Teacher referrals to speech pathologists for speech, language and communication needs in the first year of school

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A thesis submitted to fulfil the requirements

for the degree of

Master of Research

Department of Educational Studies

Faculty of Human Sciences

Macquarie University

Sydney, Australia

December, 2017

Certification by the Candidate

I certify that the work in this thesis entitled 'Teacher referrals to speech pathologists for speech, language and communication needs in the first year of school' has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree to any other university or institution other than Macquarie University.

I also certify that the thesis is an original piece of research and it has been written by me. Any help and assistance that I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

The research presented in this thesis was approved by Macquarie University Ethics Committee (Human Research), reference number: 5201700462 on 30 May, 2017.

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27th November, 2017

Acknowledgements

Firstly, I would like to express my sincere gratitude to my two supervisors, Dr Emilia Djonov and Dr Mridula Sharma. Emilia, I am so thankful to you for sharing your extensive knowledge, insight and advice with me. Thank you for your enthusiasm for my project, your hard work and for encouraging me to persevere throughout. Mridula, thank you for making time for me and this project in your busy schedule. Your excitement and creativity have shaped this project into what it is today. I appreciate both of you for your understanding and patience with me throughout the year. It has been very exciting for me to work collaboratively with the two of you in bringing the perspectives of education and linguistics together for this project.

Thank you to my amazing family and friends without whom this project would not exist. I appreciate your thoughtfulness, selflessness and patience with me during this time. I am forever grateful to my incredibly supportive husband, James, and my wonderful Mum, Sharron. Thank you both for giving me opportunities to work (distraction free!), and for your encouraging words in difficult times.

Thanks also to Dr Bradley Smith for professional editing of the thesis. I would also like to thank the members of the Higher Degree Research team who have supported my progress.

Finally, I would like to thank all of the educators and speech pathologists who participated in my study.

List of Abbreviations

AEDC	Australian Early Development Census
ACARA	Australian Curriculum Assessment and Reporting Authority
ICSEA	Index of Community Socio-Economic Advantage
NESA	NSW Education Standards Authority
SPA	Speech Pathology Australia
SLPI	Speech-Language Pathologist Interviewee
SLP	Speech Language Pathologist
SLCN	Speech, Language and Communication Needs
TI	Teacher Interviewee

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Abstract

Children with speech, language and communication needs (SLCN) experience difficulties in many areas of their development and learning. Teachers are responsible for referring these children to speech-language pathologists (SLPs). Yet, teachers lack adequate knowledge, training or tools to accurately identify children with SLCN. Consequently, many children do not receive the speech therapy they need. A better understanding of teachers' and SLPs' views on the referral process and on suitable SLCN indicators might inform and enhance collaboration between the two professions, and ultimately help them provide better support for children with SLCN.

This study examined the referral process for children with SLCN in the first year of school in New South Wales, Australia, and the importance that teachers and SLPs assign to indicators of SLCN. Two surveys were completed by 47 teachers and 56 SLPs. Semi-structured interviews were conducted with 13 of these survey respondents, 6 teachers and 7 SLPs. The analysis of the data revealed: some confusion about the referral process among SLPs; teachers' hesitation in referring children with SLCN to SLPs and uncertainty about the scope of SLP practice; suggestions for improving children's level and ease of access to SLP services such as having more SLPs at schools, making SLP services more affordable, more professional development for teachers regarding SLCN; increasing parent involvement; and divergence in the importance that teachers and SLPs assign to indicators of SLCN in children.

1. Introduction

This project aims to contribute to a better understanding of the referral of children in the first year of school by teachers to speech-language pathologists (SLPs) and the indicators used by teachers and SLPs to identify speech, language and communication needs (SLCN), as these are the catalyst for the referral process and ultimately the means through which children gain access to SLP services. This project addresses two pertinent questions:

1. In what ways can the referral of students by teachers to SLPs be improved, as suggested by teachers and SLPs?
2. What importance do teachers versus SLPs assign to indicators used for identifying children with SLCN in the first year of school?

It is hoped that addressing these questions will support researchers, teachers and SLPs in gaining a greater understanding of the indicators to use in identifying SLCN. It is also hoped that this research will contribute to positive change in the referral of children with SLCN by teachers to SLPs, so that greater support is given to these children.

1.1 The prevalence of speech, language and communication needs (SLCN) in Australian children.

The recent Australian Early Development Census (2015) collected data on 302,003 children in Australia (representing 96.7 per cent of children in their first year of full-time school), revealed that 22% of Australian children were considered vulnerable across one or more domains (physical, social, emotional, language and communication), with at least 9% vulnerable in their language or communication development (more than 27,000 students).

Other studies have suggested even higher rates, with The Centre of Research Excellence in Child Language, estimating that as many as one in five (20%) of students in Victoria are experiencing language difficulties, levels as high as for rates of childhood

obesity (Senate Community Affairs References Committee, 2014). However, the lack of emphasis on supporting children with SLCN does not reflect this epidemic status.

The term SLCN is an umbrella term which describes difficulties in communicating, and includes speech problems such as stuttering, language problems such as following instructions, and communication problems such as difficulty interacting with others (Royal College of Speech and Language Therapists, 2017). While the prevalence of SLCN as a whole has been shown to be high (McLeod & McKinnon, 2007), the prevalence of specific problems can be quite low: for example, childhood apraxia of speech has been estimated to affect 0.2% of children (Shriberg, Aram & Kwiatkowski, 1997). The range of SLCN, combined with limited understanding about how the factors contributing to a SLCN interact, makes the identification of SLCN difficult for professionals (Dockrell, George, Lindsay & Roux, 1997).

1.2 The impact of SLCN on children.

Speech and language are intimately related to all aspects of educational and social development (Law, Boyle, Harris, Harkness, & Nye, 1998). Therefore, SLCN can have an extensive negative impact on children's development and learning. Although it is important to remember that SLCN is an umbrella term, thus not all children with SLCN are at increased risk of literacy difficulties. In a systematic review of the literature, McCormack, McLeod, McAllister and Harrison (2009) examined childhood speech impairments and their effects. They found that childhood speech impairments may be associated with difficulties in: learning to read and write, attention, calculating, communicating, mobility, relating to persons in authority, informal relationships with friends, parent-child relationships, sibling relationships, school education, and later employment.

It is well-documented that children with SLCN experience greater difficulty with literacy, including learning to read and write, than their peers (Bishop & Adams, 1990; Lindsay & Dockrell, 2004; Conti-Ramsden, Durkin, Simkin, & Knox, 2009). In the school context, a SLCN can extend to negatively impacting children's: phonological awareness; ability to discriminate speech sounds; understanding of story structure; vocabulary; verbal reasoning; oral language skills; decoding and comprehension (Speech Pathology Australia (SPA, 2017a). Given that communication is the means by which the vast majority of these skills are taught and supported in the school environment, children with SLCN are at a distinct disadvantage (SPA, 2017a).

As well as academic and literacy difficulties, evidence suggests that students with SLCN also suffer socially. A national study of 4329 Australian children found that children who had communication difficulties in their preschool years reported higher levels of bullying, poorer peer relationships, and less enjoyment of school than their peers (McCormack et al., 2011). Lindsay, Dockrell and Strand (2007) also found that children with SLCN had high levels of behavioural, emotional and social difficulties. Similarly, Lindsay, Dockrell, Letchford and Mackie (2002) found that children with SLCN had lower social acceptance ratings than their peers.

The impacts of SLCN are, unfortunately, not limited to childhood. As SLCN have their basis in difficulties communicating, these problems have been shown to negatively affect occupational choices (Felsenfeld, Broen & McGue, 1994) and employment (Ruben, 2000) of those who experience SLCN. Byles (2005) explains that this is due to the increasing importance placed on communication in employment, due to working in the information age. As many SLCN originate in childhood, it is vital for these issues to be addressed as early as possible, in order to lessen the negative long-term impacts they may have on children's lives.

1.3 The importance of the first year of school.

It is particularly important for SLCN to be identified in the first year of school, as this is the first stage of children's formal education and the first time their communication skills may be assessed. The first year of school in NSW is compulsory and full time for all children who are four turning five on or before 31 July that year. The English Syllabus for kindergartens in NSW has syllabus outcomes specifically for communication (NSW Education Standards Authority, 2015). There is also research showing that children with SLCN are at higher risk of literacy difficulties if their SLCN persist past the age of 5 years and 6 months (Bishop and Adams, 1990; Nathan, Stackhouse, Goulandris, & Snowling., 2004). The first year of school is also the first time a child experiences formal instruction in other subjects including science and mathematics. SLCN have been shown to negatively affect a child's progress in these areas, due to the vocabulary, sequencing and phonological processing these subjects require (Hecht, Torgesen, Wagner & Rashotte, 2001).

The SLCN of kindergarten children have been shown to have low detection rates prior to school, for example, fewer than 30% of children with SLCN had been identified before starting school, according to Tomblin, Records, Buckwalter, Zhang, Smith and O'Brien (1997). Identifying children with SLCN in kindergarten (as opposed to later school years) has also been described positively as a means of increasing collaboration with parents, as they are made aware of their child's needs at an earlier stage (Glover, McCormack & Smith-Tamaray, 2015).

1.4 Services in NSW schools for children with SLCN.

In Australia, the resources available to children with SLCN, and the means through which they can access them, varies from one state or territory to another according to the interpretation of federal legislation (McLeod, Press & Phelan, 2010).

This is partly because in Australia, education is predominantly state funded and administered.

1.4.1 Disability funding. The Australian Government has recently committed additional resources to support students through their 'More Support for Students with Disabilities' initiative, which aims to meet the additional learning needs (including language and communication) of students across the country. In NSW public schools, this has been put into effect by the Department of Education and Communities' 'Every Student, Every School' program (NSW Department of Education and Communities, 2012), and Catholic and Independent schools can benefit from the initiative through individual agreements with the government to be included in the program. The program has been implemented through the Learning and Support framework currently available to teachers in NSW to assist them when referring students who need extra assistance (NSW Department of Education and Communities, 2016b).

In NSW, children with SLCN are not specifically allocated funding unless they meet the department's disability criteria, in which they must:

- receive a score in the second percentile or lower on a standardised language test;
- have an assessed receptive or expressive language disorder (documented by a current

  SLP report);
- provide "documented evidence of the development and delivery of an intensive learning program assisted by a support teacher, or relevant specialist in the prior-toschool setting in the case of a student entering kindergarten." (NSW Department of Education and Communities, 2003, p.1)

It appears that only a small percentage of students would be able to meet these criteria. If the criteria are met, the NSW Department of Education (2016b) states that NSW public

schools are provided with a learning and support resources package to help any students experiencing difficulties, including language problems, in learning in a mainstream classroom. This package includes a specialist teacher as well as an allocation of funding which can be used at the principal's discretion. The amount of funding is calculated according to the school's need through data from the National Assessment Program – Literacy and Numeracy (NAPLAN). However, the means through which children in NSW receive this funding or speech therapy is unclear (Glover et al., 2015). In some situations, these children may be referred to other teams or specialists for further assistance.

1.4.2 The referral process. There appear to be different means through which children with SLCN that do not meet the criteria for disability are supported in NSW. The method of interest for the present thesis is the referral of students to an SLP, usually in a private practice. Although uncommon, the referral may be to an 'on-site' SLP (parent funded) who provides therapy to individual students.

Information regarding the referral process in NSW schools is sparse, in both the literature and publicly available information. For example, of the 113 results for the search term 'referral' on the NSW Department of Education and Communities' website, none discussed the referral of students to a learning support team or SLP for SLCN, and only one discussed a referral to the learning support team. As well as this formal referral, another option used to address SLCN is for teachers to inform parents of their children's perceived SLCN and recommend that the child see a SLP for assessment or treatment.

Financial support is currently available through a Medicare rebate for seeing SLPs, through the Chronic Disease Management Plan. Eligibility for this is based on a general practitioner confirming the need and the SLCN being a chronic condition, affecting the patient for more than 6 months (Senate Community Affairs References Committee, 2014).

The Chronic Disease Management Plan currently allows a family five speech therapy sessions, with a rebate of $52.95 for each twenty-minute SLP session. Five sessions, however, are usually insufficient to adequately address language and communication issues (Law, Garrett & Nye, 2004). Importantly, for all three options within the school context, the classroom teacher is almost always the first to encounter a student experiencing difficulties with language and communication development.

1.5 The need for collaboration between teachers and SLPs

Many children start school with unsupported SLCN (Norbury, Gooch, Baird, Charman, Simonoff, & Pickles, 2016), which need to be identified and supported during the school years. Pring, Flood, Dodd and Joffe (2012) argue that, for children's SLCN to be appropriately addressed during the school years, the engagement of both teachers and SLPs is required. Drawing on a range of different studies, Ehren (2000) argues that teachers and SLPs have a shared responsibility for student success at school. However, this poses a challenge as, in order for teachers and SLPs to collaborate in assisting children with SLCN, the fields of education and health must come together (Snow, 2016; Lindsay & Dockrell, 2004).

The responsibility for identifying children with SLCN is only one of the varied duties teachers have in their difficult and limitless role (Connell, 2009). Their work involves the production of information, knowledge, communication and affect (Selwyn, Nemorin & Johnson, 2017). Primary school teachers in NSW teach English, Maths, Science, Geography, History, Creative Arts, and PDHE. They are expected to teach to each of these syllabi in a way that is accessible to the range of individual student needs in their classroom. Beyond this, they are also responsible for assessment and reporting, behaviour management, parent communication, school events, excursions, school committees, and learning projects. In addition, within a school day a teacher may need to administer first aid, report a critical

incident, keep children safe in a lockdown, and assist a child in finding friends in the playground. It is not surprising then, that research conducted by Bennett and Hazel (2016) found that two-thirds of teachers (n=453) cited too much work as the biggest challenge in the profession.

