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LEARNING FROM STUDENTS: FACILITATORS' LEARNING IN
INTERPROFESSIONAL PLACEMENTS

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Keywords: interprofessional learning; placement; supervisor; Legitimate Peripheral Participation; healthcare

Running head: Interprofessional placement facilitators' learning

Learning from students: facilitators' learning in interprofessional placements**Abstract**

Few studies have examined experiences and learning from the viewpoint of interprofessional facilitators of student placements, and limited research has investigated this learning enacted across traditional service boundaries or between health and education practitioners. This study aimed to address these gaps by exploring perceptions about the learning and experiences of Early Childhood Educators (ECEs) who facilitated placements in childcare settings for speech-language pathology students from a health professional background. Lave and Wenger's theory of Legitimate Peripheral Participation was utilised to design and interpret this study. Seven ECEs from two childcare centres and four Centre Directors participated in focus groups and individual semi structured interviews respectively. Thematic analysis revealed five themes that described how the ECEs came to accept the students as legitimate members of their practice community, and how this subsequently facilitated the ECEs' learning. The themes of power described in previous studies that explored status and hierarchical differences between facilitators and students from differing professions were not identified in this study. This absence of observed power differential, in addition to the embedded nature of the placement design, and the students' participation in the ECEs' everyday activities and routines contributed to the ECEs' positive interprofessional learning.

Keywords: Interprofessional learning; placement; supervisor; legitimate peripheral participation; healthcare

Introduction

Interprofessional learning activities are essential for students to develop the collaborative practice capabilities critical for health and community service delivery (Brewer, Flavell & Jordan, 2017; Reeves, Fletcher, Barr, Birch, Boet, Davies et al., 2016a). The literature is replete with research about student perceptions of interprofessional learning experiences and models of interprofessional education, including those investigating professional placement experiences (e.g. Brewer et al., 2017; Hudson, Lethbridge, Vella, & Caputi, 2016; Thistlethwaite, 2016). The critical role of interprofessional facilitators for student learning outcomes is recognised (e.g. Brewer et al., 2017; Kent, Hayes, Glass, & Rees, 2017; Reeves, Pelone, Hendry, Lock, Marshall, Pillay et al, 2016b), but research about interprofessional placement facilitators, who supervise students in diverse workplace settings is not prominent in the literature. Studies have investigated the perceptions of interprofessional facilitators about the teaching strategies they employ (e.g. Anderson & Thorpe, 2010; Reeves, et al. 2016b), and their perceptions of students' experiences (Lindqvist & Reeves, 2007). However, limited research has explored what interprofessional facilitators learn from working with students in professional placements, which may be important to inform the development of meaningful training and workplace supports. Furthermore, there is a gap in the literature describing the experiences of interprofessional facilitators in placements that cross perceived hierarchies between professions or span traditional service boundaries, such as across health and education settings.

This study describes the perspectives of early childhood educators (ECEs) who facilitated an interprofessional placement for speech-language pathology students situated in a community childcare setting. Interprofessional education intends learners to construct meaning about practice through learning from, with and

about other learners and practitioners from differing professional backgrounds (Bridges, Davidson, Odegard, Maki, & Tomkowiak, 2011; Reeves et al., 2016a). This presents reciprocal opportunities to share skills and knowledge amongst facilitators and students, which supports mutual understanding, respect for professional roles and shared values (Bridges et al., 2011; Thistlethwaite, 2016). Professional placements situated in workplace environments may enhance interprofessional learning as the experiences are embedded within and reflect the authenticity of practice (Reeves et al., 2016a). Placements are learning contexts where students, who are newcomers to a workplace practice community, participate in a legitimate and dynamic learning process that is facilitated by experienced practitioners within the community (Patton, Higgs, & Smith, 2013; Skøien, Vågstøl, & Raaheim, 2009). This learning process is encompassed in Lave and Wenger's (1991) theory of Legitimate Peripheral Participation, as novice learners commence as peripheral participants in the routine activities of a workplace community and develop towards more integral participation as their skills and knowledge develop (Lave & Wenger, 1991; Patton et al., 2013). Skøien and colleagues' research utilised this theory to suggest that physiotherapy students were afforded progressive learning opportunities in placements as they became active participants in the workplace (Skøien et al., 2009).

In placements, students' prior knowledge and experiences also become part of the learning shared with their placement facilitators and other members of the practice community (Billett, 2014). Lave and Wenger (1991) theorised that this learning is transformative for all participants as practices in the community are influenced by the sociocultural knowledge and skills of learners. Therefore, while students in placements learn through participating in everyday activities embedded

within a community, their placement facilitators may also have opportunities to learn from the knowledge and skills that students demonstrate through participating (Billett, 2014; Lave & Wenger, 1991). As communities may be comprised of members from diverse backgrounds and roles (Cacciattolo, 2015), the theory of 'Legitimate Peripheral Participation' provides an appropriate heuristic to explore the reciprocal learning that occurs between facilitators and students in interprofessional placement contexts (Berry Lois, 2011).

