examples available in the literature (all of which could not be included above) also shows

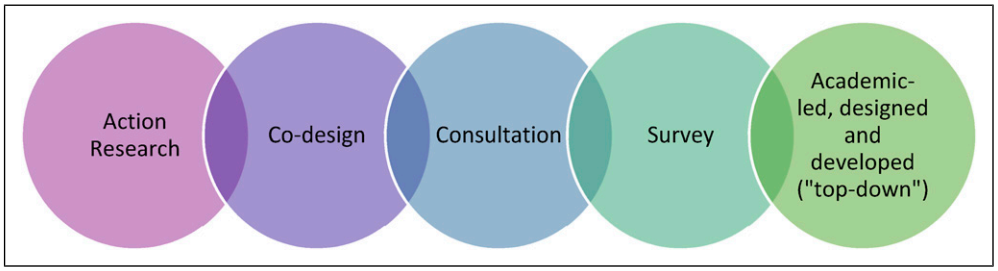

Figure 1. The Spectrum of Participative Methodology in ECEC Professional Learning.

that participant engagement can vary to some degree within the denominated approaches, as well as overlap. Furthermore, accounts in the literature do not always describe in detail how these participant engagements take place. Therefore, we propose that participative methodologies can be envisaged on a continuum, or spectrum, of decreasing participant engagement within the research methodology, starting with Action Research, to co-design, to consultation and finally survey methods. The spectrum allows to visualise the evolving participant engagement; and while terminologies are necessary, the idea of a continuum based on participants' agency facilitates the conceptualisation of the role they play within a given methodology.

To address our research questions, the remainder of this paper presents and discusses how we, as academic researchers, engaged with a community of ECEC professionals and PSTs using participatory methods to develop mentoring PL resources. This enables us to highlight in what ways our approach is unique based on the extent of our literature search, while also positioning this research on the spectrum of participative methodology in ECEC PL (Figure 1). We then reflect on how the ECEC community engagement informed the design and development of resources within the multidirectional flow of exchanges between the projects' actors.

The Study

Positionality Statement

The first author, Edith Nicolas, is a university lecturer and qualified early childhood teacher, who had been coordinating the Clinical Teaching Practice subject (which includes the practicum) for two years at the time of the study. This included designing, developing and delivering lectures, seminars, and all related administrative tasks for up to 300 students for the subject, overseeing the organisation of placement and its assessment, as well as managing the team of up to 20 Clinical Specialists[1] and herself also acting in that role. The second author, Cristina Guarrella, is a university lecturer, researcher and qualified early childhood and primary teacher. Cristina was coordinating subjects with embedded EC practicum experiences and joined the academic team after data collection. Her research focuses on teacher practice with a particular interest in teacher change through mentoring. The third author, Parian Madanipour, was a recent graduate of the Master of Early Childhood program and had been employed as a Clinical Specialist for a year at the commencement of the study. The academic team received throughout the project the advice of a senior academic staff member of the EC Master of Teaching course. This experience may have created some unconscious bias, positive as well as negative, in the way we addressed the research findings and made decisions throughout the project. The following pages describe all the stages of the research, including the rationale for each decision, that at all times, and to the best of our intentions, followed a rigorous process.

Participants

A group of 20 ECEC professionals and 16 PSTs were recruited on a voluntary basis, via an email invitation. The PSTs were enrolled in a Master of Teaching in Early Childhood or Early Childhood & Primary. The ECEC professionals worked within the ECEC centres partnering with the university to deliver the Master of Teaching practicum experience. The ECEC professionals were all qualified EC teachers (Bachelor or equivalent), with several acting in different roles, some in addition to their teaching activity, at the time of the interview: ECEC centre director (n = 7), Clinical Specialist (n = 2), Educational Leader (n = 7), city council children's services director (n = 1), teachers only (n = 3). The PSTs were in their second year of study and had completed 40 days of practicum experience in ECEC settings. At the time of data collection, the PSTs were completing their last 20 days practicum ("ready to teach"). It should be noted that the mentors and PSTs recruited for this study were not parts of dyads – they had not been together during practicums. Ethics approval was obtained from the university committee (REF: 1956003) and permission to conduct research within EC settings was received from the Victorian Department of Education.