An additional difficulty is that teachers are held responsible for identifying children's SLCN, without having the level of training this requires. SLCN vary considerably, from articulation difficulties such as sound substitution to a limited ability to use or understand language (Dockrell & Lindsay, 2001). With no model for identifying different types of SLCN and their severity (Conti-Ramsden et al., 1997), teachers are faced with a difficult task, as differentiating normal from atypical language development is very challenging *(*Dockrell et al., 1997).

In contrast to teachers, SLPs are trained to work specifically with adults and children who have difficulty communicating (SPA, 2017c), and know what is developmentally appropriate in children's speech, language and communication skills. However, SLPs do not have the opportunity that teachers do to observe the children they work with each day, in both everyday interactions as well as more formal classroom situations.

To best mobilise their respective advantages while overcoming the challenges specific to their profession, teachers and SLPs need to collaborate in supporting children with SLCN. Effective collaboration requires a better understanding of the indicators used to identify SLCN, and agreement on the referral process and how they believe this could be improved to more adequately support children with SLCN.

1.6 Organisation of this thesis

This thesis is divided into six chapters. Chapter 1 has introduced the study, and described the prevalence of SLCN and its impact on children, and how they are supported in

NSW by teachers through the referral to SLPs. Chapter 2 presents a critical review of previous research on teacher and SLP identification of SLCN. Chapter 3 presents the methods used to investigate the research questions of the present study. Chapter 4 reports on the findings of the surveys and interviews. Chapter 5 interprets these results with reference to relevant theory and previous research. Chapter 6 revisits and reflects on these findings in relation to the research questions guiding the study, reviews the strengths and contributions of the study, and offers suggestions for future research

2. Literature Review

2.1 Chapter Introduction

As argued in Chapter 1, speech, language and communication difficulties present significant challenges for children's learning, and social and emotional wellbeing. It is, therefore, important that teachers are able to identify children experiencing such difficulties in the first year of school, and refer them and collaborate with SLPs so that these children's SLCN can be addressed effectively.

This chapter will review existing studies on the referral of school children to SLPs by teachers, teachers' ability to effectively identify SLCN, and the knowledge and professional development they require in order to collaborate with SLPs in ways that enable children to overcome speech, language and communication difficulties that may stand in the way of their future academic and professional achievements.

2.2 The referral process: Barriers to access to SLP services

This section reviews research that has shown the barriers for students with SLCN in accessing services from SLPs. These include Australian policies, shortages of SLPs (causing large caseloads), limited access to SLPs, and high cost of service.

2.2.1 Policy. Australian policies are lacking in their ability to support children with SLCN (Senate Community Affairs References Committee, 2014). McLeod, Press and Phelan (2010) searched for references to 'communication impairment' in relevant Australian health, education and disability policies. Their study revealed that national and state policies promote very stringent criteria for accessing support for children with SLCN, through disability funding (see Chapter 1, Section 1.3.1), which limits the services available for these children. They also found that students with communication impairment in NSW, for example, are not eligible to receive individual funding, according to current policy documents.

2.2.2 Caseloads. With staffing shortages in the field, SLPs have been shown to have large caseloads in order to accommodate as many children as possible (Kaegi, Svitich, Chambers, Bakker, & Schneider, 2002). Law et al. (2000) argue that, in the UK, insufficient funding for SLPs in schools is a key reason why SLCN are not adequately addressed in the school population. They estimate that, if current SLPs were to adequately service school children's SLCN, they would have a caseload of 315 children, rather than the recommended load of 40 children (Law et al, 2000). Similar findings were reported by McLaughlin, Lincoln and Adamson (2008), who conducted telephone interviews with 60 members of Speech Pathology Australia. They investigated SLP perceptions of job stress, job satisfaction, and their opinions about the reasons why SLPs might leave the profession. Many SLPs reported unmanageable caseloads as a negative aspect to working as an SLP. The enormity of this concern was also highlighted in Brandel and Loeb's (2011) surveys of almost 2000 schoolbased SLPs in the USA. The online survey examined the factors that impact SLPs' decisions about their service delivery method and program for students with SLCN, and revealed that the size of SLPs' caseloads impacted these decisions almost as much as did student characteristics, such as the severity of their condition. This could lead to children with severe SLCN being allocated the same amount of treatment as children with milder SLCN (e.g. one half-hour session per week), or to children with milder SLCN receiving no treatment at all.

2.2.3 Access. Access to SLP services has also been reported as being limited. In the Australian context, McLeod et al. (2010) discuss the 2008 NSW Department of Health report, which found that access to specialist services, including speech pathology, accounted for 23% of complaints. Ruggero, McCabe, Ballard and Munro (2012) compared 154 parent opinions of SLP services around Australia, with evidence regarding recommended SLP service delivery methods. They found that parents had concerns with SLPs for the following reasons:

lack of services, long waiting times (more than six months), cut-off ages for eligibility, discharge processes, and an inability to afford private services. Similarly, O'Callaghan, McAllister and Wilson (2005) investigated perceived barriers to paediatric SLP services in rural and remote NSW, through a questionnaire completed by 329 parents of children with SLCN in isolated areas. The barriers respondents cited included: limited availability of SLPs, long travel distances to access SLPs, poor awareness of SLP services, and long waiting lists (delaying treatment).

2.2.4 Cost. Another significant barrier is the cost of SLP services, as families find the rates charged by many private practices (e.g. $170 per hour) to be expensive (Talking Matters, 2016). Acknowledging cost as a barrier, the Senate Community Affairs References Committee's (2014) inquiry into the prevalence of different types of speech, language and communication disorders and SLP services in Australia, recommended increasing funding for publicly available SLP services.

2.3 Teacher identification of SLCN

Evidence suggests that teachers do not identify all children presenting with SLCN in their classes. Letts and Hall (2003) used a questionnaire to investigate 829 early-years professionals (including health visitors, playgroup staff and others, of which 35.4% were teachers), in terms of training, confidence and accuracy in identifying SLCN. Participants were asked to read three case-studies of children, two describing a child with SLCN, and decide whether each case warranted referral to a SLP. Over 80% of the participants correctly determined the need for referral in case study 3, which described a child with receptive and expressive language problems, and no referral for case study 2 (a child with normal language development). However, only 33.2% considered case study 1 (a 2.5-year-old only using small number of single word utterances) as warranting referral, and only 25% of respondents

correctly referred case studies 1 and 3 and not case study 2. This suggests that teachers are able to identify some SLCN but not others, and not all.

A number of studies have examined whether teachers and SLPs align in their identification of SLCN in children. The results in this area of research are mixed, with some studies suggesting that teachers are able to identify children with SLCNs (e.g. James & Cooper, 1966; Davis and Harris, 1992; Gerber and Semmel, 1984), while others highlight teachers' inaccuracy in identifying more specific SLCNs in children, when compared with formal tests or with assessments conducted by SLPs (e.g. Diehl & Stinnett, 1959; Botting, Conti-Ramsden & Crutchley, 1997; Wertz and Mead, 1975; Justice, Invernizzi & Meier, 2002, Jessup, Ward, Cahill, & Keating, 2008).

The mixed results in this area may be due to gaps in teachers' knowledge about SLCN. The research looking at the identification of children with SLCN by teachers and their subsequent referral (or lack thereof) to a SLP is limited. Law et al (2001) highlights this as an area for future research in order to establish best practice. The following studies compared teacher and SLPs in their identification or severity ratings of children with SLCN.

2.3.1 Teachers' ability to identify the presence of SLCN. An early study by Diehl and Stinnett (1959) asked teachers to complete a questionnaire about the students in their classes. The students were also assessed by a SLP. Diehl and Stinnett (1959) found that teachers only identified 57.3% of students diagnosed by the SLP as having impaired speech, highlighting (even very early on in this area of research) the lack of agreement between the two professions. The researchers did not investigate why the teachers did not identify all children with SLCN; however, this may be due to the limited experience of working with SLPs at the time. The lack of concurrence between the two professions may also stem from an imbalance in teacher training and preparation for this aspect of classroom practice.

A foundational study by James and Cooper (1966), by contrast, showed better alignment between teachers' and SLPs' identification of children with SLCN. In this study, 30 third-grade teachers read statements, each of which described a range of speech and voice problems in children, and then identified any children in their class who they suspected had SLCN. All children in these classes were then given a speech screening test, and if identified as having a speech problem, were seen for detailed speech examination to rate the severity of their difficulty by an experienced SLP. James and Cooper found that teachers identified 4/5 children whose speech problems were severe enough to warrant therapy. It may be that teachers are better able to identify SLCN when they are presented with examples of these needs while deciding on the referral of students.

More recent studies however show that discrepancies between teachers and SLPs persist. For instance, Jessup et al. (2008) asked teachers in Tasmania to screen their classes at two different times in their first year of school using the Kindergarten Development Check (KDC). The KDC is the mandatory tool used in Tasmanian public schools to assist in the early identification of students not achieving expected developmental outcomes in a range of areas including literacy, numeracy, speech and social interactions. These students were then assessed by a SLP to determine the presence of speech or language impairment (n=286). They found that, although initial teacher identification of students with SLCN was quite high (86.4% identification by teachers for speech and 71% for language impairment), follow up testing (in the subsequent year) showed that 50% of students with speech impairment, and 85% of students with language impairment, were still not identified by teachers.

2.3.2 Teachers' ability to identify the type and severity of SLCN. A small number of studies suggest that teachers' accuracy in identifying SLCN in children may vary according to the severity and type of speech or language problems (Letts & Hall, 2003; Davis & Harris, 1992; Botting, Conti-Ramsden & Crutchley, 1997).

Voice disorders appear to be a particular SLCN that teachers are able to identify. Davis and Harris (1992) focused on voice disorders, and asked 45 primary schools and 64 education students to listen to 30 samples of children's voices each, and to decide whether they would refer the child to a SLP. The researchers concluded that teachers were able to consistently identify children with voice disorders. The education students' results were identical in categorising normal voices correctly, but slightly lower compared to teachers in the identification of disordered voices (76% for students vs. 82% for teachers). Voice disorders may be easier for teachers to identify due to the amount of conversation that occurs in the school context, offering teachers daily comparisons of children's voices on which to base their judgements.

Differences between the teachers' and SLPs' ranking of the severity of more specific speech disorders were evident in Wertz and Mead's (1975) study. In their study, 96 teachers of kindergarten, year 1, 2 or 3 classes, and 24 SLPs were asked to rank the severity of recorded examples of four types of speech disorder (voice, cleft palate, articulation, and stuttering). Both teachers and SLPs rated stuttering as a more severe speech disorder than voice, cleft palate or articulation, demonstrating that teachers can identify more severe SLCN, as their ratings for stuttering aligned with those of the SLPs. The teachers in this study moderately agreed with SLPs regarding the severity of the other speech disorders; while agreement among the teachers was stronger than agreement among the SLPs. This finding suggests that, if SLPs have difficulty agreeing on the severity of speech problems in children, then it is unrealistic to expect teachers, who are not trained in speech pathology, to consistently identify and accurately gauge the severity of SLCN. Alongside its year of publication, another limitation of this 1975 study is that, while the grade a teacher taught was carefully considered, the number of years teachers had been teaching that grade, or the fact

that teachers can change grades each year were not, and these factors may have influenced teachers' rating of the severity of speech problems.

Differences between teachers' and SLPs' knowledge of particular language difficulties were shown by Botting, Conti-Ramsden and Crutchley (1997). A total of 242 children withdrawn for language units in mainstream schools were assessed using six formal language assessments. In addition, teachers and SLPs were asked to describe each child's difficulties in terms of four areas of language difficulty: articulation, phonology, syntax/morphology, and semantic/pragmatic impairment. Botting et al.'s results show that, for articulation, phonology and syntax/morphology difficulties, both teachers' and SLPs' assessments reflected results from standardised tests (66% agreement). However, for semantic/pragmatic difficulties, strong agreement was not found between teacher opinions and any of the standardised tests. This may be a reflection of teachers' limited understanding of this type of language problem.

2.3.3 Assessment tools for identifying SLCN. Assessment tools, such as screeners, checklists and formal assessments have been proposed as a solution to the variance in teachers' knowledge and identification of children's SLCN (Jessup et al., 2008). In a survey of 59 experienced education students, completing a Master's programme in special and inclusive education in England, for example, the respondents not only reported difficulties in identifying children with SLCN and differentiating children with SLCN from those who spoke English as an additional language but specifically expressed a need for tools for identifying SLCN (Dockrell & Howell, 2015).

Screeners refer to assessments which quickly separate people with SLCN (or at risk), from those without (Goulart & Chiari, 2007). The accuracy of the identification of children with SLCN through assessment tools such as screeners shows mixed results, however, when

comparisons are made between teacher and SLP use. For example, Jessup et al (2008) considered several screening tools. The Kindergarten teachers in this study used the Kindergarten Development Check (KDC) at two different times in the year. Their students were then assessed by SLPs to determine the presence of speech or language impairment using a battery of assessments that included the Daz Roberts Test of Articulation and the four core language subtests of the Clinical Evaluation of Language Fundamentals-Fourth Edition Australian Standardised Edition (CELF-4 Australian). The authors concluded that the KDC appears to be ineffective in supporting kindergarten teachers in identifying students with ongoing SLCN, as half of all students who SLPs found to be experiencing speech impairments had not been identified as such by the kindergarten teachers. This study, however, has two limitations: first was the delay (8-12 months) between the screening by teachers and that by speech pathologists, with research showing that some speech problems naturally resolve over a period of 6-12 months (Bishop & Edmundson, 1987). The second limitation was the marked difference between the two environments in which the assessments were administered: the SLPs were unknown to the students and assessed them one-on-one for an hour in a quiet space, whereas the teachers assessed students naturalistically, in the classroom environment, where there were many more distractions. Both the false positives and false negatives could be a result of the different environments in which teachers and SLPs conducted their observations of children.

