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Listening to the Voices of Education Professionals Involved in Implementing an Oral Language and Early Literacy Program in the Classroom

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Abstract: This paper explores teachers' and teacher assistants' self-efficacy of delivering PrepSTART, a classroom based, oral language and early literacy program for five-year-old students. In the current study, speech pathologists developed, provided training and monitored program implementation. Teachers and teacher assistants (n = 17) shared their experiences of delivering PrepSTART through a series of focus groups. A content analysis was conducted to determine key themes in participant responses. These themes were then analysed in relation to the four self-efficacy components (mastery, experience, vicarious experience, verbal persuasion and emotional arousal). Differences in levels of understanding about oral language development, communication between professionals, and the importance of building networks emerged as key themes. An improved understanding of the self-efficacy of professionals regarding the implementation of oral language programs will further facilitate the interdisciplinary approach that is needed to promote early academic success for students.

Introduction

Promoting young children's oral language and literacy outcomes cannot be achieved by the efforts of one professional (Anderson, 2013), but requires a team of professionals to work together to understand the complexity of learning and how this can be achieved in relation to individual children (Bronstein & Abramson, 2003). Collaboration in early years oral language programs involves educators, allied health professionals, and other professionals sharing knowledge and information, validating each others' roles, and providing input around which strategies promote positive outcomes for all children (Jackson, Pretti-Frontczack, Harjusola-Webb, Grisham-Brown & Romani, 2009). The distributed expertise allows teams to be able to respond flexibly to changing circumstances, departmental requirements, and student needs.

In an effort to achieve optimal educational outcomes for vulnerable young people, schools across Australia have implemented classroom based, early intervention programs aimed at improving oral language and literacy skills of their preschool and early primary-school children (e.g., O'Connor et al. 2009; McIntosh et al., 2007; Moore & Hammond, 2011). Many of these programs were developed by speech pathologists because of their specific expertise around oral language development and disorders. However, the

implementation of these programs often involved teacher assistants (Moore & Hammond, 2011), or teachers (O'Connor et al., 2009).

Few studies have explored the perspectives of the teacher assistants trained in these programs about their own capabilities of implementing oral language and literacy programs. Although teacher assistants are often expected to deliver programs in classrooms, they may not actually have the perceived capability to do so. One American study explored the opinions of teacher assistants who delivered a program for children with disabilities in a general education classroom (Giangreco, Edelman & Broer, 2001). Findings suggested that teacher assistants sought ongoing input about the education program for the children with whom they worked. Teacher assistants also reported positive feelings toward their involvement in the classroom based program, which was attributed to the higher levels of responsibilities and respect from their teacher colleagues.

More recently, the perceptions of speech pathologists working with teachers and teacher assistants was studied by Serry (2013). Recognising the important role speech pathologists play in primary schools, Serry interviewed nine speech pathologists working in these settings regarding their perceived facilitators and barriers to working with low-progress readers. Based on these findings, Serry emphasised the importance of inter-professional collaboration, including consultancy to education professionals, but also called for more transparent role definitions within these collaborations.

The current paper explores the self-efficacy of teachers and teacher assistants working alongside speech pathologists to deliver PrepSTART, an oral language program with five-year-old children at three schools in Australia. Focus groups were conducted with the teachers and teacher assistants to determine teachers' and teacher assistants' self-efficacy regarding their involvement in the program. The children's oral language and early literacy outcomes were conveyed in a previous paper (Lennox, Westerveld, & Trembath, 2016) and so the focus for this report is on a qualitative investigation that served to empower the voices of the teachers and teacher assistants.

Oral Language Programs in School Settings

It appears that when educational and clinical expertise is combined, it promotes best practice and accurate identification of at-risk learners (Antoniazzi, Snow, & Dickson-Swift, 2010). Recent efforts to enhance the oral language and early literacy competence of young school-age children has focused on the role of the teacher in pre-school and primary school classrooms (Snow et al., 2014, Wilcox, Gray, Guimond, & Lafferty, 2011). For example, in the Teaching Early Literacy and Language program in pre-school settings, teachers received professional development, classroom support and mentoring to implement the curriculum (Wilcox et al, 2011). Findings showed that curriculum packages that support teachers in classroom instruction of oral language and early literacy hold potential for enhancing outcomes for children in these areas (e.g., Snow et al., 2014).