Research Process

Over 2 years (2020-2021), the academic team engaged with the participants in the successive stages of the research. The nature of this research is complex (Figure 2). Starting with

interviews with the two participant groups, i.e. the ECEC professionals and the PSTs, the research continued with a follow-up workshop, leading to the creation of 4 PL modules provided over 2 days. The training content and additional resources were later disseminated to PSTs and the wider ECEC professional community to support mentoring practice. Each decision made throughout the research process was informed by data gathered from either ECEC professionals or PSTs in iterative loops of feedback. This data was collected both formally via interviews and surveys and informally through notes of conversations during workshops and meetings, and collection of artefacts during PL. Next, each stage of the process will be discussed in turn.

Mapping the Research Process

Before presenting each stage of the process in succession in the next section, the diagram (Figure 2), or process map, aims to show at a glance the iterative nature of the process, the multiple data collection points and how the academic team and research participants were involved. The process map aims to make visible the complex connections, through iterative cycles of design and development, that lead to the final suite of PL materials. It shows how actors engaged and the role each of them played in the design and development of the resources. Based on the initial interview data, each following phase was informed by distributed expertise provided through a

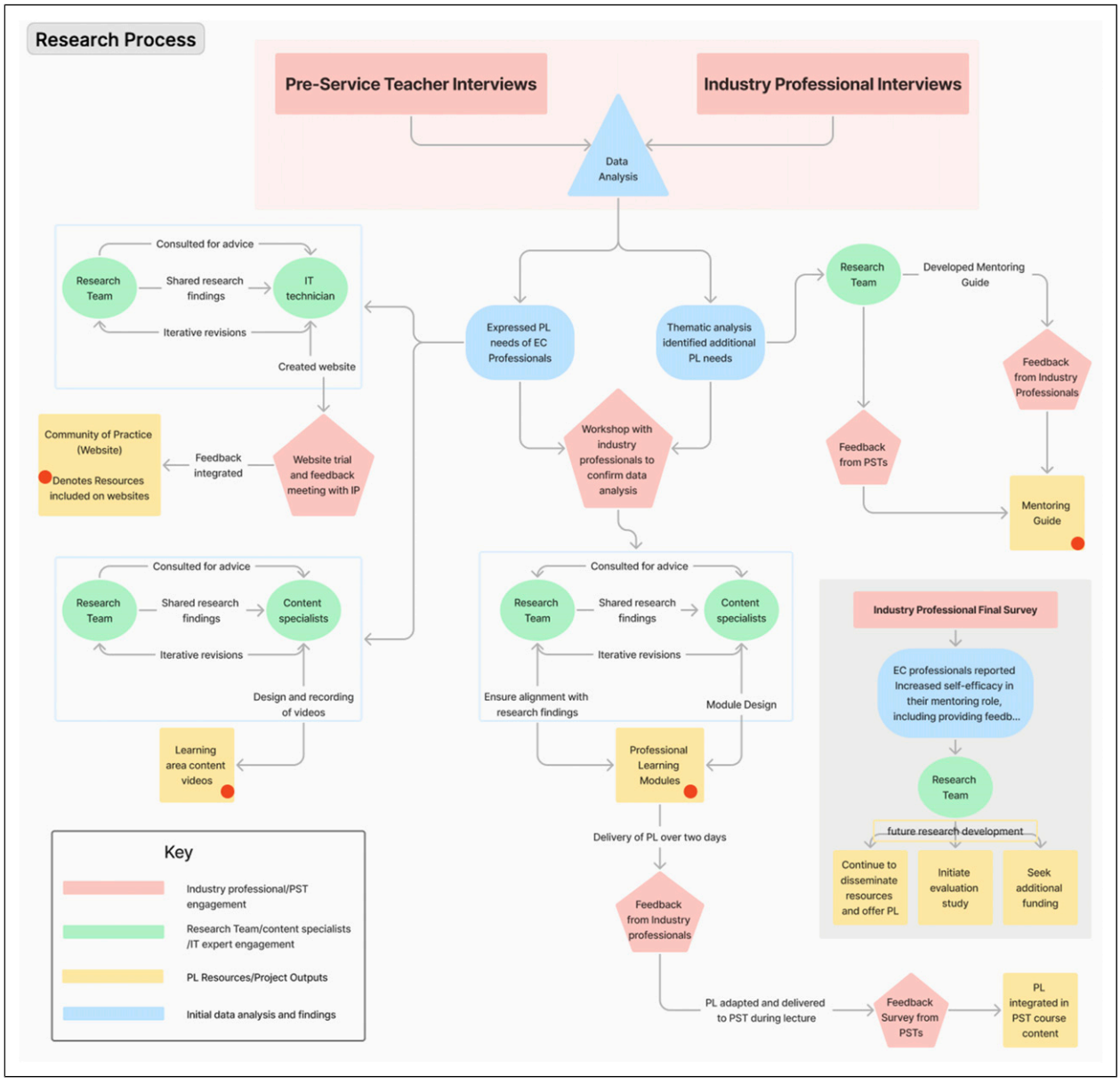

Figure 2. Research Methodology Process Map.

combination of feedback, consultation, content development and technical input, trial, piloting and review.

Stage 1 – Interviews (Year 1)

Data Collection

Semi-structured interviews of approximately 1 hour duration were conducted online via Zoom with each participant. The semi-structured interview protocol included open-ended questions that aimed to elicit descriptions of the challenges and strengths of the practicum experience for mentors and mentees and what an ideal mentor/mentee relationship might look like. For the ECEC professionals, prior mentoring training and mentor teachers' self-identified professional development needs were also investigated.

Data Analysis

An inductive approach was taken by researchers to identify patterns and meaning within the dataset. Themes strongly linked to the datasets were identified through a reflexive thematic analysis following Braun et al. (2019). NVivo was also used to help the researchers to transcribe the interviews and make connections between the participants' responses (O'Toole & Beckett, 2013).

Findings

Our initial assumption, based on a literature review and anecdotal evidence, was that most or all the ECEC professionals in our university practicum networks would not have received specific training for their role as mentor teachers. This assumption was confirmed via the interview data, with only one teacher (5%) having received formal training to mentor PSTs. A further five teachers (20%) had received training to mentor graduate teachers, but not specifically PSTs.