Perceived differences in power and equity that exist between professions in workplaces may undermine this reciprocal learning and adversely impact interprofessional learning (Baker, Egan-Lee, Martimianakis, & Reeves, 2011; Thistlethwaite, 2016). These differences are exacerbated by processes of professional socialisation that define work boundaries and reinforce notions of hierarchy and position within a team. This may further inhibit students' acceptance of interprofessional learning opportunities that cross perceived professional boundaries or hierarchies (Baker, et al. 2011; Price, Doucet & Hall, 2014). For example, Annear and colleagues' (2014) study found that nursing students had negative attitudes about the skills and knowledge of experienced care workers who were facilitating their placement in a residential aged care setting. The care workers perceived that the nursing students viewed them as hierarchically inferior to themselves and identified that the students missed learning opportunities because the placement activities were not valued (Annear, Lea, & Robinson, 2014). Conversely, the carers' perceptions of professional hierarchy and tension that arose from this placement may have also limited reciprocal opportunities for them to learn from the students.

Professional tenets of power and hierarchy may be particularly influential where practice is interprofessional, spans perceived professional roles and

hierarchies, and crosses traditional service area boundaries such as those of health and education (Baker et al., 2011; Cumming & Wong, 2012). These boundaries that historically differentiate traditional sectors, such as health services from those in education and disability, are increasingly blurred as more effective outcomes are identified from integrated approaches (Arthur & Russell-Mayhew, 2010; Cummings & Wong, 2012). Therefore, more research is needed to examine interprofessional roles and education that incorporate this broadened range of service contexts. Cumming and Wong (2012) explored how interprofessional practice was enacted across allied health practitioners and ECEs who were team members in an early childhood intervention program. Whilst the team members respected the expertise and contributions of others, they positioned themselves according to a hierarchy of 'scientific knowledge' and professional credibility that preferenced the knowledge and skills of the health staff as experts and marginalised the pedagogical practices and knowledge of the ECEs (Cumming & Wong, 2012; Garvis, Kirkby, McMahon, & Meyer, 2016). Although interprofessional health and education practices in early childhood education settings are increasingly valued (McDonald, Proctor, Gill, Heaven, Marr, & Young, 2015), this study highlighted that issues of power may be more apparent in education settings where frameworks to guide the work of health professionals are less developed (Cumming & Wong, 2012; Garvis et al., 2016).

Background

Limited research has explored the experiences or learning for education professionals who facilitate placements for health professional students in education settings, which is critical for the effective facilitation of students' learning experiences in this contemporary service context. In the current study, Lave and Wenger's (1991) theory of Legitimate Peripheral Participation was utilised as a conceptual framework

to design a placement that captured reciprocal interprofessional learning opportunities for students and placement facilitators. In this design, experienced ECEs situated in early childcare education settings provided professional placements for novice speech-language pathology students from a health professional education program. The ECEs scaffolded the students to learn about normal child development through facilitating their gradual participation in everyday activities and routines of the childcare setting, whilst the students supported the ECEs' learning about children's communication skill development. Previous research findings suggest that ECEs' deep understanding of child development adds depth to traditional speech-language pathology 'point in time' interventions for children's communication skills (Brebner, Attrill, Marsh, & Coles, 2017), and that a role exists for speech-language pathology in facilitating children's early communication development in childcare settings (McDonald et al., 2015). In this study, Lave and Wenger's theorising about the transformative influence of sociocultural skills and knowledge that the students contribute within the community provided a framework to explore the gap in the literature related to what placement facilitators learn from students of professions that differ from their own; the perspectives of placement facilitators from education settings who work with health professional students; and to identify whether themes of power and hierarchy from previous research existed in this context.

However, in their study of workplace learning, Fuller and colleagues criticised this theory for its disregard for the process of experts learning from novices, and poor attendance to issues of power and inequality that have hindered relationships and learning in interprofessional studies (Annear et al., 2014; Cumming & Wong, 2012; Garvis et al., 2016; Fuller, Hodkinson, Hodkinson, & Unwin, 2005). They

recommended research to develop Lave and Wenger's theory by investigating how newcomers influence the learning, practice and power relationships of the community they enter (Fuller et al., 2005). The current study aimed to expand these constructs through exploring the perceptions of the ECEs who facilitated a placement for speech-language pathology students. The perspectives of childcare Directors, who managed the ECEs were also gathered as an alternative lens on the nature of the ECEs' learning.