Teacher Professional Development

The importance of professional development for teachers has been reported in a number of other studies in the United States and Australia. Neuman and Wright (2010) explored the effectiveness of coaching on early childhood teachers' early language and literacy practices and again found improvement with teachers who had received coaching. Findings from Snow et al. (2014) highlighted the important role played by speech

pathologists in supporting teachers to deliver reading instruction that is evidence based. In their study they found significant differences in students' vocabulary, syntactic understanding and some aspects of phonemic awareness between students whose teachers had received professional development and those whose teachers who did not receive professional development. All of these studies clearly demonstrated the importance of incorporating individually tailored, on-site, and sustained professional development for teachers. Consistent with Dickinson's (2011, p. 967) observation that "the coming years will be a time when researchers look more closely at interactions in classrooms and strive to create professional development, coaching and curricula that result in substantial improvements in teachers' methods of fostering language learning", it is clearly important for speech pathologists and teachers to engage in professional development opportunities.

Interdisciplinary ways of working

Establishing interdisciplinary teams involves negotiating roles and spaces as the traditional work boundaries are crossed (Waitoller & Kozleski, 2013). Boundaries indicate a disjuncture in practice between sites that have relevance to each other. Boundary practices are those practices in which the involved players are engaged (Waitoller & Kozleski, 2013). Therefore, the development of neophyte professionals, management of the complex health issues of patients, or the support of children's learning can lead to boundary practices, as common goals are pursued in different ways by different groups of players, dependent upon the perspective held.

Williams (2014) concluded in her study involving teacher educators that managing different perspectives necessitated building "trusting and respectful relationships through dialogue" (p. 325). However, obstacles to working inter-professionally include: communication (Anderson-Butcher et al., 2006); building networks (Brenner et al., 2007); differences in conceptualising need (Stone et al., 2007); and other cultural variations between professional groups (Clarke et al., 2007).

In the Australian literature, there is a shortage of practical examples on interdisciplinary teams for the promotion of young children's well-being. According to Bradshaw, Hoelscher, & Richardson (2007) "...two main approaches to measuring child well-being can be taken: a rights-based approach or an empirical approach, including research on subjective measures of well-being". Using a rights-based approach, Bradshaw et al. (2009, p.6) stated:

Child well-being and deprivation represent different sides of the same coin. From a child rights perspective, well-being can be defined as the realisation of children's rights and the fulfillment of the opportunity for every child to be all she or he can be. The degree to which this is achieved can be measured in terms of positive child outcomes, whereas negative outcomes and deprivation point to the denial of children's rights.

From a life course or developmental perspective, childhood well-being is typically associated with developmental transitions between different stages in life. Ben-Arieh (2006, p.2) stated: "Often, especially among young children, the standards for development are based on a preferred adolescent or adult outcome, implying the need to prepare children for their transition into later stages in life or to monitor the developmental process". Moreover, Manning (2014) argued that the isolated effort of individuals, including individual disciplines, cannot solve all problems or significantly improve the outcomes of children in a disciplinary vacuum. Rather, a holistic, inter-professional approach is required - this involves a major paradigm shift beyond the current system of silos.

While the academic literature can guide inter-professional education in health care

settings, there continues to be limited information to help guide a similar process in relation to educational settings (Salm, Greenberg, Pitznel, & Cripps, 2010; Tourse, Mooney, Kline, & Davoren, 2005). This highlights a gap in the current literature with respect to exploring relationships between health and education professionals to enhance children's outcomes.

Some of the challenges to interprofessional training have come from a tradition of educating professionals by immersing them into one chosen profession; the proliferation of "silo" models within curricula; and a structure created by discipline-specific professional codes and credentialing/licensing bodies that often further constrain collaborative efforts (Bluteau & Jackson, 2009). There is also the perception that opportunity for interdisciplinary collaboration in educational settings is limited due to time constraints (Bronstein & Abramson, 2003; Friend & Cook, 2010). The current study investigated teachers' and teacher assistants' experiences in delivering an oral language and early literacy program. Speech pathologists provided coaching and feedback to support staff in implementing the program.

About the PrepSTART Program

PrepSTART is a classroom-based oral language and literacy program developed by speech pathologists and implemented by teachers and teacher assistants (Lennox, Westerveld, & Trembath, 2016). PrepSTART uses twelve commercially available age-appropriate books and runs for 24-weeks, across the school year. Each book is targeted for a two-week period. The program is designed to meet the diverse learning needs of children and to support the implementation of the Australian Curriculum by using interactive book-based activities targeting four key areas; narrative, shared reading, vocabulary, and phonological awareness.