All ECEC professionals discussed lack of time as a critical factor negatively impacting their mentoring practice. Thematic analysis identified key areas of professional practice for future development amongst the ECEC professionals, that have also been identified in the literature, including leadership skills such as interpersonal skills (Ellis et al., 2020), providing feedback (Dobrowolska & Balslev, 2017; Edwards-Groves, 2014), cross-cultural competence to engage effectively with international PSTs (Garte & Kronen, 2020), defining the role of mentor teacher, pedagogy with children and learning area knowledge (Donegan-Ritter et al., 2023) and mentor teacher communities of practice.

While the PSTs reported that they had very positive practicum experiences, they also acknowledged some level of negative experiences that they felt impeded their professional growth (Yoon & Larkin, 2018). Key issues arising for PSTs include lack of effective feedback (Cretu, 2021; LaParo & Siskind, 2022), poor overall communication (Waber et al., 2022), including intercultural challenges (Zheng et al., 2024), lack of agency and the absence of a sense of belonging in the EC settings in which they were placed. These initial findings from the interviews informed the subsequent stages of the research process. Armed with these understandings, the academic team invited the ECEC professionals to participate in a workshop.

Stage 2 – Workshop (Year 1)

3 months after the interviews, 13 of the 20 ECEC professionals who had been interviewed were able to attend a whole-day online workshop, with the aim to:

(i) present the preliminary findings of the study.
(ii) further refine our understanding of the mentor teachers' professional development needs.

During the workshop, the researchers recorded the group discussions, which were later transcribed. In relation to the aims of the session, i.e., confirming PL needs, the ECEC professionals did not identify any additional areas for professional development during the workshop. In conversation with participants throughout the day, however, the researchers received requests for resources to support communication between mentor teachers and PSTs, such as a list of questions to ask when first meeting a PST. They also mentioned the benefit of an induction session to get to know PSTs ahead of practicum. The induction session would also provide the time for the PST to be introduced to the staff, children, centre layout, etc. thereby supporting the sense of belonging which they had identified could be absent on practicum. In addition, an induction would be an ideal opportunity to start building a rapport to support a positive mentoring relationship – which had been identified by all participants as a key element in positive practicum experience (Ellis et al., 2020; LaParo & Siskind, 2022). In relation to how best to establish a community of practice, participants suggested creating a platform that could offer ongoing access to an open forum for discussions as well as mentoring and teaching resources and professional learning content.