Assessment tools administered by SLPs alone, and not teachers have also been examined with varying results. Illerbrun, Haines and Greenough (1985) sought to determine the validity and effectiveness of five kindergarten language screening tests. A SLP and two language disability specialists administered the tests in random order to 136 Kindergarten students. Three months later the same children received a diagnostic language battery as the criterion measure. The results showed that the best classification predictor was the Bankson

Language Screening Test (BLST) which correctly classified 94% of the children and only misclassified 6%. The Clinical Evaluation of Language Functions (CELF) and LIST-K both correctly classified 92% of the children and misclassified 8%. The researchers concluded that identification of SLCN through the LIST-K is an efficient and valid approach. A major limitation of this study however was the potential bias of the lead researcher who developed the LIST-K assessment.

A key consideration with the use of any assessment tool for identifying SLCN in the school context is their cost in terms of finance, personnel and time (Justice, Invernizzi & Meier, 2002). Based on a review of studies in language and communication development in the first years of school, Justice et al. (2002) argue for early literacy screening when children enter kindergarten, as a means for identifying children who may require a more detailed assessment. However, the implementation of widespread screening procedures may not be cost effective, time efficient or practical (Justice et al, 2002). A literature review by Law, Boyle, Harris, Harkness and Nye (2000) revealed that although there are some adequate screening assessments, there is not enough evidence to justify the introduction of universal screening.

Even teacher checklists, which are a form of screener which take minimal time and human resources to administer, have been found to be ineffective in assisting teachers in identifying students with SLCN. This is evident in research by Antoniazzi, Snow and Dickson-Swift (2009), who compared teacher completion of the Children's Communication Checklist (second edition) with results of screening using the Clinical Examination of Language Fundamentals Screening Test (fourth edition). Although this study looked at oral language skills alone and had a small sample size of only 15 teachers, they found that

teachers' ratings on the Children's Communication Checklist (second edition) showed poor identification of students who needed further support in their oral language development.

As the research has demonstrated mixed results regarding the use of screeners in the identification of children with SLCN, this is recommended as an area for future research. A practical difficulty in investigating this area in the current study is that many of the screeners assessed in previous research are not used in the majority of NSW schools. Instead, NSW public schools use the Best Start Early Literacy Assessment tool which assesses Kindergarten students' literacy skills and knowledge at the beginning of the school year (NSW Department of Education and Communities, 2017). At this stage no research has analysed the Best Start Early Literacy Assessment tool in regards to its ability to identify SLCN. In light of this and the research regarding screeners, the current study will seek to identify the indicators, rather than screeners or other formal assessment tools, commonly used by SLPs and teachers in NSW to identify children with SLCN in the first year of school.

2.4 Teacher knowledge and professional development requirements

Research suggests that teachers have a limited understanding of the scope of SLP work, and SLCN in children (Dockrell & Lindsay, 2001), making it more difficult for them to accurately refer them to a SLP (Ehren & Ehren, 2001; Ukrainetz & Fresquez, 2003, Hall & Elliman, 2003). Professional development through both pre-service and in-service training is a suggested means through which teacher's knowledge of these two areas can be improved (Sadler; 2005; Mroz, 2006; Law et al., 2001; Moats, 1994, 2009).

2.4.1 Awareness of the scope of speech and language pathology services.

The accuracy of teacher identification of students with SLCN, and the subsequent referral of these students to SLPs, have been argued about in the literature for over 60 years. In reviewing the literature in this area, it is important to remember that changes have occurred in the field of speech pathology during this time, and hence some of the older references are

limited in their consistency with today's practices, terminology and theory. For example, in 1975 the professional title, 'speech therapist', was changed to 'speech pathologist' (Speech Pathology Australia, 2009), due to new understandings of the components of the work of a therapist (Crystal &Varley, 2013). In addition, as the first university degrees in speech pathology only commenced in Australia in 1962 (Speech Pathology Australia, 2009), it is likely that early SLPs' methods differed significantly from those today, and therefore that the reasons for referring students to a SLP may have changed over time.

The changes in the scope of practice within the field of speech pathology are also expected to contribute to the difficulty experienced by teachers in deciding whether to refer a child to a SLP. Ehren and Ehren (2001), for example, note that the role of SLPs has expanded to include assisting children with reading and writing, and note the barriers in schools to doing so, including both teacher and whole school inhibiters. Similarly, Ukrainetz and Fresquez (2003) examined SLP roles in schools and how they have expanded over time as the concept of language has expanded. They discuss how the role of SLPs in some instances overlaps with the role of educators, such as in the instruction of oral language, print concepts, phonics and writing. Researchers have argued, therefore, that teachers and SLPs must come together to support children with SLCN (Wright & Kersner, 1998; Law et al., 2001; Hartas, 2004, Glover et al., 2015).

The referral process is the key platform for teachers to collaborate with SLPs in order to accurately identify children with SLCN. This places teachers increasingly in the position of responsibility for the identification of children's SLCN (Sadler, 2005), as SLPs are not common in NSW classrooms (McLeod & McKinnon, 2007).

2.4.2 Knowledge of SLCN. Teachers' limited understanding of children's SLCN is

likely to impact their identification of these needs and subsequent referral to a SLP. As Hall and Elliman (2003) state, "professionals who are well informed about child development in all its aspects will be effective in identifying problems and judging when specialist evaluation might be indicated" (p. 357). Yet, in a sample of 78 teachers in Victorian schools in Australia, Stark et al., (2015) found that teachers' explicit (defining specific terms) and implicit (manipulating and using these concepts) knowledge of basic linguistic constructs was highly variable and limited.

Along with evidence showing variability in teachers' knowledge of SLCN, teachers have also self-reported gaps in their knowledge of SLCN. Dockrell and Lindsay (2001) looked at classroom teachers' views on children with specific speech and language difficulties. Teachers, educational psychologists and SLPs identified 133 children with SLCN, and 59 of these children participated in further research. Children were assessed with a battery of assessments, and their teachers completed an interview and behaviour rating scales. The teachers reported gaps in their knowledge of SLCN as a challenge in meeting the children's needs. Teachers' identification of children with SLCN will be hampered by limited knowledge of these needs.

It is likely that many of the findings discussed, which have demonstrated differences in teacher versus SLP identification of students with SLCN, may be due to gaps in teachers' knowledge of SLCN. This highlights the importance of a deeper investigation into the exact indicators that teachers rely on for identifying children with SLCN.

2.4.3 Professional Development. Without effective screening tools, teachers are left to rely on their own knowledge of typical and disordered development. Better identification of children with SLCN has been demonstrated when teachers have training specifically in this area (Letts & Hall, 2003). Williams (2006) compared 29 teachers from 5 schools in terms of their judgements of students in kindergarten/preparatory and year 1

classrooms, with formal testing of general language ability and phonological awareness. Teachers received a full day of professional development on language impairments, their identification, and classroom support for such needs. Teachers correctly identified 86% of students with language problems; however, they only identified 68.2% of students with typical language development correctly. It was concluded that pre-service training, years of experience, previous exposure to speech difficulties, and professional development all influence teacher judgements. Research, however, suggests that teachers are not sufficiently prepared by either pre-service or in-service training for the identification of speech and language difficulties (Sadler, 2005; Williams, 2006; Law et al, 2001; Mroz, 2006; Moats, 1994, 2009).

2.4.3.1 Pre-service Training. In preparing teachers for the classroom, it is necessary for pre-service training to equip them with a comprehensive understanding of SLCN. This is due to the negative impact these needs may have on students' literacy (Bishop & Adams, 1990; Lindsay & Dockrell, 2004; Conti-Ramsden et al., 2009), behaviour, emotional development and social interactions (Lindsay, Dockrell & Strand, 2007).

However, it appears that teachers are given little to no training in the identification of or support for children's SLCN. In investigating the inclusion of children with speech or language impairments in the mainstream classroom, Sadler (2005) looked at the knowledge and beliefs that Australian teachers held regarding these children: 89 teachers completed a questionnaire investigating their training, specialist knowledge, confidence, attitudes and beliefs, and 90% reported that they did not remember having received any input on speech and language impairments in their initial teacher training and did not feel sufficiently equipped to identify students with speech and language difficulties.

In another study, interviews with 25 early-years teachers in the UK similarly revealed that teachers describe their pre-service and in-service training as inadequate in regard to identifying and supporting children with SLCN (Mroz, 2006). Teachers in this study also requested that more links be made between educators and SLPs to develop this knowledge and practice.

Law et al. (2001) explored the provisions for children with SLCN in England and Wales. The authors made 13 recommendations based on questionnaires completed by 189 SLP managers in Health Trusts. Two of these recommendations concern the need for teacher professional development on working with children with SLCN. One was that more training in this area is needed. The other proposed that a comprehensive, accredited system of professional development and training opportunities be established for all professionals working with children with SLCN.

2.4.3.2 In-service training - Professional Development. Moats (1994, 2009) has discussed the difficulties teachers face due to their inadequate preparation and professional development for the effective teaching of reading or spelling. Moats (1994) employed a survey distributed at the beginning of a voluntary course titled, 'Reading, Spelling and Phonology', to assess special education teachers' knowledge of the elements of language and literacy. Among other questions, teachers were asked to define terms, give examples of phonic units, and analyse speech sounds and syllables. Moats found that even experienced teachers who were motivated to expand their knowledge of language and literacy had a poor understanding of spoken and written language, and contends that their knowledge was too poor to sufficiently teach students these skills. However, the fact that participants voluntarily chose to attend such a course limits the findings of the study, as teachers choosing to attend are seeking to improve their knowledge in these areas,

meaning that in a wider survey poorer results would be expected. In a more recent study, Moats (2009) argued that although there are professional development opportunities available to teachers to improve their knowledge about language, many of these do not give teachers enough time to properly grasp the content, and therefore do little to assist them in their day-to-day professional practices.

2.5 Conclusion

The research reviewed in this chapter has highlighted the barriers that characterise student access to SLPs, including those of policy, caseloads, wait times, and cost. It has also highlighted the difficulties teachers experience in identifying children with SLCN, including the mixed reliability of screening tools and the lack of training (pre-service and in-service) teachers have received in this area.

The present study, therefore, aims to contribute to a better understanding of the indicators used by kindergarten teachers and SLPs to identify SLCN, as these are the catalyst for the referral process and ultimately the means through which children gain access to SLP services.

3. Methodology

This research project set out to explore the following questions:

1. In what ways can the referral of students by teachers to SLPs be improved, as suggested by teachers and SLPs?

2. What importance do teachers versus SLPs assign to indicators used for identifying children with SLCN in the first year of school?

For this purpose, it adopted a mixed-methods approach that included two surveys, one for teachers and one for SLPs, and semi-structured interviews with several respondents to these surveys.

3.1 Data Collection

3.1.1 Surveys

3.1.1.1 Aim. The aim of the surveys was to collect broad quantitative and qualitative information from teachers and SLPs about the referral of students, in the first year of school in NSW, to SLPs.

3.1.1.2 Distribution. Surveys were distributed via social media channels. This is due to the time sensitive nature of the project (less than 5 months from ethics approval to thesis submission) and its focus being not on particular schools or school systems but on teachers of children in the first year of school and SLPs in general. A link to the teacher and SLP surveys was posted on Cassandra Beasley's Facebook page three times throughout the data sampling period, from June-August.

Professional Facebook groups were approached online and asked to post either the teacher or SLP survey link. These included Speech Pathology Australia (SPA), The Primary

English Teaching Association Australia (PETAA), and the NSW Teacher's Federation. Although SPA is a national organisation all SLPs must receive accreditation from SPA, regardless of their practicing state. SPA do not share surveys on their social media channels; however, the SLP survey was distributed out to all of the members of SPA as part of their monthly national eNews bulletin. PETAA posted the link to the teacher survey on their Facebook and Twitter pages. The NSW Teachers Federation's Facebook page was contacted; however, they declined to post the link to the teacher survey, as they stated that they do not post external surveys on their website.

3.1.1.3 Content. There were 71 participants who began the SLP survey, and 51 who completed it. The teacher survey had 65 participants to begin with, and 47 who finished the survey. The surveys were designed to take approximately 5-10 minutes to complete, and were presented and completed through Qualtrics. The surveys were developed to explore the referral of students to SLPs by teachers in NSW in the first year of school.

The surveys had three sections. Section 1 asked about demographic information, after earlier studies suggested that years of experience (Williams, 2006) may impact teacher judgements of student SLCN, or caseload size in the case of SLPs (Brandel & Loeb, 2011). Section 2 examined assessments and the indicators of SLCN, based on research showing the need for more tools for the identification of children with SLCN (e.g. Dockrell & Howell, 2015). Section 3 examined the referral process, due to the limited availability of information in this area (Senate Community Affairs References Committee, 2014).

Table 1: *SLP survey – section overview*

Section	Topic	Types of questions
1	**Demographic and work context information** *Highest qualification, membership to Speech Pathology Australia, years' experience, caseload, work context*	Yes/No Multiple choice

2	**Identification of language and communication difficulties** *Kindergarten assessments, referrals for speech therapy, indicators used by teachers for the referral*	Yes/No Multiple choice Matrix table
3	**The referral process** *What is it, strengths and weaknesses, areas for improvement*	Open-ended

Table 2: *Teacher survey – section overview*

Section	Topic	Types of questions
1	**Demographic and work context information** *Highest qualification, years' experience, experience with Kindergarten, work context, NESA membership*	Yes/No Multiple choice
2	**Experience with referrals to SLPs** *Access to SLP, referral experience, professional development, indicators used by teachers for the referral*	Yes/No Multiple choice Matrix table
3	**The referral process** *What is it, strengths and weaknesses, areas for improvement*	Open-ended

One question of particular importance was the importance ratings of key indicators that teachers state they use for making decisions about whether to refer students to a SLP, and to what extent do these indicators align with those that SLPs state they use. The indicators were developed based on previous research (e.g. Conti-Ramsden, Botting & Faragher, 2001; Visser-Bochane et al, 2017). The indicators were also reviewed by two SLPs and two teachers, with adjustments and suggestions implemented. A final list of 17 indicators was used in the present study, with participants given the option to list additional indicators if they believed that there were others.