The Context

Following a piloting stage (Lennox & Westerveld, 2014), PrepSTART was implemented in three primary schools situated in a culturally diverse, low socio economic area in Queensland, Australia. To investigate the effectiveness of the PrepSTART program, we used an experimental research design in which six of the eight classes across the three schools participated in the PrepSTART project, and the remaining two classes continued their regular classroom instructions. The program was built upon productive partnerships with children, staff, parents, and a local university with the ultimate aim of accelerating the oral language and literacy progress of students during their first year of schooling and thus prepare them for lifelong literacy. The program was part of a federally funded National Partnership Project, which was aimed at supporting the diverse needs of these schools.

PrepSTART ran for one hour per day, four days a week and was comprised of 30-minute whole class and 30-minute small group sessions. All sessions followed an explicit teaching framework and small group sessions consisted of children splitting into three or four groups led by a teacher or trained teacher assistant. To increase the fidelity of the intervention and ease of administration all session plans were scripted.

A one-hour professional development session, facilitated by the school-based speech pathologist, was held at each school site prior to the implementation of the program. This communicated the expectation of the program, covered the theoretical basis for each of the key areas, and outlined the logistical requirements. Furthermore, it allowed an opportunity for teachers to have a 'hands on' look at resources and session plans prior to the start of the program. This was the starting point for the teachers' learning journey as a precursor to the coaching process.

Teachers and teacher assistants were engaged in tailored coaching with the speech pathologist in the classroom. Coaching involved modelling by the speech pathologists and observing of teachers and teacher assistants implementing the program across each of the key areas of intervention. All teachers and teacher assistants were videoed for five to ten percent of total intervention time to ensure treatment fidelity within and across schools. Speech pathologists gave written feedback on each session observed.

Theoretical Framework

The research is grounded within a teacher self-efficacy perspective. Self-efficacy operates as a key factor in a generative system of human competence (Bandura, 1997). Teacher self-efficacy relates to the beliefs teachers hold about their own perceived capability in undertaking certain teaching tasks. Bandura (1997, p.3) defines self-efficacy as “beliefs in one’s capabilities to organise and execute the course of action required to produce given attainments”. Self-efficacy therefore influences thought patterns and emotions that enable classroom actions. In the context of education, teacher self-efficacy is considered a powerful influence on teachers’ overall effectiveness with children. Tschannen-Moran and Woolfolk Hoy (2001) suggest that supporting the development of teachers’ self-efficacy is essential for producing effective, committed and enthusiastic teachers.

Teacher self-efficacy is a motivational construct that directly influences outcomes in the classroom. It has been related to child achievement (Moore & Esselman, 1992; Ross, 1992); increased job satisfaction (Caprara, Barbarnelli, Borgogni & Steca, 2003); commitment to teaching (Coladarci, 1992); greater levels of planning and organisation (Allinder, 1994); and working longer with children who are struggling (Gibson & Dembo, 1984).

Teacher self-efficacy is itself influenced by four sources: mastery experiences (serving as an indicator of capability); verbal persuasion (verbal influences on your perceived capability); vicarious experiences (modelling and observation of techniques); and emotional arousal (associated with the perceived capability that influence the process and outcomes of the task attempted). The four sources undergo a form of cognitive processing that determines how the source of information will be weighted and influence the desired teaching task. Mastery experiences are considered the most powerful influence as they provide authentic evidence of one’s performance in a teaching situation (Bandura, 1997; Mulholland & Wallace, 2001). Successful performance by a teacher leads to increased self-efficacy, while a failure creates a decrease in self-efficacy. As teachers develop mastery experiences that lead to accumulating increases in teacher self-efficacy, they rely on these as memories and interpretations of similar past teaching experiences (Tschannen-Moran, Woolfolk Hoy & Hoy, 1998).

This study focuses on perceptions and beliefs of the teachers and teacher assistants who were directly involved with the delivery of an oral language and literacy program, PrepSTART. The research question is:

- What are the self-efficacy of teachers and teacher assistants in relation to the implementation of the PrepSTART oral language and literacy program with five-year-old students in schools?

Findings are important as they not only improve our understanding of the perceived capability of the teachers and teacher assistants to deliver the PrepSTART oral language and early literacy program, but also provide an insight into the educators’ relationship with the speech pathologists.

Method

In this study we examine the teacher self-efficacy from a social constructionist perspective that emphasises the social processes by which people develop their social reality and knowledge about that reality in an ongoing way in interaction with others (Cohen, Duberley & Mallon, 2004). The approach enables the authors to capture and communicate the emotional nature of lived experiences (Clandinin & Connelly, 2000) of the professionals involved. This approach also promotes reflective practice as the thoughtful, systematic, critical, exploration of the complexity of one's own learning and practice (Samaras & Freese, 2006).