At the conclusion of the workshop the researchers collated their notes of the discussion along with contributions from the participants on the meeting "chat" function and meeting transcripts. A reflective discussion was held amongst the researchers to consider these outputs and based on information collected, started working on the design and development of PL modules.

Stage 3 - Professional Learning Modules Development and Delivery (Year 1)

Based on the themes identified in the initial interview analysis, that were confirmed during the workshop, the academic team focused

the PL module on feedback strategies and intercultural communication skills. Furthermore, the academic team decided to include a module to highlight how mentoring should be understood as a feature of leadership. While the ECEC professionals had not identified this as a PL need, the academic team used their own theoretical expertise to decide to extend the broader understanding of the mentoring role.

The team used existing professional connections to identify colleagues with expertise on evidence-based feedback and mentoring conversations, inter-cultural intelligence, and leadership. Content was developed by these experts, reviewed by the academic team, modified, and refined several times so the final result was very closely pitched to the findings from the interview data and workshops. The following month, the academic team, expert colleague-presenters and the ECEC professionals met online to engage in two full days of PL.

In order to gauge participants' engagement in the PL sessions, and gather feedback on the content, each module was followed by a questionnaire. 90% of participants agreed or strongly agreed with the following statement in relation to each of the four modules: "Helped me develop knowledge on the topic", "Provided me with useful opportunities to develop my mentoring skills", "Was useful in my professional development as a mentor teacher", "Can be an effective professional development for mentor teachers", "Provided opportunities to critically reflect with others". Furthermore, in the final open ended question on which aspect had been the most useful, 75% of respondents referred to the mentoring conversation and feedback literacy modules as being the most useful.

Based on this positive feedback from the ECEC professionals on the PL content and given the existing lack of PL resources to support mentoring skills in the profession, the team reflected on effective ways to disseminate the PL resources to a wider audience of ECEC professionals. It was also identified that providing some of the training module content to PSTs in their course would equip them with effective mentoring strategies when they themselves entered the profession. The academic team also wanted to address some of the other items identified in the interviews, such as defining the role of a mentor, developing a community of practice, addressing the need for an induction session, and providing subject area PL content.

Stage 4 - Dissemination of Resources and Further Development (Year 2)

Pre-service Teacher Education Leadership Subject Content

Both ECEC professionals and PSTs had identified feedback as a critical aspect of mentoring in their initial interviews. Following the highly positive response from the post-training survey on feedback literacy and mentoring conversations, the academic team decided to embed the content from these modules into the PSTs' Educational Leadership subject. Following the in-class delivery, anecdotal evidence shows some PSTs were able to pilot the resources on their practicum. They engaged their mentor to use the strategies and tools developed in the module, which they reported significantly enhanced the provision of feedback from their mentors. Others were not able to use the resources due their mentor teachers finding the process too long and perceiving it negatively as additional 'paperwork'. Following this feedback, the team made some minor changes where possible and also clarified the flexible nature of the tool; it does not have to be used in its entirety, but rather limited to one or more of its sections, based on PSTs' needs.

The link between leadership, mentoring and coaching was also made more apparent in the subject throughout the semester. As subject content is bound by subject outlines approved via accreditation processes, the module relating to intercultural content was out of scope for the subject and therefore not included. In retrospect, more could have been done by the team to incorporate some of this content in the subject.

Mentoring Guidelines

In the interviews, several ECEC professionals had mentioned their own lack of clarity around their mentoring role. In addition, some PSTs had discussed their anxiety and doubts ahead of their first practicum as to what would be expected of them. To address these areas of concern, the academic team developed a set of mentoring guidelines, listing the roles and expectations of both mentors and mentees. These guidelines are based on research and existing Department of Education documents (Department of Education and Training, 2019a). The mentoring guidelines were introduced to the ECEC professionals at a workshop meeting and 100% of respondents either agreed or strongly agreed to the following statements: "Clarifies my role as a mentor", "clarifies my responsibilities as a mentor", "Clarifies my expectations towards my mentee", "Supports my mentoring practice". It was also agreed that the document would be provided to PSTs ahead of their practicum.