The survey also sought to discover ways in which the referral process of students by teachers to SLPs could be improved, as suggested by teachers and SLPs. Draft surveys were reviewed for feedback by staff from Macquarie University in linguistics, speech pathology,

and education. Their feedback was implemented in the survey, and appears in the final version that was completed by participants, included as Appendix D and E.

Both the teacher and SLP surveys included a final question asking whether the participant was happy to be contacted for an interview by the researchers.

3.1.2 Interviews.

There were 7 completed interviews with SLPs and 6 interviews with teachers.

3.1.2.1 Aim. The purpose of the interviews was to collect information from teachers and SLPs about the referral of students in the first year of school to SLPs. Information from the semi-structured interviews built upon questions in the survey and provided greater detail and opportunities for elaboration on information from the initial survey. The interviews allowed for the participants' views and experiences to be further explored and explained. Semi-structured interviews allow for reliable, comparable qualitative data and flexibility to go into greater depth when necessary (Cohen & Crabtree, 2006).

3.1.2.2 Distribution. The first 10 participants from both groups (teachers and SLPs) were contacted for a semi-structured interview lasting between 30-45 minutes. One of the researchers conducted these interviews in person or over the phone, according to the interviewee's preference. These interviews were recorded on the researcher's laptop and coded to ensure the participants' privacy was protected. They were recorded for content analysis only, and the recordings will be deleted at the completion of this research. Content analysis of the interviews was undertaken by the researcher and discussed with the broader research team. All interviewees were provided with the incentive of a $20 gift voucher as a token of appreciation for their participation, which was emailed to them after they had completed the interview.

3.1.2.3 Content. A copy of the guiding questions used for the interviews can be found in Appendix F and G. The interviews focussed on:

- the current referral processes of students by teachers to SLPs;
- the experience of the participant in any involvement they have had with this process;
- their opinions about the referral process – strengths, weaknesses and areas for improvement.

3.1.2.4 Ethical Concerns. As this study involves human participants, this research has been considered and approved as meeting the requirements of the National Statement on Ethical Conduct in Human Research (2007) by the Macquarie University Research Ethics Committee (Reference: 5201700462) (See Appendix A).

Recording the interviews did raise some potential ethical concerns; however, every effort has been made to protect the privacy of the participants involved. To maintain participants' privacy, participants did not identify themselves on the recordings; also, the name of the recorded interview files were coded, and the data collected throughout the study were stored in a password-protected computer. Prior to the interviews, participants were sent the information and consent form (Appendix B and C), and either signed a consent form or emailed to say that they consented to the proposed interview process. Participants were informed that they were allowed to stop the interview at any time and did not have to answer any questions they did not want to.

3.1.2.5 Data Analysis. The surveys included three main types of questions - yes-no, multiple choice, and open-ended. The yes-no and multiple-choice questions were included to give a demographic profile of participants, and their current work contexts, and to identify the importance of some of the indicators used by teachers when making the decision to refer a

student to a SLP. Open-ended questions were designed to allow for more qualitative data regarding the referral process, giving the participants the opportunity to comment on their experience and views of the process in more detail. Basic descriptive statistics were performed in order to "elucidate problems or issues" (p.46, Gersten, 2001).

Data from the open-ended questions and interviews were subject to content analysis. This research technique is used for "making replicable and valid inferences from texts (or other meaningful matters) to the context of their use" (Krippendorff, 2013, p.24). The researcher analysed the participant responses, looking for key themes and ideas that were common between participants. These were then categorised and assigned a percentage of occurrence based on the number of responses in which this idea or theme was mentioned. This enabled the researchers to discover the ideas or themes with the highest level of commonality between participants. This content analysis of the interviews was discussed with the broader research team

3.2 Chapter Summary

This chapter discussed the research design and methods used in this study. Two separate surveys were designed and distributed online, one to teachers and one to SLPs. The surveys explored the professionals' perspectives towards the referral of children in the first year of school to SLPs and the importance they assigned to indicators of SLCN. Interviews with a selection of participants were also organised to further explore their views. All the questions from the surveys and interviews are provided in the Appendix. Data from the multiple-choice and rating questions were analysed using descriptive statistics and comparing teachers' with SLPs' responses. Answers to the open-ended questions of the survey and the interviews were subject to content analysis. The next chapter will present the results of the study.

4. Results

The findings of the present study are presented in this chapter. Sections 4.1 – 4.2 describe the findings from the SLP and teacher surveys, including demographic information, caseload, context and experience with kindergarten children. Section 4.3 compares the results from the two groups; and Section 4.4 presents the results from the SLP and Teacher interviews.

4.1 Speech Pathologist Survey

The survey for speech pathologists conducted online via Qualtrics had 56 participants, with some questions receiving fewer responses than others. In line with the aims of this study, the survey focussed on their experiences working with children in the first year of school, specifically those children referred by teachers to SLPs. Seventy-one surveys were started by participants; however, 15 of these were not completed and have not been included in the reported data.

4.1.1 Participant information. Among the respondents, 94.44% reported being members of Speech Pathology Australia (SPA), and 5.56% that they were not members of SPA.

Asked about their highest level of education (n=56, see Figure 1), 62.50% reported holding a Bachelor's degree, 30.36% a Master's degree, and 3.57% a PhD. The remaining 3.57% (2 participants) selected 'other': one reported holding a Graduate Diploma (area unspecified), and the other a Postgraduate Diploma while currently completing a PhD.

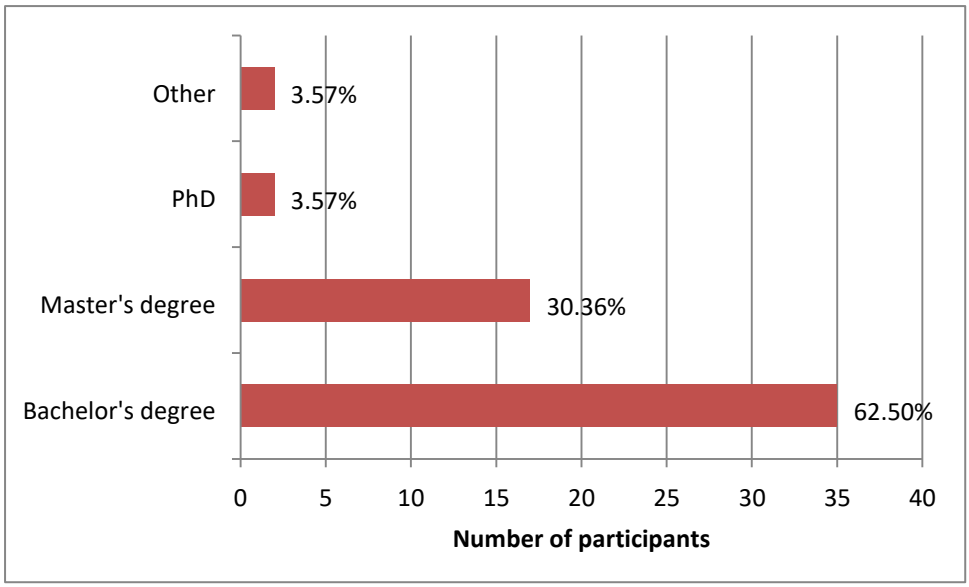

Figure 1: Speech pathologist participants' reported highest level of education (n=54)

As shown in Figure 2, the single largest subgroup of respondents (45.45%) reported that they had been involved in providing speech pathology services to children for more than 10 years.

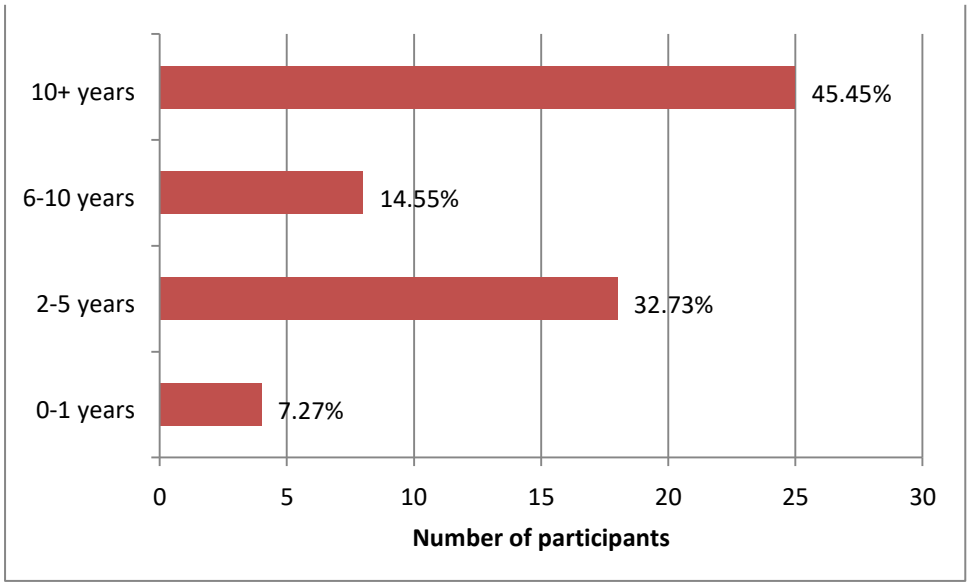

Figure 2: SLP survey: years of experience providing therapy to children (n=55)

The participants who reported having Master's degrees were spread across 2-10+ years' experience, and participants who reported having PhDs were less experienced, with 0-5 years

(see Table 3).

Table 3: *Participants' highest level of education and number of years experience*

		Highest level of education			
		Bachelor's degree	Master's Degree	PhD	Other
Number of years' experience providing speech pathology services to children	0-1	2	1	1	0
	2-5	10	7	1	0
	6-10	6	1	0	1
	10+	16	8	0	1

4.1.2 Speech Pathologists' Clients (caseload). More than half, 55.77% (29), of the respondents worked in a school setting. The number of days per week that the speech pathologists worked in a school setting is shown in Figure 3.

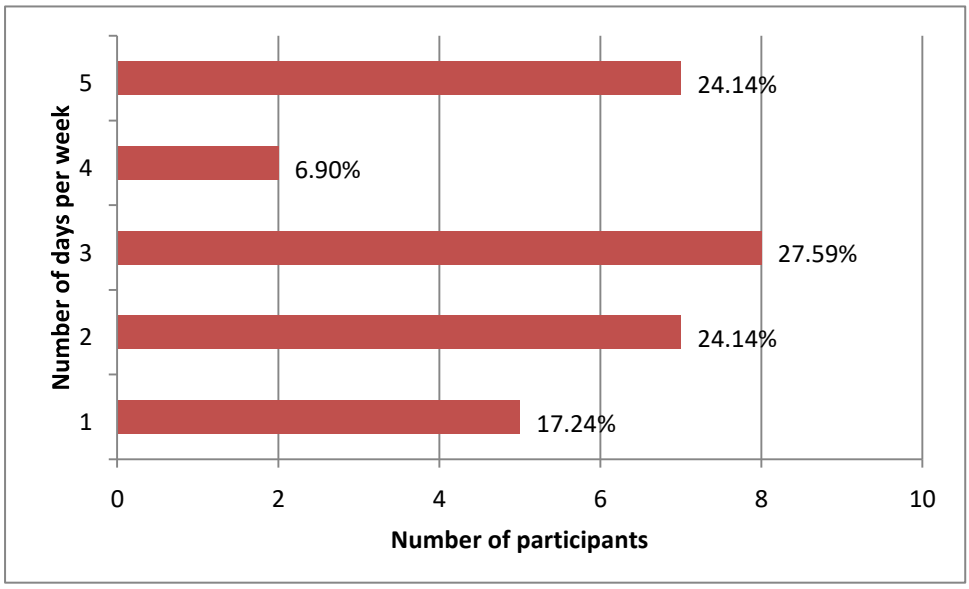

Figure 3: Speech pathologist days per week in a school setting (n=29)

As students in the first year of school are the focus for this research, participants were asked what percentage of their caseload was made up of kindergarten students. The results are displayed in Figure 4. Of the surveyed speech pathologists, 61.11% reported that less than

25% of their caseload were kindergarten students. None of the speech pathologists identified their caseload to be greater than 75% kindergarten students.

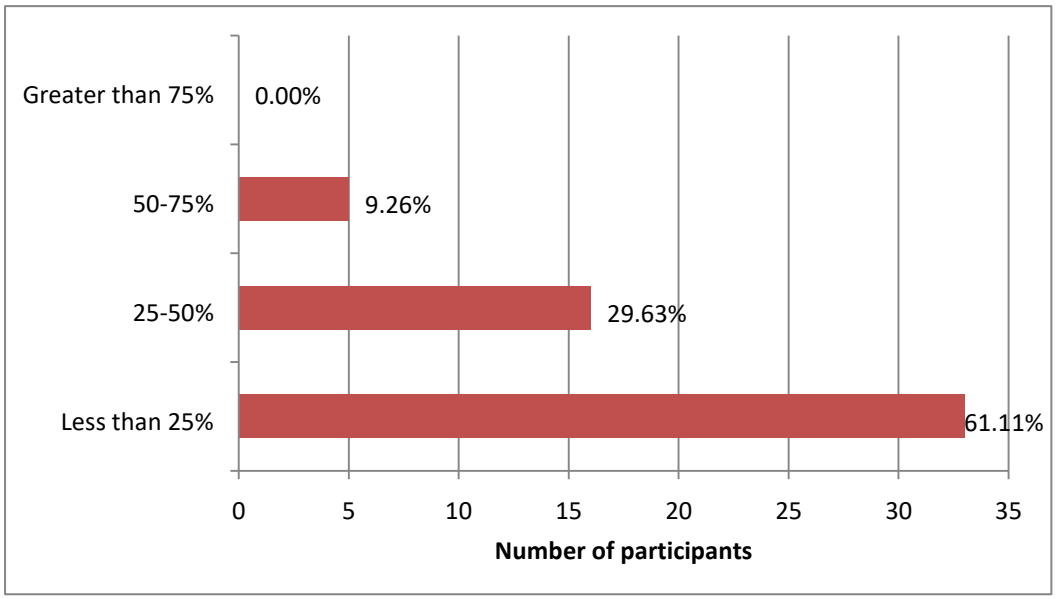

Figure 4: Percentage of speech pathologist caseload in kindergarten (n=54)

To examine the prevalence of teacher referrals, speech pathologists were asked what percentage of their caseload came from teacher referrals. Figure 5 shows that the largest subgroup of SLP respondents (36.54%) selected that 25-50% of their caseload was from teacher referrals.