Ethical clearance for this study was granted from the university ethics committee to undertake focus groups. Permission was gained from the school principals to advertise the project with the teacher assistants and teachers involved in the PrepSTART program. Teacher assistants and teachers could contact the research team directly if they wanted to participate. All of the teacher assistants agreed to participate. Eight out of nine teachers agreed to participate.

Focus groups were conducted with the nine teacher assistants and eight teachers (n = 17). A total of six focus groups were run with a maximum of three participants in each focus group. A separate focus group was held for teacher assistants and teachers at each of the three school sites. The focus groups were conducted at the end of the school year, after the completion of PrepSTART. Interviews were held after school in the teacher staff room (at a time convenient to the participants) by one of the researchers. The researcher was not known by the participants and had not participated in the PrepSTART program. Interviews lasted for 45-minutes and were audio recorded. After the interview, the audio recordings were transcribed and de-identified. The de-identified transcript was sent back to participants for checking. Only minor changes were made to the transcription before they were returned to the researchers.

The researchers conducted a content analysis of the transcripts. Content analysis is "...a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use" (Krippendorff, 2004, p.18). Coding for manifest content (Wallen & Fraenkel, 2001) was used, acknowledging what was stated in the transcripts. A fifteen stage content analysis (based within constant and comparative methods) was used as a key guide to identify key themes and meaning (Carana, Delahaye, & Sekaran, 2003). Themes were identified alongside frequency counts. From this analysis, it was possible to determine key themes regarding the teachers' and teacher assistants' beliefs about their implementation of the program. The themes were then analysed with teacher self-efficacy theory to develop a theoretical understanding.

Findings and Discussion

The themes and frequency counts are presented below. Each theme is theorised within teacher self-efficacy theory.

Filming

The teachers and teacher assistants at each of the schools participated in professional development before and during the program with the speech pathologists. As part of the coaching process, at times the teachers and teacher assistants would be filmed with written

feedback provided by the speech pathologist. This type of ongoing mastery of experience appeared to positively influence self-efficacy to implement the program. The regular feedback in the video sessions appears to have supported a culture of continuous improvement for the program. The speech pathologists were able to provide support and guidance for individuals in the program and also cater ideas within the program to individual needs. All of the teacher assistants and teachers believed the feedback was important.

Examples of comments included:

But the evaluation afterwards that the speech pathologist does is valuable.

Feedback is amazing (Teacher 4).

You can see how well you're doing and different strategies that we can try even if we've missed something (Teacher Assistant 3).

It's nice that someone is there giving you feedback because sometimes you don't see what you're doing well (Teacher Assistant 5).

Although the teachers and teacher assistants were initially apprehensive about the filming, they became aware of the importance of the filming to improve their own knowledge and skills about the program. However, emotion around the mastery of experience remained strong and made most of the teachers (seven out of eight) and teacher assistants (eight out of nine) feel nervous. Comments included:

I don't like having my photo taken and I feel more nervous. I probably mumble to myself (Teacher Assistant 1).

No I hate it. I would prefer me not to know and have the camera put in the room (Teacher 2).

It's a nervous thing. Yeah, the days I'm recorded are the days where something goes wrong (Teacher 3).

Overall mastery experience appeared to be an important influence on beliefs about the program for all of the teachers and teacher assistants. Positive completion of the tasks with the children appeared to raise perceived competence and confidence levels in delivery of the programs. The memories associated with positive completion assisted in further developing positive beliefs towards the program. Mastery experience is considered the most powerful influence on positive performances in teaching situations (Bandura, 1997; Mulholland & Wallace, 2001).

Modelling of Tasks

The teachers and teacher assistants valued the modelling of skills, activities, and book reading before implementation. The modelling by the speech pathologist appeared to scaffold most the teachers' (seven out of eight) and teacher assistants' (eight out of nine) ability to implement the program further, beyond an understanding of just reading the scripted session plan. This sometimes was problematic when not all skills and techniques were modelled for the teacher and teacher assistant. However, this was not possible given the ratio of teachers and teaching assistants to speech pathologists. Six out of nine teaching assistants and four out of eight teachers thought it was difficult without being shown what to do first. An example of a comment included:

It would be nice to be shown, because well myself, I can read it – it doesn't matter how many times I read it, it won't click in, in here, but if I actually watch someone do it, I actually pick it up better that way (Teacher Assistant 6).