The following research questions were explored through this study: (1) what are the perceptions of ECEs about their experiences and learning through facilitating a professional placement for speech-language pathology students? (2) What are the perceptions of centre Directors who manage the ECEs and oversee the children's education program about the learning of ECEs through the speech-language pathology student placement?

Methods

This study utilised an exploratory, multiple case study approach (Baxter & Jack, 2008) to enable the perspectives of the different participants, with their differing lenses on the interprofessional facilitation experience, to emerge. This approach enabled the binding of the cases for the interprofessional placement activities, which allowed the deep exploration of the nature of the ECEs' learning experience.

Study context

A partnership was formed between Flinders University Speech Pathology and Community Children's Centres South Australia, which is a network of childcare centres offering education and care services to children aged 0 – 6 years. This partnership created an interprofessional first year placement program for speech-

language pathology students completing a two-year Masters professional preparation program which was the students' first placement experience. Six students were embedded within one childcare centre one day/week for ten weeks. Each ECE supervised four students during the placements and students were rotated once into different areas of the childcare setting.

To fulfil the interprofessional learning objectives, the placement program was designed to provide shared learning opportunities between ECEs and speech-language pathology students. A Speech-Language Pathologist (SLP) practice educator was also placed within each centre to coordinate the placement program, communicate daily plans and processes with centre directors and ECEs, and to facilitate professional learning outcomes for the students. This SLP educator was present as a support for the students to access, but it was the ECEs who were present and embedded within the students' practice activities.

Participants

This study was conducted with ECEs who worked in community childcare centres and with centre Directors who also had ECE backgrounds.

Community Children's Centres. Centres in one Australian city were eligible for inclusion if they were in an area of relative socio-economic disadvantage according to the Socio-Economic Indexes For Areas (SEIFA) (Australian Bureau of Statistics, 2011). The research team contacted the Directors of eligible centres about participating. From those consented, four centres were selected that were dispersed geographically across the SEIFA to accommodate placements for the required number and residential region of students.

Early Childhood Educators. In Australia, ECEs must have a minimum Certificate III education and care qualification, or a diploma or university degree in early childhood teaching (Australian Children's Education and Care Quality Authority, 2016). Directors from two of the four centres agreed to release their ECEs to participate in a focus group interview. ECEs from these centres were eligible to participate if they had worked directly with the speech-language pathology students during their placement. Study information was provided to all eligible ECEs by the second author, who was not known to them. Seven female ECEs consented and were available to participate in one of two focus group interviews.

Centre Directors. Directors were eligible to participate in an individual interview if they were the Centre Director during the placement. Information was emailed to the four eligible Directors, inviting them to participate in an individual semi-structured interview. All four Directors, who were all female provided written consent and participated in an interview.

Data collection

The study methods were underpinned by a social constructivist approach that assumed each participant to have an individual understanding of their experiences and learning (Crotty, 2003; Patton, 2002). Data generated through focus group interviews with the ECEs and semi-structured interviews with Centre Directors assisted the researchers to understand how the meaning of the interprofessional learning was determined by the ECEs and Centre Directors (Crotty, 2003; Rabiee, 2004). Interactions between the ECEs during the focus group interviews also enabled them to construct shared meaning together through discussing their perceptions of the program, their understanding of the students' and their own learning with each other (Kitzinger, 1995; Stewart, Shamdasani, & Rook, 2007). This

provided rich information that included topics of consensus and discord not accessible via individual interviews (Kitzinger, 1995; Onwuegbuzie, Dickinson, Leech, & Zoran, 2009). Two focus groups of approximately forty minutes were conducted in meeting rooms at the participating centres. The first group had four participants and the second had three participants.

The role of Director is a sole position within each centre. The research team judged that their responsibility to oversee centre and staff operations meant that their perceptions about the placement and learning experiences of the ECEs differed from those of the ECEs. Therefore, individual semi-structured interviews were selected to gather information from this group (Patton, 2002). Interviews of approximately 40 minutes were conducted with four of the directors in their centre offices.

The interview guide used a funnelling question strategy that employed broad primary questions to explore the participants' perceptions and more specific secondary questions to clarify concepts and understanding of ideas (Stewart et al., 2007). Using Lave and Wenger's (1991) theory as a lens, topics included the participants' perceptions about the students' engagement in the placement; their own learning; student practices they had observed; and changes to the participants' practice resulting from the placement. As shown in Appendix 1 (online supplementary file), the same interview guide was used for the focus group and individual interviews with small alterations to the wording to suit the audience. The Directors' guide probed their experiences from the placement, however, each Director instead provided perspectives about the ECEs' learning and experiences, reflecting their role in oversight. This facilitated triangulation of the perspectives of the ECEs and Directors about the ECEs' learning.