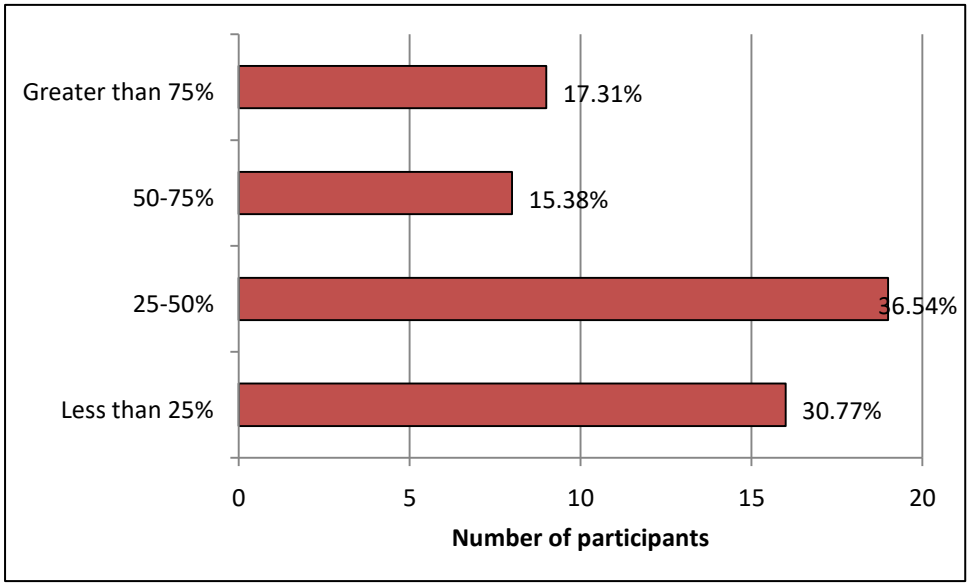

Figure 5: Percentage of speech pathologist caseload from teacher referrals (n=52)

The survey also asked speech pathologists how many of the students who were referred to them by teachers who were actually judged as needing speech therapy. Of the 51 responses to this question, 62.75% reported that more than 75% of these students needed speech therapy (see Figure 6).

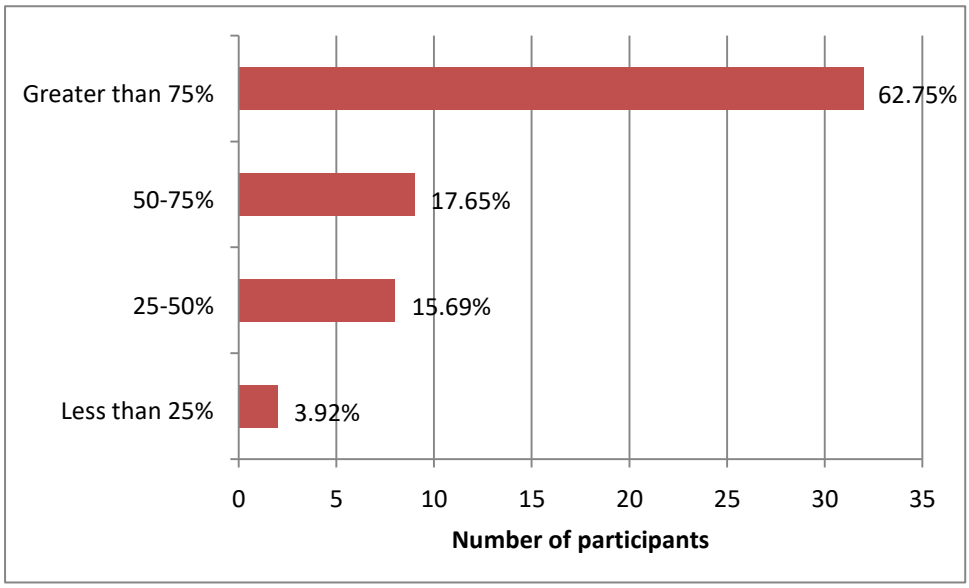

Figure 6: Percentage of students referred by teachers to speech pathologists who need speech therapy (n=51)

4.1.3 Kindergarten Assessments Of the 51 respondents, 88.24% (45) assess kindergarten children. The assessments used, in order from most used to least used, and including what the tests are intended to measure, are provided in Table 4.

Table 4: *Assessments used by speech pathologists for Kindergarten children.*

Assessment	**% of partici-pants**	Age	Year	Admin time	Admin type	Description
Clinical Evaluation of Language Fundamentals (CELF-4)	**70.59%**	5-21	2006	30-60 mins	Individual	Assesses language skills, including: receptive and expressive language; language structure content and memory; and participants' working memory.
Sutherland Phonological Awareness Test – Revised (SPAT-R)	**62.75%**	5-10	2003	10-15 mins	Individual	Assessment of the phonological awareness skills needed for early literacy development. Phonological awareness is tested at the levels of syllable, onset-rime, and phoneme (CVC and consonant clusters). The skills of sound identification, blending, segmenting and manipulation are also assessed.
Narrative retell task	**37.25%**	varies	varies	varies	Individual	A narrative retell usually involves the student listening to a story (event or experience) and recounting it orally to the assessor without prompts (Elleseff, 2017).
School Entry Alphabetic and Phonological Awareness Readiness Test (SEAPART)	**15.69%**	4-5	2005	10 mins	Individual and group	The pre-cursor to the SPAT-R. Measures pre-literacy skills which are mastered in the first year of school. Assesses participants' phonological awareness and alphabet knowledge.
York Assessment of Reading for Comprehension (YARC)	**13.73%**	5-7.11	2012	20 mins	Individual	Assesses early reading skills, including: letter sound knowledge; early word recognition; and phoneme awareness. This assessment also measures a student's progress in reading.

Neale Analysis of Reading Ability	**13.73%**	6-12.11	1999	20 mins	Individual	Assessment of oral reading comprehension, discrimination of initial and final sounds, letter sound knowledge, spelling, blending, and auditory discrimination.
Comprehensive Test of Phonological Processing (CTOPP-2)	**13.73%**	4-24	2013	40 mins	Individual	Assesses reading-related phonological processing skills. Tests include measures of segmenting, blending, sound matching phoneme isolation, non-words, rapid naming.
Educheck (Neal Phonemic Skills Screening Test)	**7.84%**	5-9	1988	-	Individual	Assesses reading and viewing through assessment of phonics.
Preschool and Primary Inventory of Phonological Awareness (PIPA	**7.84%**	3-6.11	2000	30 mins	Individual	Assesses the child's ability to detect, isolate, manipulate and convert sound units at the syllable, onset-rime and phoneme level. It includes measures of syllable and phoneme segmentation, rhyme, alliteration, phoneme isolation, and letter sound knowledge.
Peabody Picture Vocabulary Test	**5.88%**	2.5-90	2007	10-15 mins	Individual	Measures receptive vocabulary for Standard American English through assessing student selections of pictures to match words.

4.1.4 Other Kindergarten Assessments. 'Other' was selected by 49.01% of participants (n=25) when asked what Kindergarten Assessments they use; and of these responses, there were two tests that were most commonly used: the Renfrew Action Picture Test (RAPT) was used by 52%, and the CELF-P2 was used by 44% respondents, who selected 'other'. These additional assessments and the proportion of participants who cited them are shown in Table 5.

Table 5: *Additional Kindergarten assessments*

Assessment	%	Description
Renfrew Action Picture Test (RAPT)	52%	A standardised assessment that elicits samples of spoken language from participants to assess the information they are able to express and the grammar used for their expressive language
CELF-P2	44%	Used as an overview assessment of preschool students' language skills
Diagnostic Evaluation of Articulation and Phonology (DEAP)	16%	Detects and differentiates between a variety of articulation problems, including measures of articulation, phonology and oro-motor ability. The assessment provides an evidence base for clinical management decisions.
Rosner Test of Auditory Analysis	12%	Assesses students' ability to process sequences of syllables and sounds in order to identify children whose auditory skills make it difficult for them learn.
Bureau Auditory Comprehension Test	12%	Measures auditory and speech perception in children
The Analysis of Language of Learning (ALL)	4%	NA
Neilson's Astronaut Spelling (invented words)	4%	Measures phonemic awareness through spelling attempts of familiar words.
Daz Roberts Test of Articulation (DAZ)	4%	NA
Fisher Logeman Test of Articulation	4%	Assesses a child's phonological system through analysis of articulatory errors.

Additional formal tests that were used by only one respondent included the Kindergarten Language Screening Test (KLST-2), Test of Problem Solving 3 (TOPS-3) and Test of Pragmatic Language 2 (TOPL-2), The Bus Story, Doorway to Practical Literacy

(DIPL) assessment, Preschool Language Scales -5, Fisher Atkins, and Oral and Written Language Scales (OWLS). Informal assessments were also cited, including checklists for autism spectrum disorder and stuttering, articulation tests or surveys, informal screeners, and conversational activities that test voice, fluency, expressive language, and pragmatic language skills.

4.2 Teacher Survey

Of the 65 responses to the teacher survey, 18 did not finish to completion, leaving 47 participants. All but 2 of these respondents were from schools in NSW, which is the focus area of this study. The other 2 participants were from Victoria: their results were included in the analysis as, although many schools in Victoria have on-site SLPs, both of these participants did not have a SLP at their school, making their experience similar to those of the NSW teachers.

4.2.1 Participant information. *Education.*

All participants reported having a minimum qualification of a Bachelor's degree (74.47%) (see Figure 8), most of these being a Bachelor of Education (Primary). A further 19.15% had a relevant Master's degree in teaching, special education or educational leadership. Most – 65.96% - of the participants were also members of the NSW Education Standards Authority (NESA).

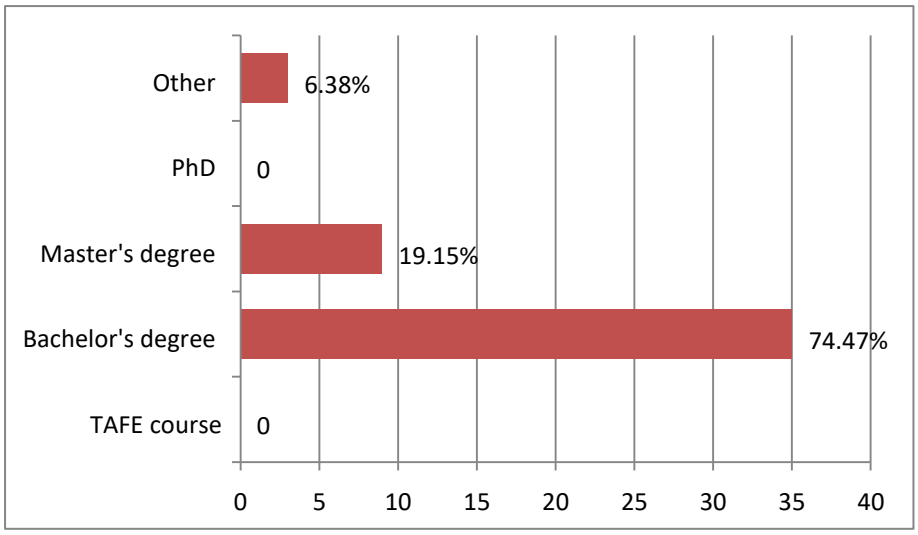

Figure 7: Teacher participants' highest level of education (n=47)

Experience. Almost half of the participants (48.94%) had worked as a primary school teacher for more than 10 years, and a small proportion, 2.13%, had worked for 1 year or less. The spread of participant experience is shown in Figure 8.

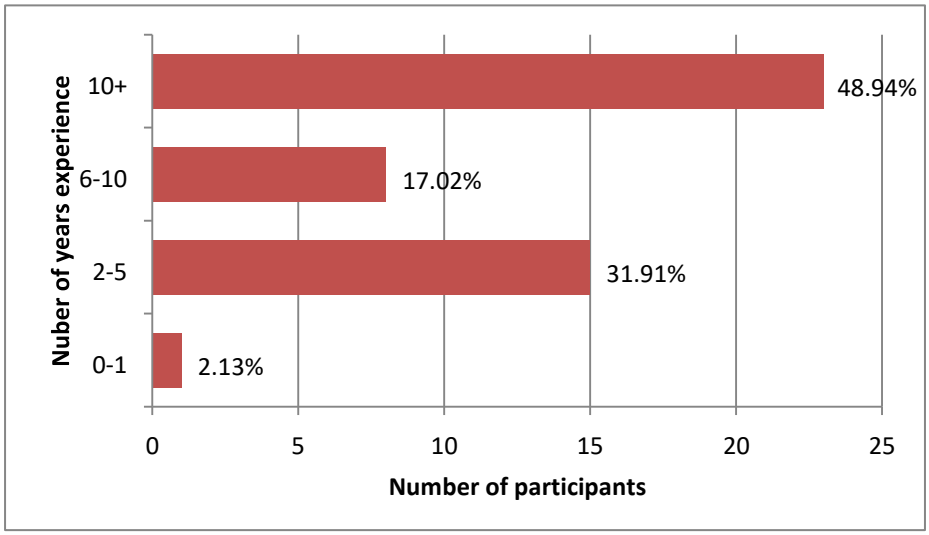

*Figure 8:*Teacher participants' years of teaching experience (n=47)

Recent Kindergarten experience. All respondents reported having experience teaching kindergarten, with the majority of teachers, 65.96%, currently teaching kindergarten (see Figure 9).