Despite scripted session plans and opportunities for discussion pre and post sessions, this comment highlights the importance of learning to be both theoretical in written form and experiential in the form of modelling and experience. People's efficacy is influenced in

different ways and in regards to the oral language and literacy program, it is important that modelling was provided for teachers and teacher assistants. The majority of teachers and teacher assistants wanted to be shown the task before having to implement the task with students.

Conversations

Conversations (called verbal persuasion in self-efficacy theory) occurred on a regular basis within the program and in a number of different contexts. For example, once a term an after school network meeting was held, in which teachers and the speech pathologists participated. The meetings allowed time to discuss and share pedagogy across school sites. While six out of eight teachers mentioned this opportunity as important for building their competence, all of the teacher assistants (nine out of nine) felt excluded from involvement in the network meeting. The teacher assistants felt they did not receive the same level of opportunity to discuss the implementation of the program. In the research on interdisciplinary teams, developing inclusive networks is an important characteristic (Brener et al., 2007). The teacher assistants may have developed negative beliefs about their own competence based on exclusion from the network meetings, given all had raised exclusion as an issue in the focus group.

All (nine out of nine) of the teacher assistants' verbal persuasion was influenced by conversations with the teacher, the speech pathologists, or amongst one another. All of these events were viewed as positive contributors towards self-efficacy in implementing the program. For example, some of the teachers (five out of eight) would talk highly about the teacher assistants being the experts in the delivery of the program, as they would often have to repeat sessions in different classrooms. These teachers would also ask the teacher assistants about the effectiveness of the different activities they implemented and would provide positive feedback to the teacher assistants.

Positive verbal feedback would also come from the speech pathologists to the teachers and teacher assistants. This was valued by all participants in the focus groups. This aligns with earlier findings by Giangreco, Edelman, and Broer (2001) about the importance of positive comments. The speech pathologists made a conscious effort to communicate everything about the program, including the network meetings that the teacher assistants did not attend. The speech pathologists were available to help with questions about the program. One teacher commented:

The speech pathologist emails us on any updates and comments. She always says 'what do you think, what do you need, what's working well?' nearly at the end of every session or during. Her support is fantastic (Teacher 3)

From this comment we can start to see the importance of the speech pathologist in the verbal persuasion of the teachers and teacher assistants within the schools. The speech pathologists' comments and ways of working appeared to greatly influence the competence and confidence of the teachers and teacher assistants. The speech pathologists were able to create an environment that was inclusive with regular communication and discussion between all professionals.

Communication has been identified in the literature as a key contributor for interdisciplinary teams working together (Anderson-Butcher et al., 2006). In this study, communication was seen as an important element of the program for the teachers and teacher assistants delivering the PrepSTART program. The regular communication from the speech pathologists appeared to support and sustain involvement in the PrepSTART program.

Emotions Felt with Implementation

Emotions experienced also appeared an important contributor to the delivery of the program and continued to influence the relationship between the teachers, teacher assistants, and speech pathologists. The teacher assistants (seven out of nine) and teachers (four out of eight) often felt nervous delivering the program, as they did not want to make mistakes. While they could see the potential and importance of the program, they also realised they needed to have adequate skills to deliver the program. These teachers and teacher assistants would sometimes require a level of emotional support from the speech pathologist.

Emotions were also shown about problems with the continuity of the program (eight out of nine teacher assistants, and six out of eight teachers). For example, when teachers or teacher assistants were away, others members involved in the program would sometimes feel nervous about replacement teachers and teacher assistants delivering the program incorrectly and doing harm to the children's learning. Emotions were also noted when the continuity of the program was sometimes disrupted because of changes in timetables or other events at the school. While the teachers and teacher assistants realised the importance of continuity in the program, it became frustrating when the continuity was challenged over the course of the year. This created negative beliefs about their success and questioned their overall goal of student improvement in oral language and literacy.

Another emotional influence was when handbook material about the program could not be taken home (seven out of nine teacher assistants and seven out of eight teachers). Sometimes the teacher assistants wanted to take home the handbook folders to learn and practise some of the techniques and skills for the implementation of the program. As one commented:

We're not supposed to take stuff home. I've been in trouble before for doing it so I won't do it. So you've got to learn on the job and on the run- like 10-minutes before you're about to go in there (Teacher Assistant 2).

The decision for material to stay at school was so it would not be lost, or if a teacher or teacher assistant was away, the replacement teacher or teacher assistant could read the material.