Interviews were audio-recorded and transcribed verbatim, and the data was managed using NVivo 10.2 software. Memos recording interactions, ideas and emergent themes during the interviews were included in data analysis.

Data analysis

Braun and Clarke's (2006) framework for thematic analysis was utilised, enabling a rich, inductive description of the dataset (Braun & Clarke, 2006). Focus group and individual interview data were analysed separately to facilitate exploration of ECE and Director perspectives. Early themes identified from transcribed data enable interviewers to explore these in subsequent interviews (Patton, 2002).

Open coding was conducted to describe the transcribed data by the first author for focus groups and the third author for individual interviews. The first and third authors then independently and inductively categorised coded data from both datasets. Categories identified were discussed by the all three authors and consensus was achieved. These same authors identified themes together by examining and grouping categories. Table 1 shows an example of the relationship between a theme, its categories, codes and transcript data for the focus group and individual interview data.

INSERT TABLE 1 ABOUT HERE

Rigour. The second author independently coded segments of the focus group and individual interview datasets. These were discussed and compared with the first coding but no major discrepancies were identified. Categories were constantly compared and referenced with the open codes to ensure that the themes were grounded in the data (Onwuegbuzie et al., 2009). Themes identified through separately analysing the focus group and individual interview datasets were

summarised and then compared to verify whether the themes existed within and across the two datasets. This emergent-systematic design (Onwuegbuzie et al., 2009) revealed that the same themes were present when the datasets were triangulated. Theoretical saturation was achieved for the Director interviews. More focus group interviews would also have ensured complete saturation, but there were not ECEs available to participate.

The first and second authors were female SLP university educators who were experienced qualitative researchers and had worked with children in a speech-language pathology context. The researchers' backgrounds were known to the participants. The third author was a qualified SLP who was trained in qualitative data analysis. Whilst themes were identified inductively, the researchers' background inevitably influenced data interpretation.

Ethical considerations

This study was approved by the Flinders University Social and Behavioural Ethics Committee, Reference Number: 5005.

Results

Examples and stories that were narrated by the participants were often shared and consensus was high, including for negative perspectives. The perspectives of the ECEs and the Directors were each grounded in the reality of their roles. In this respect, the ECEs' views reflected their role to facilitate the placement and enact the children's care. They discussed their direct interactions with the students and the childcare activities they were completing together. The Directors' views reflected their role to oversee and manage the childcare program. They

considered how the team which included the speech-language pathology students functioned, and how the relationships and collaborations between the ECEs and students resulted in mutual learning opportunities.

Whilst the ECEs and Directors came from different stances, the same five themes were identified separately for the two groups. However, the prominence of the themes and the categories that comprised these differed across the two datasets. This reflected the differing position and perspectives of the ECEs and Directors. Table 2 shows the five themes and their major categories that were identified from data analysis and how these were distinguished across the two datasets. The themes are reported according to their prominence in the ECE focus group interviews, as the research questions were grounded in their learning experiences.

INSERT TABLE 2 ABOUT HERE

Theme 1: Adjustment and support for students to learn in the childcare environment

ECEs and Directors identified that students required a period of adjustment and support at the commencement of the placement to facilitate the students' knowledge of the setting and skills to complete everyday activities. Many ECEs identified logistical implications for their time, space and relationships early in the placement which resolved as the students became active participants in the routines of the children and centre:

I enjoyed having them here but I can say the worst thing is it's another adult in the room. Because child care... can be a bit busy and that can affect the environment and it can affect the children." Participant 1. "[But] their personalities, they were young and fun." Participant 2. (Focus group 2)

Assisting students to adjust was important to support their participation in the

activities and routines of the learning environment. Some ECEs identified that more opportunities for students to observe them completing childcare activities would support students to develop practice knowledge and skills. This perspective was not shared by the Directors who preferred the students to participate in tasks from the outset of the placement. However, all participants agreed that a structured induction to expose students to the processes of the centre facilitated their integration into everyday routines and activities:

“They became part of the service because they were inducted in our code of practice, and they were introduced to staff; they knew what they were coming to.” (Director 1)

ECEs and Directors perceived the SLP educator as an important conduit between the students and the centre staff. The SLP educator helped the students to adjust for the learning context through linking with professional concepts and ensuring students were accountable for their learning and behaviours.