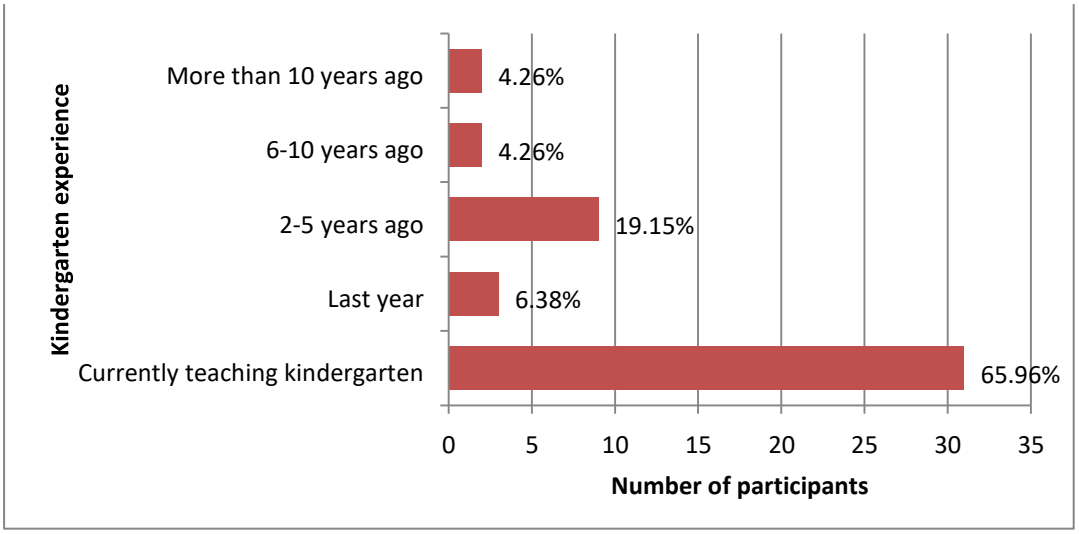

Figure 9: Recent kindergarten experience (n=47)

4.2.1.4 School Context. The school context showed a spread of participants from Public, Independent and Catholic schools (see Figure 10).

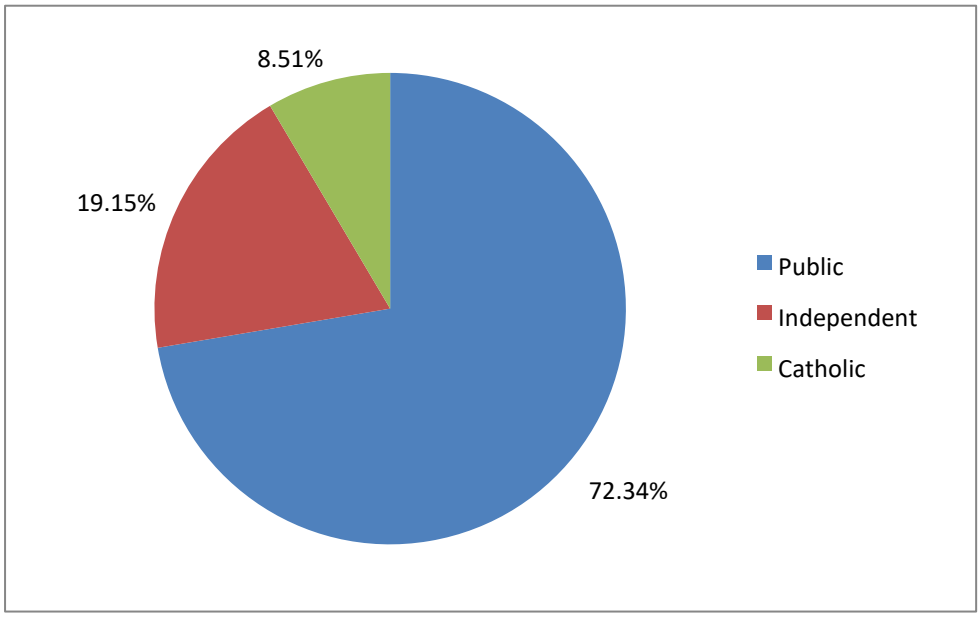

Figure 10: Participants' school context (n=47)

Most of the survey participants worked in a public school (72.34%), which is reflective of the percentage of students attending public schools as opposed to Catholic and Independent schools reported by the Australian Bureau of Statistics (2016), which was

65.4%. Independent school teachers made up 19.15% of the participants, and 8.51% worked in a Catholic school.

The school context did not appear to impact on whether respondents had experience referring children to speech pathologists or learning support teams/teachers, or on suggesting to parents that they take their child to see a speech pathologist due to language and communication difficulties (see Figure 11).

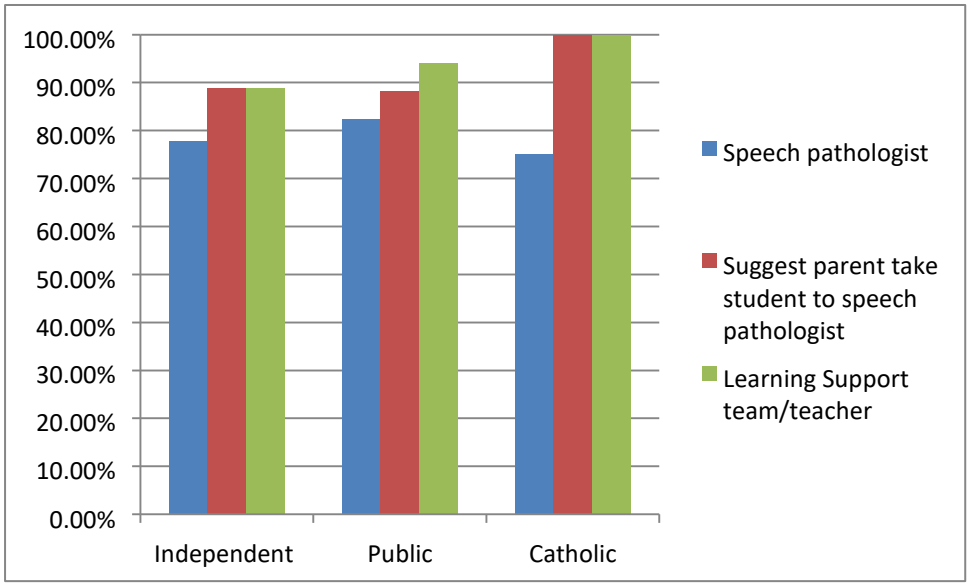

Figure 11: School context and previous referrals (n=47)

4.2.1.5 School Socio-economic Status – ICSEA values. Participants were asked to provide their current (or most recent) school's postcode and suburb, to gain an understanding of each school's socio-economic status. This was achieved through information gathered from the Australian Curriculum Assessment and Reporting Authority's (ACARA) 'My School' website, which provides information about over 9,500 Australian primary and secondary schools. Each school on 'My School' is given an 'index of community socioeconomic advantage' (ICSEA) score. The ICSEA score for each school is calculated from student factors including parents' occupation and education, as well as school factors including schools' geographic location and the proportion of indigenous students (ACARA, 2017). It does not include any data regarding the school's facilities, staff or teaching programs. The mean ICSEA score is 1000, with most schools scoring between 800 (low) and 1200 being (high). The full range of values for ICSEA scores is from 500, representing schools which have extremely educationally disadvantaged students, to 1300, representing schools which have very educationally advantaged students.

For this study, the school postcodes and suburbs were searched using the My School website, with the corresponding ICSEA score placed in an Excel document for further analysis. For postcodes and suburbs with multiple matching schools, of which there were 9, an average of ICSEA schools was calculated, as the differences in scores between these schools were relatively minor. For example, the postcode of 2157 and suburb of 'Glenorie' had two possible public primary schools, Glenorie Public School which had an ICSEA score of 1034, and Hillside Public School with an ICSEA score of 1016; and the mean of these scores was calculated to be 1025. The greatest range in ICSEA scores from one postcode was 134 (ICSEA scores from 920-1054) and the smallest range was 9 (ICSEA scores from 11351144).

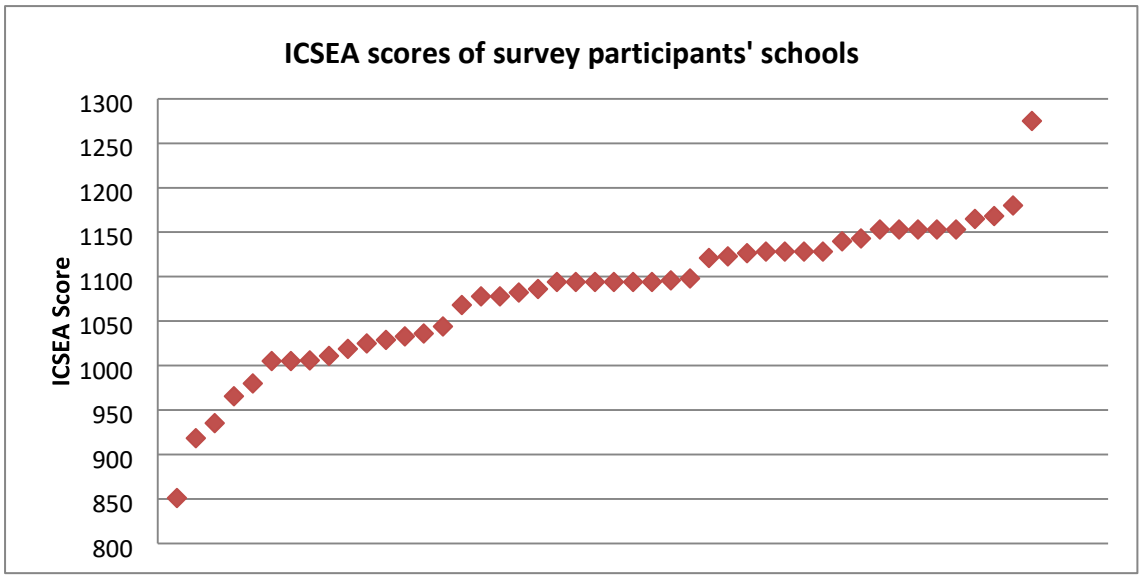

Figure 12: ICSEA scores of survey participants' schools (n=46)

The ICSEA scores for all participants' schools can be found in Figure 12. The scores for the survey participants' schools ranged from 851 to 1275, with an average score of 1081.14 and median score of 1094. The results show that most of the participants selected were working in schools considered above average in terms of socio-economic status, according to the ICSEA, as 89% of participants' schools scored above 1000. Figure 13 shows the brackets of schools with different ICSEA scores.

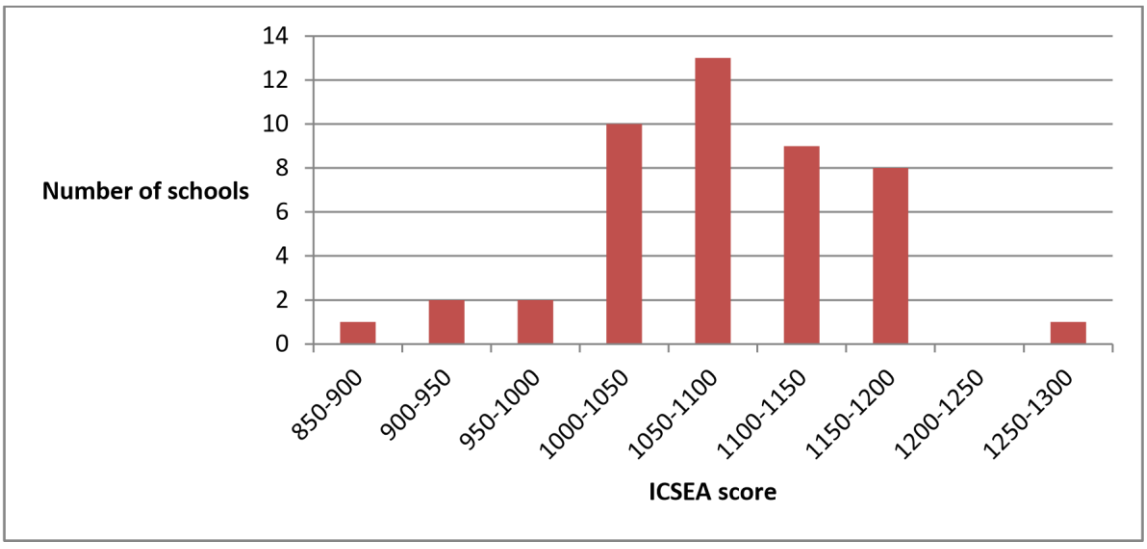

*Figure 13:*Grouped ICSEA scores of survey participant's schools (n=46)

ICSEA scores and referrals. When ICSEA scores were put into brackets of low (850-1000), mid (1000-1150) and high (1150+), the participants' schools' ICSEA score, did not appear to impact the participant's experience in referring a student to learning support. A high proportion, greater than 88.89%, of teachers from low, mid and high ICSEA scored schools reported having experience in referring children to learning support teams (or teachers) (see Figure 14). However it is important to remember that these scores represent the self-reported likelihood not actually referrals being described.

Participants' reported experience with referrals directly to a speech pathologist were highest in low ICSEA scored schools, at 100%, compared to 76.67% in mid-ICSEA-scored schools and 77.78% in high-scored schools. The greatest difference in the participants' experience in referrals in relation to ICSEA scores came from suggesting that a parent take their child to a speech pathologist. This was only 60% in low-ICSEA-scored schools, whereas it was 88.89% or greater in mid- to high-ICSEA-scored schools.