Positive emotion was created when the teacher (seven out of eight) and teacher assistants (nine out of nine) could see the student's learning change. Both groups discussed the positive feelings associated with seeing children understanding and improving with their language. One teacher commented:

The children will come back from the weekend and say "I'm ambling because my legs are tired" or use the word 'rescued' or say "Mrs. X, I'm ravenous – is it nearly lunch time?" (Teacher 4).

Positive emotion was also associated with reflection over the year regarding the delivery of the program. The reflection of personal growth and development influenced positive emotions of being part of something important and making a difference to children's learning:

We've seen the outcomes of the children now and now that the tunnel is showing us the light. We can see where the children have got to ...to me it's a lot- it is worth it (Teacher 5).

For this particular teacher, she was able to associate the positive outcomes of the children's learning with their own improved capability and confidence with the program.

Bandura (2006) noted the importance of emotional arousal in teacher self-efficacy. If teachers and teacher assistants have negative beliefs, they are less likely to engage with the PrepSTART program successfully. While the examples from the interviews initially showed the teachers and teacher assistants were hesitant because of lack of experience in delivering

the program, over time they developed positive emotional arousal to the PrepSTART program. The teachers and teacher assistants became aware of their own emotions regarding the children's improvements in language.

Conclusion

Overall, the PrepSTART program is dependent on the implementation by the teachers and teacher assistants which in turn is determined by self-efficacy. For future delivery of professional development programs, it is important that the sources of efficacy are acknowledged and supported. While researchers may develop and design evidence-based programs for classrooms to improve oral language and literacy outcomes of children, success is ultimately based on the beliefs of the teachers and teacher assistants who deliver the program. Likewise, success is dependent on the relationship of the interdisciplinary team - in this study it was the ability of the speech pathologists to support and mentor the teachers and teacher assistants to develop positive beliefs of competence and confidence. Snow et al. (2014, p.504) emphasised this importance where "in order to achieve further change in early-years language and literacy outcomes, then, speech pathologists need to engage with teacher education and professional learning". We suggest that speech pathologists in their engagement also need to think about ways to support positive self-efficacy.

Limitations

Although the findings of the study are important, the study also has a number of limitations. First, the number of participants in the study was small, which limits the ability to generalise these results. This has meant it was not possible to test if variation in teacher beliefs was because of age, gender, or prior experience. The selection of the participants was also based on availability of participants at each of the locations.

A second limitation relates to the trustworthiness of self-report data. Participants may have had inaccurate recall (Stough, 2006) and over-estimate their capabilities in terms of self-efficacy. Self-efficacy could not be verified through observation.

Another limitation is that teacher and teacher assistant beliefs were only examined once in this study in one focus group. Their beliefs may have changed since their initial participation. Longitudinal studies are needed in which educators' beliefs are monitored over time.

Conclusion

In conclusion, understanding how speech pathologists, teachers, and teacher assistants can work together will help to improve the delivery of PrepSTART, an oral language and early literacy programs in the classroom. Like Snow et al. (2014) who highlighted the importance of speech pathologists in supporting teachers, this study acknowledges the importance of speech pathologists in supporting teachers and teacher assistants in primary schools. Future mixed methods research in this area will not only help to demonstrate the effectiveness of programs, such as PrepSTART in enhancing the oral language and literacy performance of children, but also provide a better understanding of the facilitators and barriers to implementing these programs in the classroom.