Induction Protocols

While participants in the workshop highlighted the need to organise an induction process where PSTs would spend time familiarising themselves with their mentor and context ahead of placement, it was not possible for administrative reasons to make this additional time mandatory in the course's semester schedule. ECEC centres also vary in their practices in relation to induction processes, and not all have the capacity to allow for this additional time commitment from teachers. In order to raise PSTs' and ECEC service providers awareness of the importance of the process, we planned to film a mock induction session, that would be shown to PSTs ahead of placement, with two of the teachers participating in the research acting the 'teacher' and the 'PST' role in their setting.

Unfortunately, the project had to be cancelled at the last minute due to an unforeseen Covid 19-related lockdown. The team was however able to record over zoom an interview with the teacher who had volunteered for the teacher role, where she described the high-quality induction process in place in her ECEC centre. The video has since been disseminated to PSTs; it has also been made available to mentor teachers as an example of best practice (see below section on the website).

Community of Practice – Website Design and Development

Based on the expressed wish from participants to see the establishment of a community of practice, with only very broad guidelines as to which form this might take, the team decided to develop a website with the support of the university's IT department. The aims of the website were to:

(i) Disseminate the mentor training to all the university's partner mentor teachers and beyond, via videos and podcasts.
(ii) Provide ongoing and updated content on evidence-based pedagogical practices and strategies.
(iii) Create a community of practice, through the establishment of a space for ongoing discussion between mentors, academics and PSTs.

In addition, it was hypothesised that a website would provide extensive flexibility as to how and when time-poor teachers might access the resources.

The website housed copies of PL videos (details below) and the mentoring guidelines. It also featured a discussion board to encourage feedback on the resources offered, with a space to establish a community of practice through professional discussions – as had been requested in the initial interviews. The website was first piloted with the ECEC professionals during an online meeting to ensure ease of navigation and minor changes were made following feedback. The website was advertised via email and mailed flyers, to all the university's partner ECEC centres. The website was also advertised to all PSTs via the Educational Leadership subject.

Professional Learning Videos

The design and development of videos and podcasts was led by the academic team. They included adapted versions of the mentoring training modules as well as a set of purposefully designed pedagogical content videos (developed and presented in collaboration with other expert colleagues). Based on ECEC professionals' expressed time constraints, all videos on the website were kept to a format of between 10 and 20 min.

The website has since been subscribed by over 200 mentor teachers and PSTs. Anecdotal evidence shows that the resources are being downloaded and videos viewed although it is unclear how impactful the tool actually is. The academic team is currently reviewing the website design and engaging with the state teachers' regulatory body to further extend its dissemination.

Stage 5 - Final Survey for ECEC Professionals (Year 2)

At the end of the second year of the project, a final survey was sent out to participants to evaluate the impact of the training on their mentoring practice. Six out of the initial 20 ECEC professionals answered the final survey. The respondents reported increased confidence in their mentoring practice, improved relationships with mentees, increased confidence and skills in providing feedback to mentees and a stronger sense of self-efficacy. This increase in confidence and mentoring skills, in particular providing feedback, reaffirms that providing effective feedback requires extensive support, including through quality PL opportunities.

Discussion

This research was successful in bringing together professionals from the ECEC community, PSTs and university academics to share understandings, experience, and challenges around practicum. The spectrum of participative approach in ECEC professional learning research, based on the level of participant engagement and input in the research process, enables us to be quite specific in terms of situating our research methodology within the existing literature.

When considering the shifts in power dynamics that occurs when participants actively engage in the development of PL, we noticed as academics that the authority and power inherent to our position was automatically attributed to us, as initially it felt as though the participants were expecting us to come up with answers to the issues they had identified, rather than working with us towards finding the solutions. Empowering the participants through communication and systematic validation of their input was a process that developed through time. Ultimately, the academic team were still the drivers and main decision makers throughout the project. As such, our approach cannot be related to *participatory (action research)* approaches.