“When they had a supervisor here, she could direct all those sorts of things as well. So they weren't idly just doing nothing or floundering or you having to ask all the time, well what are you going to do next?” Participant 3. “Yeah. If we had any issues or if we weren't sure we could ask [the supervisor] and she will come and talk to us.” Participant 1. (Focus group 1)

Theme 2: Relationship is paramount

The ECEs and Directors identified the professional demeanour of the students and their willingness to contribute to the tasks and routines of the centre as facilitating positive relationships with the staff. The students were perceived as fast learners who generated positive and engaging learning tasks with the children in the centre:

“The students [were] quite professional and their interactions respecting our space and the children's space... and impressed with the way they actually

developed some really profound relationships with children and the staff.”
(Director 4)

The ECES identified when the students initiated involvement in childcare activities, and as the students demonstrated relevant skills and aptitudes, they were integrated as part of the ECE team. Over time, the students used speech-language pathology techniques to elaborate and extend the childcare activities. The ECES observed the students' skills and noted positive relational outcomes from using these techniques with the children:

“But when they got a book out or something, I noticed the children were coming to them. They were relating to the children and that was what I was watching.” Participant 1. “Usually you know how hard it is if someone's got group time and the children don't know them well...But they did really well to get [children' involved]” Participant 2 (Focus Group 2)

The Directors perceived that students' contribution to the ECES' usual care routines and activities enabled them to form positive work-based relationships in the first days of the placement. These relationships grew further as the students and ECES developed trusting, non-judgmental relationships through mutually respecting each other's skills and knowledge:

The fact that [the students] developed that trusting relationship, that they weren't here to judge the staff and they were here to offer different perspectives and more professional focus. (Director 4)

The ECES identified the SLP educator as having a pivotal role in mediating relationships between the staff and students and assisting with problem resolution. The SLP educator gathered the ECES' perspectives about the students' participation and progress in the placement. As a result, the ECES perceived that their contribution to the students' learning was valued, which facilitated their investment in

the placement:

"[SLP educator] was good. If I wanted to ask her anything or if the girls needed any support, she was always there for them." Participant 1. "She sort of jumped in [to help] as well." Participant 3 (Focus group 2)

Theme 3: Working and learning together

As the ECEs and Directors perceived the students' involvement in centre activities to make a positive and genuine contribution to the work, the ECEs were able to invest more time to their learning relationships with the students.

"It was good that they got dirty and they got into everything. They weren't just sitting back and observing everything but they actually offered to give us a hand ... so that was nice to see that they were willing to get involved." Participant 1. "In the kindy room they took group time for us....it just made a bit of a difference, so that was good." Participant 2 (Focus group 1)

Being embedded with the ECEs in the centre made learning opportunistic, context driven and immediate. As part of learning to complete childcare activities, students asked questions of the ECEs about their knowledge and skills and were observed by the ECEs to apply this learning. The ECEs valued these opportunities to provide their expertise about the children to the plans and activities the students were enacting. They also accessed insights and advice from the students about children's communication development. In this respect, participants understood the placement to provide genuine opportunities for mutual learning and reciprocity.

"They actually became part of the team ... they're always asking and they would let us know exactly what they were looking at; which child they would be focusing on." Participant 1. "They were willing to just jump in and do anything as well. It didn't have to be speech related." Participant 3 (Focus group 2)

For the Directors, the 'Working and learning together' theme was the most prominent of the five themes, reflecting their role in managing how the ECEs developed and learned professionally. The Directors understood that the contextualised and work-based participation of the students also facilitated the ECEs' learning, as new and different perspectives were shared through enacting mutual activities and goals.

"I think because the staff and the students worked as a team there was a lot of sharing going on, another opinion, you know, fresh eyes seeing. ...it just enhanced the whole program." (Director 1)

The Directors perceived that working together with other professionals in the childcare context provided a flexible, collaborative method appropriate to the varied levels of education and experience amongst the ECEs. The longitudinal nature of the placement facilitated the Directors and ECEs to observe how the students had applied the ECEs' teaching and advice into their practice, and how the children responded to communication supports that the students embedded into the everyday activities. In this respect, Directors commented that the placement had enabled the ECEs to develop skills related to facilitating children's communication, and had also increased their awareness and proficiency to work with another professional group.

"I think firstly and most importantly, they learnt to work with [other] professionals... and in an intense way because we don't get that very often in child care. They became part of the process rather than just being an isolated add on." (Director 4)

Theme 4: Staff Skill Development

The ECEs and Directors both understood the learning from the placement as beneficial for ECEs and students.

"We felt that we were part of this project, of a certain part of the project.... This placement was also what we got out of it." (Director 4)

Whilst many ECEs perceived that their practises had not substantially altered as a result of the placement, both ECEs and Directors identified that the students had reinforced the ECEs' existing skills. Observing the students enacting these skills in everyday activities also provided the ECEs with a clear framework to embed them as part of their usual practice.

"They basically said that we were doing everything really well and they were doing the same as what we were doing....Yeah, just to know that we were doing a good job." Participant 4. "I liked the ideas and the different activities they brought. Because I've used a few of them in my activity times."
Participant 3 (Focus group 1)

However, the Directors also demonstrated an abstracted view of the mutual benefit for ECEs and students. They each perceived that the ECEs had renewed confidence to incorporate and elaborate the strategies suggested by the students into a range of childcare activities.