References

- Allinder, R. M. (1994). The relationships between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*(2), 86-95. <https://doi.org/10.1177/088840649401700203>
- Anderson, E. M. (2013) Preparing the next generation of early childhood teachers: The emerging role of interprofessional education and collaboration in teacher education, *Journal of Early Childhood Teacher Education, 34*(1), 22-35. <https://doi.org/10.1080/10901027.2013.758535>
- Antoniazzi, D., Snow, P., & Dickson-Swift, V. (2010). Teacher identification of children at risk for oral language impairment in the first year of school. *International Journal of Speech- Language Pathology, 12*(3), 244–252. <https://doi.org/10.3109/17549500903104447>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Ben-Arieh, A. (2006). *Measuring and monitoring the well-being of young children around the world*. Paper commissioned for the EFA Global Monitoring Report 2007, Strong foundations: Early childhood care and education. Available at: <http://unesdoc.unesco.org/images/0014/001474/147444e.pdf>.
- Bluteau, P., & Jackson, A. (2009). *Inter-professional education: Making it happen*. New York, NY: Palgrave Macmillan.
- Bradshaw, J., Hoelscher, P., & Richardson, D. (2007). An index of child well-being in the European Union. *Social Indicators Research, 80*(1), 133-177. <https://doi.org/10.1007/s11205-006-9024-z>
- Brener, N, Wheeler, L., Wolfe, L., Vernon-Smiley, M. and Caldart-Olsen, L. (2007), 'Health Services: Results from the School Health Policies and Programs Study', *The Journal of School Health, 77*(8), 464-485. <https://doi.org/10.1111/j.1746-1561.2007.00230.x>
- Bronstein, L.R., & Abramson, J.S. (2003). Understanding socialization of teachers and social workers: Groundwork for collaboration in the schools. *Families in Society, 84*(3), 323-330. <https://doi.org/10.1606/1044-3894.110>
- Caprara, G. V., Barbaranelli, C., Borgogni, L., & Steca, P. (2003). Efficacy beliefs as determinants of teachers' job satisfaction. *Journal of Educational Psychology, 95*(4), 821-832. <https://doi.org/10.1037/0022-0663.95.4.821>
- Cavana, R. Y., Delahaye, B. L., & Sekaran, U. (2003). *Applied business research: Qualitative and quantitative methods*. Brisbane, Queensland: John Wiley and Sons.
- Clandinin, D. J. & Connelly, F. M. (2000). *Narrative inquiry*. San Francisco, CA: Jossey-Bass.
- Clark, T. D., Jones, M. C., and Armstrong, C. P. 2007. The dynamic structure of management support systems: Theory development, research focus, and direction, *MIS Quarterly, 31*(3), 579-615.
- Cohen, L., Manion, L., & Morrison, K. (2000). *Research methods in Education*. London and New York: RoutledgeFalmer. <https://doi.org/10.4324/9780203224342>
- Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching. *Journal of Experimental Education, 60*(4), 323-337. <https://doi.org/10.1080/00220973.1992.9943869>
- Dickinson, D. K. (2011). Teachers' language practices and academic outcomes of preschool children. *Science, 333*, 964–967. <https://doi.org/10.1126/science.1204526>
- Friend, M., & Cook, L. (2010). *Interactions: Collaboration skills for school professionals*. Boston, MA: Pearson.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology, 76*(4), 569-582. <https://doi.org/10.1037/0022-0663.76.4.569>

- Giangreco, M. F., Edelman, S. W., & Broer, S. M. (2001). Respect, appreciation, and acknowledgment of paraprofessionals who support students with disabilities. *Exceptional Children*, 67(4), 485-498. <https://doi.org/10.1177/001440290106700404>
- Jackson, S., Pretti-Frontczak, K., Harjusola-Webb, S., Grisham-Brown, J., & Romani, J. M. (2009). Response to intervention: Implications for early childhood professionals. *Language, Speech, and Hearing Services in Schools*, 40(4), 424. [https://doi.org/10.1044/0161-1461\(2009/08-0027\)](https://doi.org/10.1044/0161-1461(2009/08-0027))
- Kennedy, E., & Shiel, G. (2010). Raising literacy levels with collaborative on-site professional development in an urban disadvantaged school. *The Reading Teacher*, 63(5), 372-383. <https://doi.org/10.1598/RT.63.5.3>
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Beverley Hills, CA: Sage.
- Lennox, M., & Westerveld, M. F. (2014). Enhancing emergent literacy performance of Australian students from disadvantaged backgrounds in their first year of school: A preliminary investigation *Journal of Clinical Practice in Speech-Language Pathology*, 16(2), 58-65.
- Lennox, M., Westerveld, M. F., & Trembath, D. (2016). Evaluating the effectiveness of PrepSTART, an interdisciplinary program aimed at promoting oral language and emergent literacy skills in disadvantaged prep students. *International Journal of Speech-Language Pathology, Early Online*: 1 – 11. <https://doi.org/10.1080/17549507.2016.1229030>
- McIntosh, B., Crosbie, S., Holm, A., Dodd, B., & Thomas, S. (2007). Enhancing the phonological awareness and language skills of socially disadvantaged preschoolers: An interdisciplinary programme. *Child Language Teaching and Therapy*, 23(3), 267-286. <https://doi.org/10.1177/0265659007080678>
- Moore, W., & Esselman, M. (1992). *Teacher efficacy, power, school climate and achievement: A desegregating district's experience*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.
- Moore, W., & Hammond, L. (2011). Using education assistants to help pave the road to literacy: Supporting oral language, letter-sound knowledge and phonemic awareness in the pre-primary year. *Australian Journal of Learning Difficulties*, 16(2), 85-26. <https://doi.org/10.1080/19404151003763029>
- Mulholland, J. & Wallace, J. (2001). *Teacher induction and primary science teaching: Enhancing self-efficacy*. *Teaching and Teacher Education*, 17(2), 243-261. [https://doi.org/10.1016/S0742-051X\(00\)00054-8](https://doi.org/10.1016/S0742-051X(00)00054-8)
- Neuman, S. B., & Wright, T. S. (2010). Promoting language and literacy development for early childhood educators: A mixed-methods study of coursework and coaching. *Elementary School Journal*, 111(1), 63-86. <https://doi.org/10.1086/653470>
- O'Connor, M., Arnott, W., McIntosh, B., & Dodd, B. (2009). Phonological awareness and language intervention in preschoolers from low socio-economic backgrounds: A longitudinal investigation. *British Journal of Developmental Psychology*, 27(4), 767-782. <https://doi.org/10.1348/026151008X372492>
- Ross, J.A. (1992). Teacher efficacy and the effects of coaching on student achievement. *Canadian Journal of Education*, 17(1), 51-65. <https://doi.org/10.2307/1495395>
- Salm, T., Greenberg, H., Pitznel, M., Cripps, D. (2010). Inter-professional education internships in schools: Jump starting change. *Journal of Inter-professional Care*, 24, 251-263. <https://doi.org/10.3109/13561820903051469>
- Samaras, A., & Freese, A. (2006). *Self-study of teaching practices: A primer*. New York: Peter Lang.