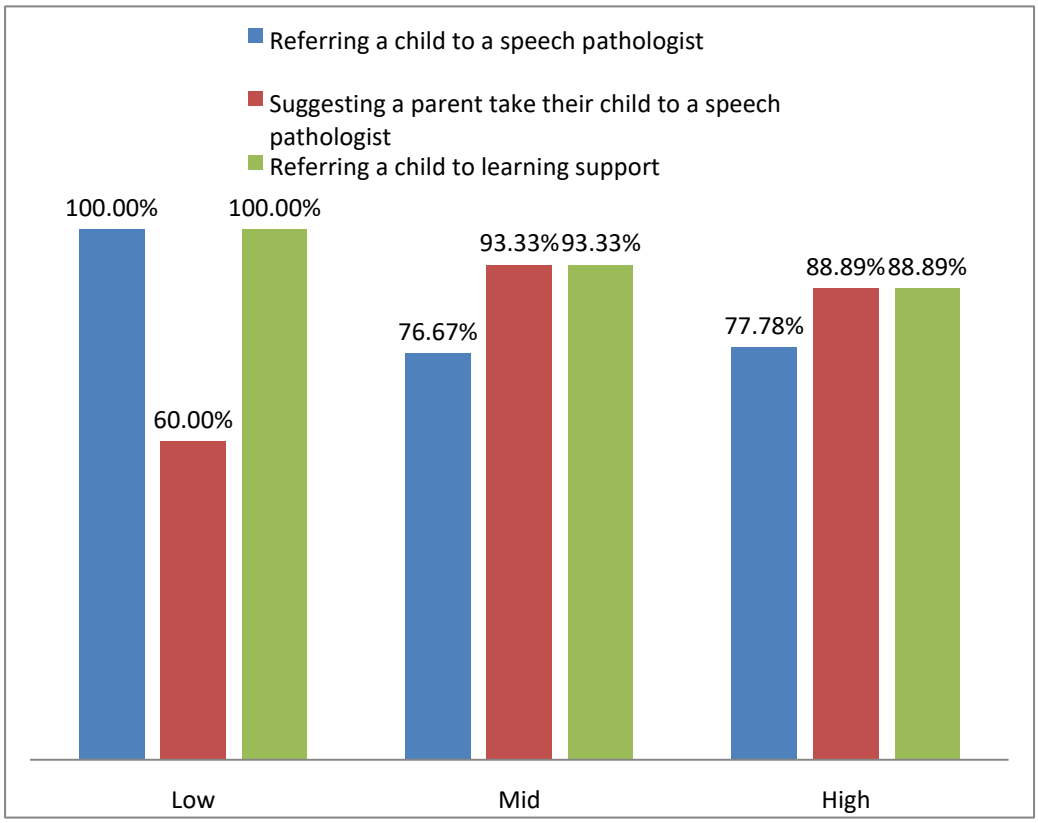

Figure 14: ICSEA scores and referral experience (n=46)

4.2.1.7 Referrals to Speech Pathologists. The participants had experience in referring students to speech pathologists, as 80.85% of survey participants had previously done this. The number of students each year (on average) that the participants had referred to a speech pathologist, which are shown in Figure 15, reflects the levels of prevalence reported in the AEDC index (2015).

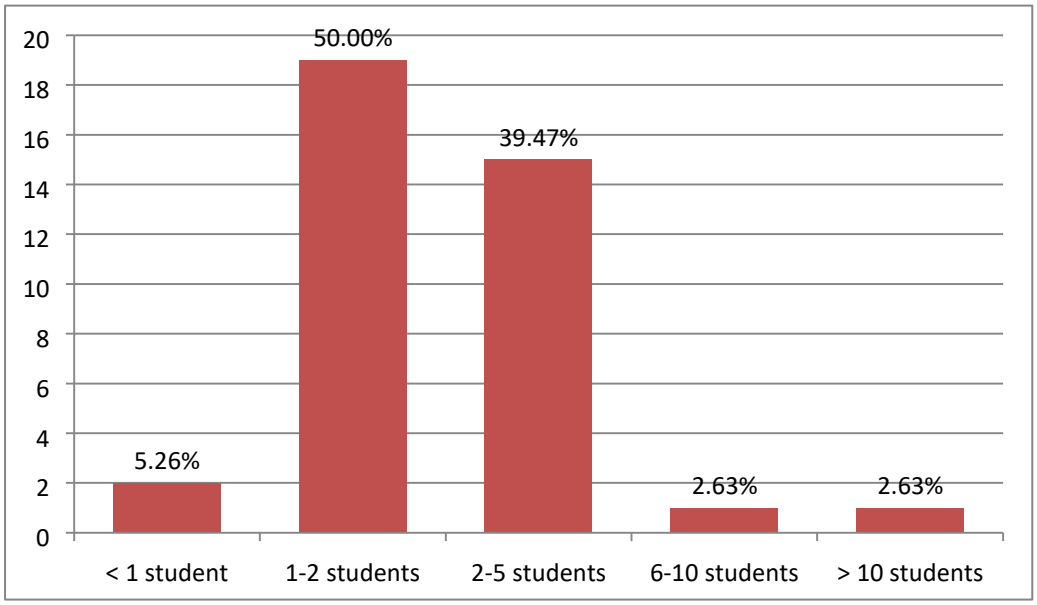

Figure 15: Number of students referred to a speech pathologist per year (n=47)

When looking into the teachers' school contexts, 34.04% of teachers' schools had 'inhouse' speech pathologists, whereas 65.96% did not. Of the teachers that said there was a speech pathologist working at their school (n=16), half of those schools had a speech pathologist working there for one day per week, the spread over days per week being shown in Figure 16.

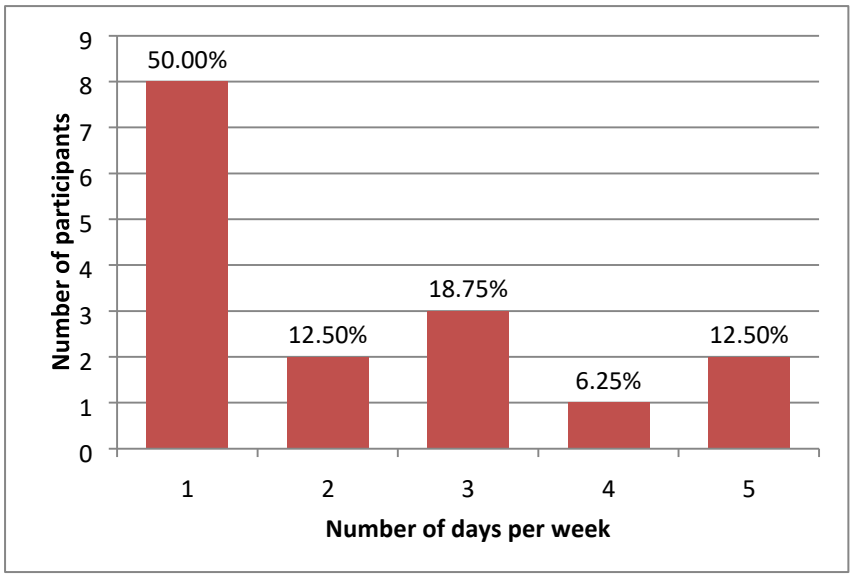

Figure 16: In-house speech pathologist days per week

The participants' experience in referring a student with a language and communication problem to a speech pathologist did not appear to be impacted by whether there was an on-site speech pathologist or not (see Table 6).

Table 6: *Referral experience and in-house speech pathologist*

		Does your school have an 'in-house' speech pathologist?	
		Yes	No
Have you ever referred a student to a speech pathologist?	Yes	12 (75.00%)	26 (83.87%)
	No	4 (25.00%)	5 (16.13%)

88.89% of participants (n=47) said that they had previously suggested to a parent that they take their child to see a speech pathologist. An even higher number, 94.44%, had referred a student to a Learning Support team or teacher because of a language and communication difficulty.

In comparing the responses of those who had referred students to a speech pathologist, parent or learning support team, Figure 17 was created. A small percentage,

6.38%, had never referred a student to either a speech pathologist or a learning support team or teacher.

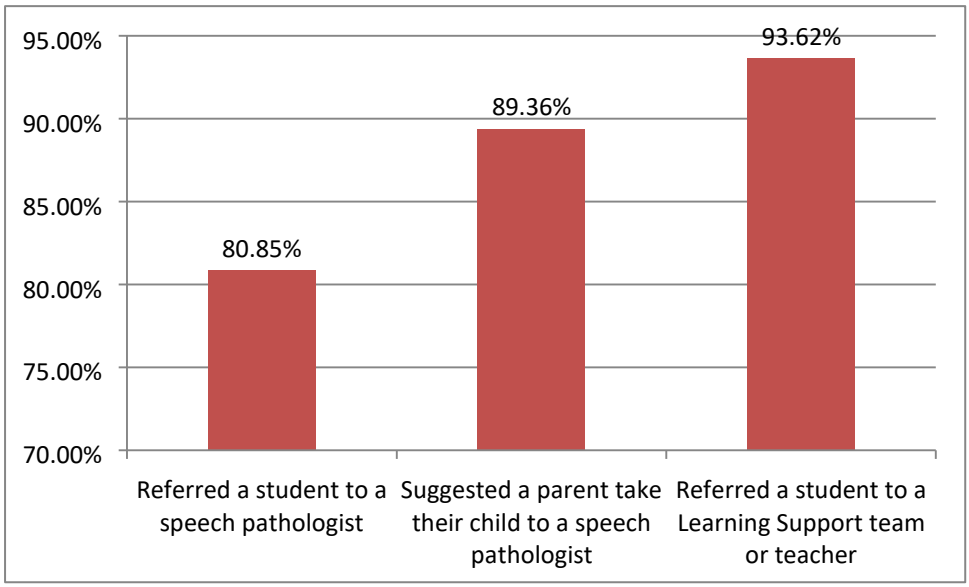

Figure 17: Previous action for students with language and communication difficulties (n=47)

4.2.1.8 Professional Development. Participants were asked whether they had had any professional opportunities to develop skills and knowledge about speech therapy (such as professional development, conferences, team teaching), and 25 respondents selected yes. When looking at the data from these respondents, it appears that they were more likely to refer students to speech pathologists, learning support teams or teachers and suggest that parents take their children to see speech pathologists, than those were who had not engaged in professional development opportunities (see Figure 18).

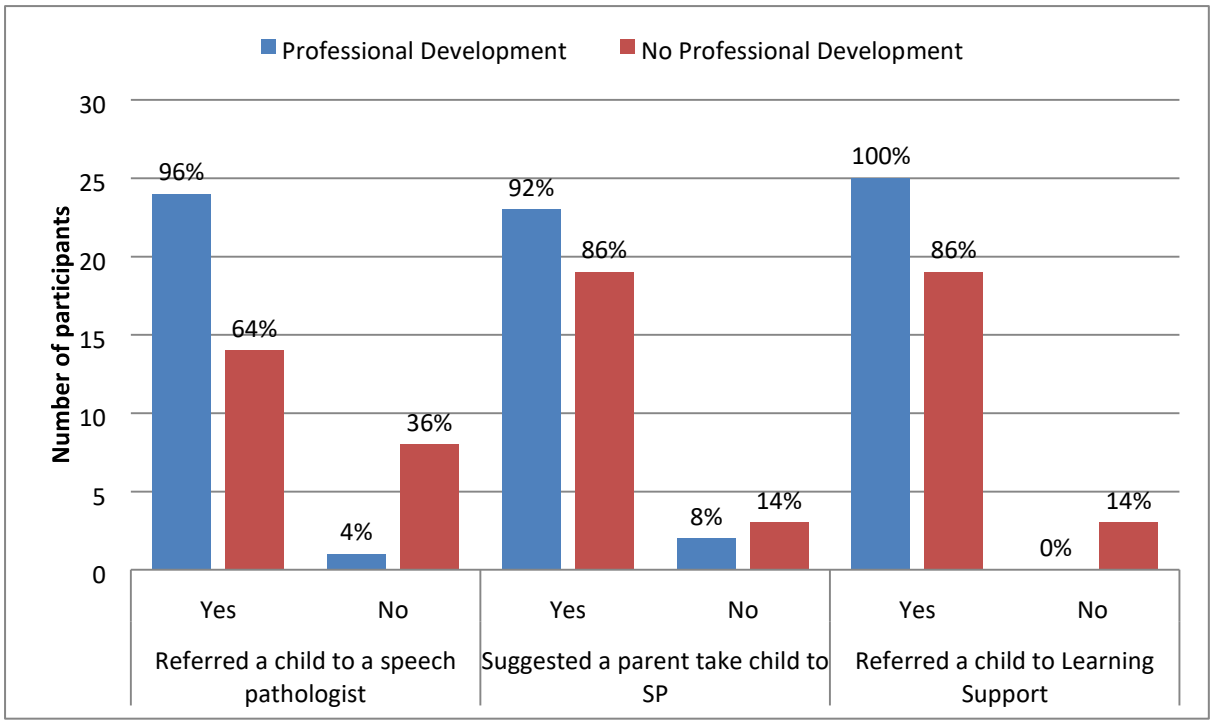

Figure 18: Professional development and the referral decision (n=47)

4.3 Comparisons between Teacher and Speech Pathologist responses. There were four questions that were included in both the teacher and the speech pathologist surveys. The responses of each group have been included here to allow for easy comparison.

4.3.1 Indicators for the referral decision. Given a list of 17 indicators used by teachers to determine whether a student should be referred to a speech pathologist, survey participants rated each indicator on a scale of 1 (not important) to 5 (very important).

4.3.1.1 Speech pathologists. Each indicator was rated as 'moderately important' to 'very important' by at least 4 SLP respondents. Figure 19 shows each of these indicators and the importance ratings of the respondents (n=51).

- The indicators that were rated as 'very important' by the highest number of respondents were *'Difficulty following instructions'* 56.86%, closely followed by *'Difficulty with speech sounds'* at 54.90%.