The ECEC professionals, and to a lesser degree the PSTs, acted as expert consultants by providing feedback that validated the modules and other tools developed by the academic and related specialists. Going back to our initial research question, "How is this research positioned within participative approaches in the area of Early Childhood Education and Care professional learning?", we have shown that our methodology can be linked to the *consultation* approaches. However, the main innovation in our approach, that sets it apart from the examples of consultation mentioned in the literature review, consisted in using the extensive interview data as the basis for designing and

developing the resources. While there is available literature on the lived practicum experience from both mentor teachers and PSTs perspectives (Bullock, 2017; Garte & Kronen, 2020; LaParo et al., 2018; Yoon & Larkin, 2018), to our knowledge the in-depth data that we initially gathered has never been used to inform mentoring PL modules. Furthermore, the addition of PST voices to further identify mentoring PL needs and improving other placement practices is a feature we did not find elsewhere in the literature. So, whilst the research does not constitute a strict example of co-design because the ECEC professionals were not actively engaged in the development of the resources themselves, their voices and expertise were nevertheless central to the design and development of the resources.

This enabled the authentic contextualisation of the research. The strong positive validation of the resources received throughout each feedback stage went towards confirming that the content had been accurately mapped out, developed and disseminated based on the input from the practicum experts. Our approach thus sits on the continuum between co-design and consultation.

The above already answers in part our second question, "In what ways did the research participants' engagement inform the design and development of the Initial Teacher Education mentoring professional learning resources?", that relates to how knowledge was constructed through the actors' interactions. The tri-partite dynamics of the academic team, ECEC community and additional content experts resulted in a layering of knowledges that built up to produce the resources. As academics, we relied on ECEC professionals' and PSTs' expertise of practicum, so that the interview data and each following feedback input was the driver that informed the next phase of development and/or dissemination of the resources. The PL topics, ways they were presented, and overall design all responded to specifications based on the experts from the field. In turn, the academic team and colleagues provided our own theoretical content expertise to support mentor teachers' professional growth. The final suite of PL materials is a genuine product of collaboration; decision making was not guided by the ECEC community's direct input, but rather by the academic team's deepening understanding of the teaching and learning community practices and needs, that was elaborated over the months of collaboration, reflection, action and review.

Conclusion

Renewal of the funding over the past three years has enabled the academic team to further support mentoring skills, pedagogical practices and university-ECEC centre partnerships. Over this time, we have built a strong following, with over 400 ECEC professionals and 150 PSTs attending one of the several PL events we have since offered. However, beyond the high-quality PL events, it is unclear how much of this activity ultimately translates into practicum improvement and PST satisfaction. The Victorian ECEC community is currently facing strong challenges due to the pressure created by reforms to universalise kindergarten attendance for children, in a context of staff shortage due to post-covid burn-out, uneven working conditions within the sector, and the increase of for-profit private providers.

These systemic issues create barriers to practicum experience that go beyond the remit of the project: difficulties for teachers to attend training due to low availability of casual staff to cover their time off the floor; the perceived low priority of practicum issues compared to engaging with children, families and administrative tasks that already often represent a heavy workload; the fact that teachers and centre directors who provide the poorest practicum experience may be the least likely to seek resources and be ready to invest time in developing quality practice in that area.

Our own approach was still very much led by the academic team, and further research should look into a more robust and systematic engagement of the ECEC teaching and learning community through their involvement in each decision making stage of the project. Evaluating the actual impact of the PL on mentoring practice, as well as PSTs' actual experience, would also be highly valuable to refine the research community's understanding of the benefits of such participative approaches.

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Ethical Statement

Ethical Approval

This study was approved by the University of Melbourne Research Ethics Committee (approval no. 1956003) on March 17, 2020.

Consent to Participate

Interview respondents were provided with a plain language statement and gave written consent before starting interviews.

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

Due to confidentiality requirements, the notes, interview recordings and transcripts produced in this research will not be publicly available.

Note

1. University staff who provide academic and pastoral care to PST through placement visits as well as on-campus tutorials; they are also responsible for liaising with mentor teachers and other preschool staff to support strong partnerships.

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