- Serry, T. (2013). Capacity to support young low-progress readers at school: Experiences of speech-language pathologists. *International Journal of Speech-Language Pathology*, 15(6), 623-633. <https://doi.org/10.3109/17549507.2012.754944>
- Snow, P. C., Eadie, P. A., Connell, J., Dalheim, B., McCusker, H. J., & Munro, J. K. (2014). Oral language supports early literacy: A pilot cluster randomized trial in disadvantaged schools. *International Journal of Speech-Language Pathology*, 16(5), 495-506. <https://doi.org/10.3109/17549507.2013.845691>
- Stone, S., D'Andrade, A. & Austin, M. (2007). Educational Services for Children in Foster Care: Common and Contrasting Perspectives of Child Welfare and Education Stakeholders. *Journal of Public Child Welfare*, 1(2), 53-70. https://doi.org/10.1300/J479v01n02_04
- Stough, L. (2006). The place of classroom management in the standards in teacher education. In C. M. Evertson, & C. S. Weinstein (Eds.), *Handbook of classroom management. Research, practice, and contemporary issues* (pp. 909-924). Mahwah, NJ: Lawrence Erlbaum.
- Tourse, R., Mooney, J. Kline, P., Davoren, J. (2005). A collaborative model of clinical preparation: A move toward inter-professional field experience. *Journal of Social Work Education*, 41(3), 457-477. <https://doi.org/10.5175/JSWE.2005.200200272>
- Tschannen-Moran, M & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17(7), 783-805. [https://doi.org/10.1016/S0742-051X\(01\)00036-1](https://doi.org/10.1016/S0742-051X(01)00036-1)
- Tschannen-Moran, M., Woolfolk Hoy, A., & Hoy, W. K. (1998). Teacher efficacy: Its meaning and measure. *Review of Educational Research*, 68(2), 202-248. <https://doi.org/10.3102/00346543068002202>
- Waitoller, F.R. & Kozleski, E.B. (2013). Working in boundary practices: Identity development and learning in partnerships for inclusive education. *Teaching and Teacher Education* 31(3), 35-45. <https://doi.org/10.1016/j.tate.2012.11.006>
- Wallen, N., & Fraenkel, J. (2001). *Educational research: A guide to the process* (2nd ed.). Mahwah, NJ: Erlbaum.
- Wilcox, M. J., Gray, S. I., Guimond, A. B., & Lafferty, A. E. (2011). Efficacy of the TELL language and literacy curriculum for preschoolers with developmental speech and/or language impairment. *Early Childhood Research Quarterly*, 26(3), 278-294. <https://doi.org/10.1016/j.ecresq.2010.12.003>
- Williams, J. (2014). Teacher educator professional learning in the third Space: Implications for identity and practice. *Journal of Teacher Education*, 65(4), 315-326. <https://doi.org/10.1177/0022487114533128>

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