"Definitely... They're still referring to some of the learnings that they had during the time the students were here... I know that [staff member] particularly talked about that quite, for a period of time and that experience and that learning. I think any learning, even if it just triggers you to notice something abnormal or be guiding you to take the right steps, then it's much more value." (Director 4)

The Directors also considered the students as a source of professional feedback for the ECEs. The interactions between the students and ECEs facilitated the ECEs to understand themselves as experts with valuable insights to contribute in professional learning contexts.

"I think they were pretty eager and excited about, because we haven't had any professional sort of feedback....So I think they all took it on board as something exciting, something new and something they could learn from as well. So it was a positive experience for all of them." (Director 2)

Theme 5: Holistic, child oriented approach

The placement was designed to embed the students within every day childcare routines and activities. Mutual goals related to these activities were negotiated between the students and ECEs. The ECEs and Directors perceived this model to provide students with a holistic understanding of children and to facilitate the students' understanding of the role and skills of ECEs.

“So it was that holistic approach, and they got to know - because of the flexibility of the staff as well. Just an example, when they were outside... they didn't just focus on their group of children; they interacted with each set, across the board.” (Director 1)

In this respect, the embedding of the students within the usual routines and activities of the centre facilitated their interprofessional learning. In turn, through opportunities for the students to demonstrate speech-language pathology skills in their enactment of usual care activities, the ECEs also learned more about embedding communication skills within their everyday practice.

“Asking [students] for their advice because sometimes... you can't put your finger on exactly what it is with a child and [the students] just gave you a bit more insight because they knew a little bit more or could give you another perspective” Participant 2. “It was bringing out other ways that we can communicate. How we use sign language sometimes, and made you think 'we really should be doing more with that'.” Participant 1 (Focus group 2)

Discussion

This study captured the perceptions of ECEs and Directors who work in community childcare settings about their supervision and learning experiences from facilitating professional placements for speech-language pathology students who were early in their qualification programs. Attention was paid to service boundaries

and traditional professional hierarchies that were identified as research priorities in previous studies (Fuller et al., 2005; Garvis et al., 2016; Price et al., 2014). The five themes identified from data analysis revealed how the students were gradually integrated within the ECE community of practice, and the consequential emergence of reciprocal learning opportunities. In this Discussion, Lave and Wenger's (1991) theory of 'Legitimate Peripheral Participation' is used to interpret the findings.

The first and second themes depict predisposing factors that facilitated the students' legitimacy as part of the ECEs' community of practice. During the period of orientation and adjustment described in the first theme, the ECEs did not perceive that the students had the skills necessary to participate in their work. In this respect, the students were peripheral to the practice community whilst this period of adjustment was enacted. Structured induction, some opportunities for modelling, and the bridging role of the SLP placement educator were identified to assist students to adjust. These were important to support students to identify the salient everyday activities and practices of the community and enabled the ECEs to demonstrate their expertise. This degree of structure may be critical where the interprofessional nature of the placement requires students to adjust for unfamiliar practice contexts, such as those that cross traditional service boundaries (Garvis et al., 2016). Skøien and colleagues (2009) also identified that a welcoming, structured placement environment assisted students to participate and gain access to a range of learning activities (Skøien et al., 2009), which was reported in the second theme as a catalyst for developing positive relationships between the ECEs and students.

These positive relationships were critical for the students' progressive access to childcare activities that facilitated the ECEs and students to share their practice perspectives and supported their mutual learning. The Directors and the SLP

educator provided an assistive function that permitted the relationship between the ECEs and students to be gradually negotiated (Lave & Wenger, 1991). Over time, this facilitated the ECEs and students to develop their understanding of their respective roles and contributions through establishing connections, mutual goals and enacting childcare activities. Professional hegemonies that underpin hierarchies between health and education may be reinforced by poor shared understanding of roles (Baker et al., 2011; Garvis et al., 2016). Therefore, the skills of the Directors and SLP educator to clearly convey the interprofessional placement objectives, ensure positive communication between the ECEs and students, and share knowledge may have been critical to support opportunities for positive mutual learning.

The students were perceived as willing to initiate participation in the everyday activities of the ECE community, including in activities not usually completed by SLPs, such as sleep-time, outside and physical play. Through their participation, the ECEs observed the students' skills and aptitudes demonstrated in the childcare context. Participating in and valuing these activities facilitated the students' legitimacy in the community as it reinforced the importance of the ECEs' skills and knowledge. As the degree of access that newcomers have to the activities of the community is related to whether members consider them to be legitimate (Lave & Wenger, 1991); the students' genuine engagement and skills to enact these activities may also have prompted the ECEs to be accepting of opportunities for learning (Billett, 2014; Lave & Wenger, 1991; Patton et al., 2013).

The remaining themes captured how the knowledge and skills of the ECEs and students together benefitted from reciprocal learning opportunities afforded from participating in the practice community. The fifth theme described the collaboration

between the ECEs and students to progress mutually pertinent goals related to the children. Similar to studies reporting learning between students in interprofessional education activities (eg. Brewer et al., 2017; Reeves, et al. 2016a; Thistlethwaite, 2016), opportunities for the ECEs to engage with interprofessional learning arose from their shared endeavours and mutual feedback with the students.

These shared endeavours were evident in the third theme, as the Directors identified that opportunities for the ECEs to observe the students elaborating tasks with relevant communication goals for children related to the ECEs' usual learning preferences. The Directors described the nature of ECEs' learning in the placement as applied and social, and including modelling, elaboration and extension of their practice activities. Learning opportunities were also situated in their usual work context, suggesting that this interprofessional learning was socially and contextually constructed, as indicated in Lave and Wenger's (1991) theory. Fuller and colleagues (2011) noted that the process of experienced practitioners learning from novices in a community of practice is poorly conceptualised in this theory. In this study, opportunities to observe and participate with the students facilitated a transformational learning process that may have complemented the learning preferences of the ECEs. Further research to understand the learning preferences and processes germane to discrete practice communities may be relevant to describe how different professions can learn together.

The absence of themes regarding perceptions of power or hierarchical differences between the ECEs and speech-language pathology students in this study was notable. In their criticism of the theory of Legitimate Peripheral Participation, Fuller and colleagues (2004) suggested that how equity influences relationships between members in a community of practice require further investigation. Power,

hierarchy and the protection of professional pedagogies that relate to notions of knowledge and status are commonly reported in interprofessional research (e.g. Annear et al., 2014; Baker et al., 2011; Price et al., 2014), and these may be particularly important where interprofessional relationships cross traditional service boundaries, such as those in health and education practice (Cumming & Wong, 2012; Fuller et al., 2005; Garvis et al., 2016). The placement design for this study was similar to Annear and colleagues' (2014) research where the care workers who supervised nursing students perceived that the students lacked respect for their knowledge and skills, as the students viewed the work as inferior to their professional status (Annear et al., 2014). The interprofessional relationships and the childcare setting of the current study may have also permitted power differentials, as the ECEs, who may be perceived as having lower status in respect to training, knowledge and professional hierarchy, were supervisors to speech-language pathology students, who identified from a health professional background. If themes of power or hierarchy had emerged from the current study, these may have undermined interprofessional learning outcomes (Arthur & Russell-Mayhew, 2010; Thistlethwaite, 2016), and may have diminished shared opportunities for learning= (Fuller et al., 2005; Lave & Wenger, 1991).

However, in contrast with previous studies, there were factors described in the second theme that may have contributed to this absence of power differential, and enabled respectful, non-judgmental relationships between the ECEs and students to develop. These included the assistive roles of the Directors and SLP educator as they facilitated the ECEs and students to understand each other's skills and knowledge and supported the mutual learning objectives of the placement. However, the design of the placement as the speech-language pathology students' first

professional experience enacted early in their degree program may also have contributed to the positive interprofessional relationships that were identified. Interprofessional learning opportunities that are enacted early in students' professional programs may provide alternative discourses and practice models to dominant perspectives that are reinforced through processes of professional socialisation (Billett, 2014; Godsey, 2011). These dominant views about professional values and practice, roles and boundaries, knowledge, power and status influence how students learn to enact practice and how relationships with other professionals are developed (Arthur & Russell-Mayhew, 2010; Baker, et al., 2011; Godsey, 2011). Such barriers to successful interprofessional learning (Thistlethwaite, 2016) may have specific relevance when practice is enacted across traditional service boundaries, where concerns about power and hierarchy may be more prominent (Arthur & Russell-Mayhew, 2010). The absence of power and the positive relationships between the ECEs and students described in the second theme were critical to the students' endorsement in the community of practice. This in turn facilitated the ECEs to accept and incorporate learning opportunities presented from working with the students into their practice (Lave & Wenger, 1991). This finding that interprofessional learning opportunities situated early in students' professional identity development may moderate the influence of power or hierarchy has implications for future interprofessional education curricula, and warrants further research.

In the fourth theme, the Directors confirmed that the ECEs had discussed their learning together and applied skills learned with the students in their practice subsequent to the placement ending. The findings of this study therefore support Lave and Wenger's (1991) assertion that newcomers can influence the knowledge

and practice of experienced community members, and this facilitates practises to change and evolve over time. As with other studies of student learning in interprofessional placements (Brewer, et al. 2017; Reeves, et al. 2016a), the ECEs' learning was facilitated by authentic opportunities for the ECEs and students to engage and work together in the workplace. Further, the findings also suggest that participating together may facilitate community members to accept learning from newcomers who are not ordinarily part of the community, or differ in professional background from themselves. The reciprocal learning benefits that resulted from the students' participating and contributing legitimately within the ECE community have implications as an alternative to observation and imitation that are dominant learning tools in traditional placements (Mann, 2011). The learning benefits for the ECEs also have implications for models of professional development and training which need further investigation. Lave and Wenger's (1991) theory of Legitimate Peripheral Participation may therefore reveal novel ways to consider the nature of interprofessional education and learning, where facilitating learning as part of a community of practice, and through authentic participation in everyday activities may positively influence perceptions of the skills and knowledge of different professions represented.

This study is constrained in its scope to generalise beyond the childcare context and participants, and has several additional limitations. Information gathered reflected the experiences of ECE's who had worked with a single cohort of speech-language pathology students from one university. Further research is important to determine if similar findings are identified with interprofessional facilitators in other education settings. In this study, the ECEs' experiences and learning were reflected through the participants' perceptions rather than through research observations.

Additionally, member checking was not conducted to verify the themes identified as many participants did not wish to be contacted, and staff turnover at the participating centres in the intervening period between data collection and analysis impeded contact with other participants. However, the triangulation of the ECE and Director data revealed similar perspectives despite their different positions as study participants and in enacting the placement program. As part of the case study approach (Baxter and Jack, 2008), this triangulation assisted to verify the themes identified, and provided credibility for the findings (Onwuegbuzie et al., 2009). Finally, the students' perspectives of their learning and experiences embedded in the ECE community of practice were not gathered. Their viewpoints are important to inform how Lave and Wenger's (1991) theory may apply to students' learning in interprofessional placements. The students' understanding of power and relational dynamics that emerge in similar placements would also be beneficial as future research.

Concluding comments

As few studies have explored interprofessional placements that span professional roles and service boundaries, this study aimed to describe the learning and experiences of ECEs who were placement facilitators for speech-language pathology students. As the study design was informed by Lave and Wenger's (1991) theory of Legitimate Peripheral Participation, students were embedded in childcare settings, and participated in the everyday activities and routines of the ECEs. Through the students' enactment and valuing of these activities, the ECE's progressively accepted them into their community of practice. This fostered opportunities for shared interprofessional learning between the ECEs and students, assisted by their positive relationships and perceptions of mutual respect for their

skills and knowledge. The features of the placement design may have diminished the impact of power and professional boundaries that influence interprofessional education and practice outcomes. These findings suggest that interprofessional placements that embed students as active and legitimate participants of practice communities may facilitate learning benefits for placement facilitators and students. Further research is needed to explore the implications of this study for interprofessional learning enacted across traditional service boundaries, and professional development and training.

Declaration of interest

The authors report no competing interests. The authors alone are responsible for the writing and content of this article.

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Table 1: Examples of Categories, Codes and Raw Transcript data from the Director interviews and Focus Group Interviews for the theme 'Working and Learning Together'.

Theme: Working and Learning Together			
Interview type:	Category	Code	Raw transcript data
Director interview	Collaborating and contributing to the team	Students contributed as part of the staff team.	<i>"There was not a task that they were asked to do that they didn't do, and they became very quickly an asset."</i>
	Learning from and with each other	Respecting different skills and knowledge	<i>"To respect that the different skills and knowledge that people bring, differences."</i>
Focus group interview	Collaborating and contributing to the team	Students were willing to sbe involved	<i>"They were willing to get involved with what we do."</i>
	Learning from and with each other	Students provided different insight or perspective	<i>"The just gave you a bit more insight because they knew a little bit more or could give you another perspective of it."</i>

Table 2: Relationship between themes and major categories identified from focus group and director interviews.

Theme	Focus group categories	Director interview categories
Adjustment and support for students to learn in the childcare environment	Adjustment periods for students and staff	Induction into the work environment
	Structures to enhance and support learning	Structures to enhance and support student learning
	Induction into the work environment	adjustment period for students and staff
Relationship is paramount	Student professionalism and demeanour	Communication and relationship with families
	SLP educator facilitating relationships	Professional, competent students
	Relationships with staff and children	relationships with staff and children
	Parents	SLP Educator facilitating relationships
Working and learning together	Collaborating and contributing to the team	Collaborating and contributing to the team
	Learning from and with each other	Learning from and with each other
Staff Skill Development	Outcomes for staff	Positive outcomes for staff
		Professional support and feedback
	Resource development	Contributed useful resources
Holistic, child oriented approach	Offers more holistic view of the child	Viewing children holistically
	Group and whole room approach	Flexible, child oriented approach
	Early proactive approach	Inclusive group approach