- *'Difficulty with articulation'* and *'Difficult answering personal questions (e.g. name, age etc.)'* were also rated as 'very important' by a high proportion of respondents, each receiving 52.94%.
- The following indicators were viewed by all speech pathologists to be at least 'slightly important' (no participants rated them as 'not important'): *'Difficulty with speech sounds', Difficulty with articulation', 'Difficulty with social communication', 'Difficulty following instructions', 'Poor use of sentences or expression', 'Difficulty naming or identifying objects and/or actions', 'Difficulty listening'.*
- The lowest rated indicators from the list were '*Difficulty with written language'* and *'Difficulty with phonological awareness tasks such as rhyming'*, each being rated as 'not important' by 7.84% of participants.
- *'Previous speech therapy'* and *'Completing tasks in a set time frame'* both equally received the least amount of ratings of 'very important', at 5.88%.

Other indicators. There were 33.33% of speech pathologists who reported that they believed there were other key indicators used by teachers to gauge whether a kindergarten student may need to be referred to a speech pathologist. The other indicators listed by speech pathologists can be broken down into the following subgroups:

- Stuttering (29.4%).
- Receptive and expressive language problems including unintelligible speech, difficulty recounting a story, and difficulty holding a conversation, and difficulty answering or asking questions.
- Social reasons such as low group participation, extreme shyness, or hesitations in initiating spontaneous communication.

- Concern or recommendations from other parties, such as medical professionals (e.g. paediatrician, psychologist) and parents, or previous diagnoses such as autism.

  Voice problems, including voice quality and voice disorders.

- Family situation and history such as if the student had siblings seeing a speech pathologist, and if the student was learning English as an additional language.

4.3.1.2 Teachers. Teachers were given the same list of 17 indicators to rate the importance of, from 'not important' (1) to 'very important' (5). There were 44 responses to this question, which can be seen in Figure 20.

- The indicators that were equally rated 'very important' by the highest number of respondents, at 77.27% each, were *'Difficulty with speech sounds'* and '*Difficulty with articulation'*.
- The two second highest indicators rated as 'very important' were '*Difficulty answering simple personal questions (e.g. name, age, etc.)'* at 56.81% and *'Difficulty learning to read'* at 50.00%.
- The indicators that received the lowest rating among all competencies, each being rated as 'not important' by 11.36% of respondents, were *'Difficulty completing tasks*

  in a set time frame' and '*Poor performance in an in-class assessment*'.

Other indicators. There were 36.36% (16) of teachers who believed there were other indicators used by teachers in the referral process (n=44). Some teachers listed articulation difficulties as an additional indicator; however, this was included in the given list, so these responses have not been included in this analysis.

- Expressive language difficulties were the most highly reported other indicator, at 50%. This category included responses such as poor communication of their needs, difficulty forming sentences, and inability to name common objects.

  Receptive language difficulties were cited by 27.78% of participants as an additional indicator, which included off-topic answers to questions and retelling of simple stories.
- Social communication problems were mentioned by 18.75% of teachers, such as how they handle conflict in games and play, how they play with peers, and eye contact during social interactions.
- Physical disabilities were also noted by 12.50% of participants, for example, a child having no teeth.

- Both teachers and speech pathologists were asked to rate indicators used by teachers when making the referral decision, from not important (1) to very important (5). The percentages of each group who rated the indicator as ‘very important’ are shown in Table 7. Areas of significant difference have been highlighted in green.

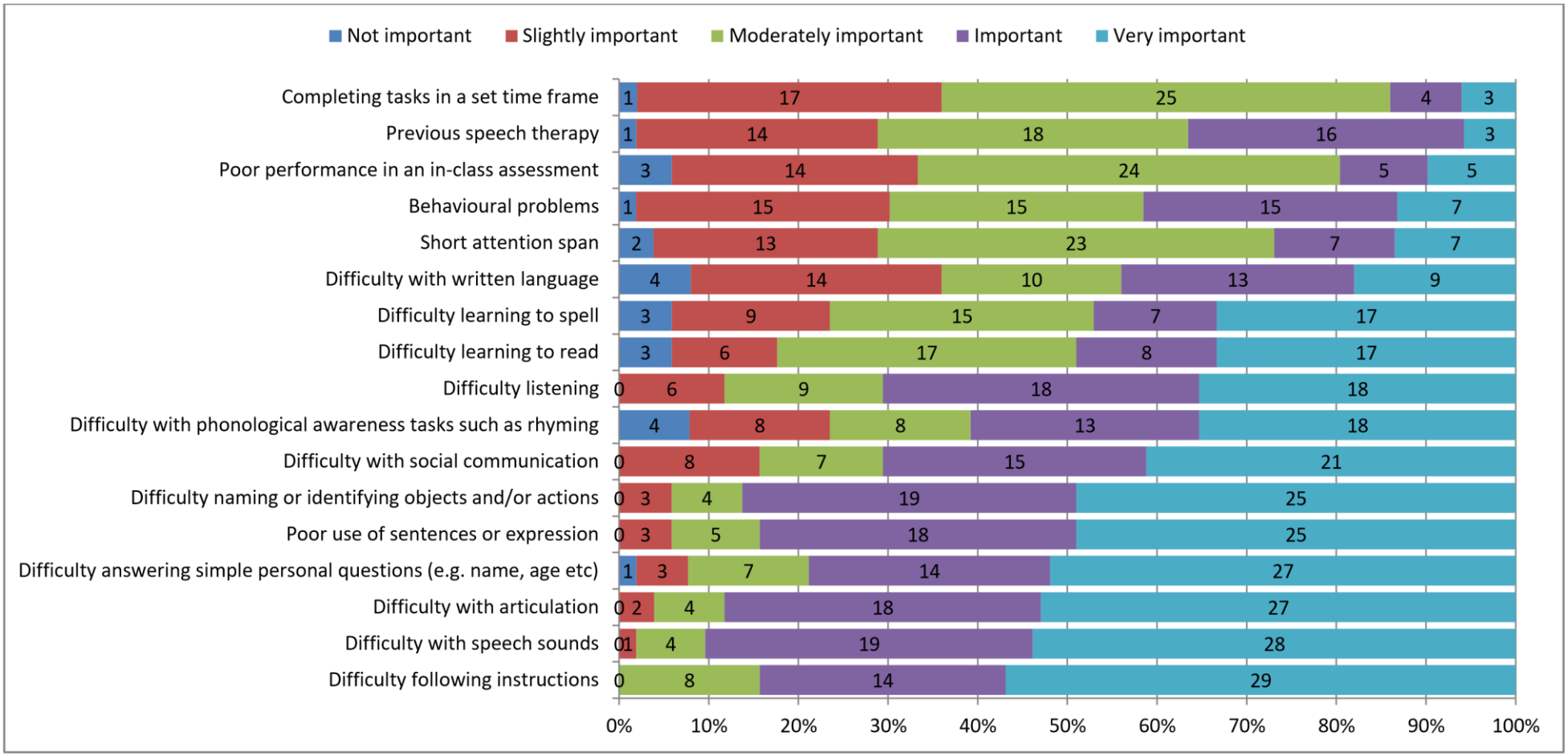

Figure 19: Indicators used in the referral decision – speech pathologists

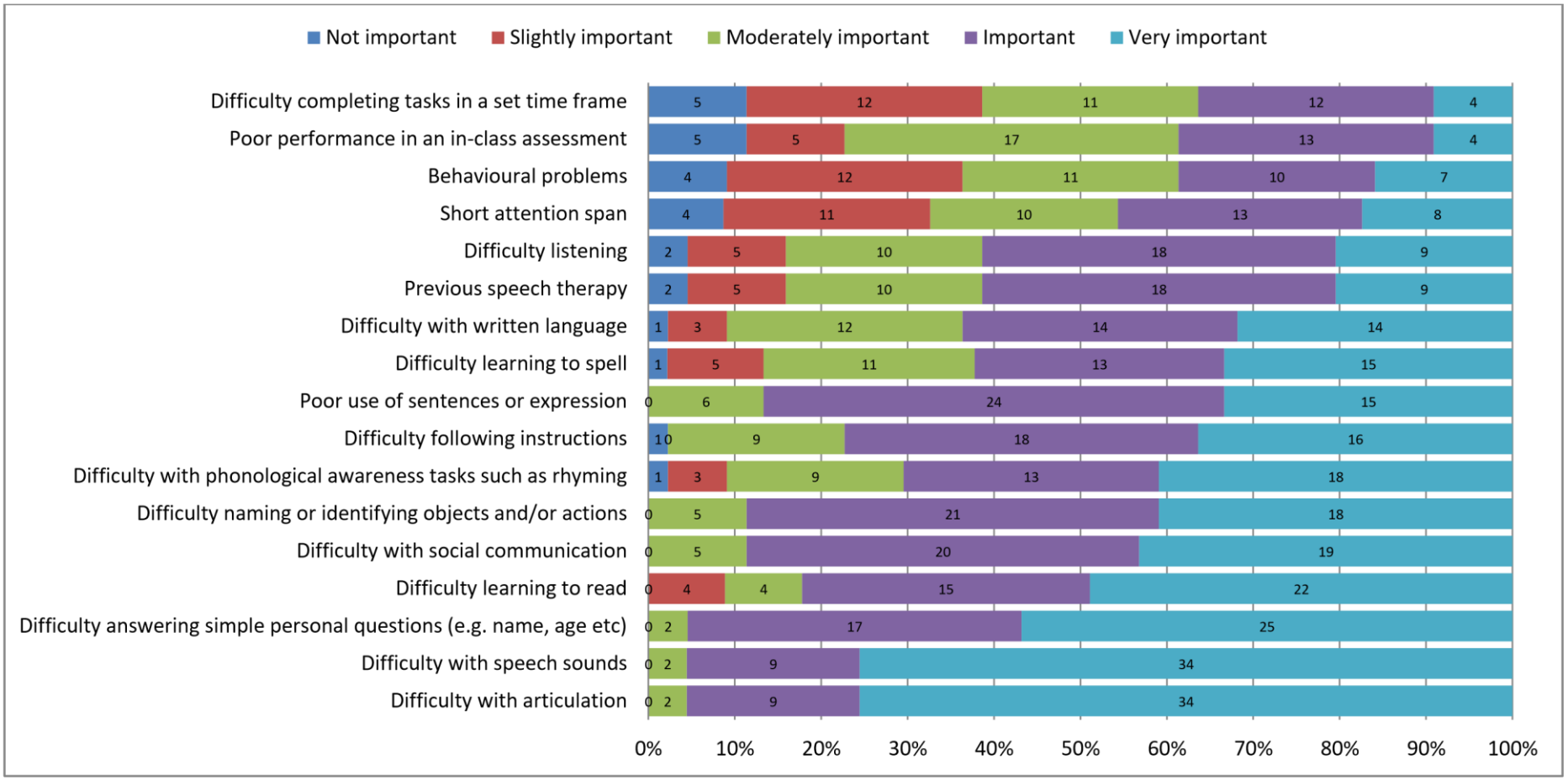

Figure *20:* Indicators used in the referral decision – teachers

Table 7: *Comparison between teacher and speech pathologist responses regarding the importance of different indicators for referral.*

	Not important		Slightly important		Moderately important		Important		Very important	
Indicator	SP	T	SP	T	SP	T	SP	T	SP	T
Difficulty with speech sounds	0.00%	0.00%	1.96%	0.00%	7.84%	6.06%	37.25%	15.15%	54.90%	78.79%
Difficulty with articulation	0.00%	0.00%	3.92%	0.00%	7.84%	6.06%	35.29%	15.15%	52.94%	78.79%
Difficulty with social communication	0.00%	0.00%	15.69%	0.00%	13.73%	12.12%	29.41%	45.45%	41.18%	42.42%
Difficulty following instructions	0.00%	0.00%	0.00%	0.00%	15.69%	21.21%	27.45%	48.48%	56.86%	30.30%
Difficulty answering simple personal questions (e.g. name, age etc)	1.96%	0.00%	5.88%	0.00%	13.73%	6.06%	27.45%	42.42%	52.94%	51.52%
Poor use of sentences or expression	0.00%	0.00%	5.88%	0.00%	9.80%	12.12%	35.29%	54.55%	49.02%	36.36%
Difficulty naming or identifying objects and/or actions	0.00%	0.00%	5.88%	0.00%	7.84%	12.12%	37.25%	51.52%	49.02%	36.36%
Difficulty with phonological awareness tasks such as rhyming	7.84%	0.00%	15.69%	6.06%	15.69%	15.15%	25.49%	33.33%	35.29%	45.45%
Difficulty learning to read	5.88%	0.00%	11.76%	6.06%	33.33%	6.06%	15.69%	33.33%	33.33%	57.58%
Difficulty learning to spell	5.88%	3.03%	17.65%	9.09%	29.41%	24.24%	13.73%	27.27%	33.33%	39.39%
Difficulty listening	0.00%		11.76%		17.65%		35.29%		35.29%	
Poor performance in an in-class assessment	5.88%	12.12%	27.45%	9.09%	47.06%	33.33%	9.80%	36.36%	9.80%	9.09%
Previous speech therapy	1.96%	6.06%	27.45%	9.09%	35.29%	21.21%	31.37%	45.45%	5.88%	18.18%
Short attention span	3.92%	12.12%	25.49%	18.18%	45.10%	27.27%	13.73%	36.36%	13.73%	12.12%
Behavioural problems	1.96%	12.12%	29.41%	21.21%	29.41%	27.27%	29.41%	27.27%	13.73%	12.12%
Completing tasks in a set time frame	2.00%	12.12%	34.00%	18.18%	50.00%	30.30%	8.00%	33.33%	6.00%	6.06%
Difficulty with written language	8.00%	3.03%	28.00%	6.06%	20.00%	24.24%	26.00%	33.33%	18.00%	33.33%

**SP denotes speech pathologist, T denotes teacher.*

Table 8 shows the ranked order of the indicators that were selected as 'very important' from speech pathologists and teachers. Key differences are highlighted in green; the greatest difference in ranking being for the indicator *'difficulty following instructions'*, which was rated as 'very important' by the largest number of speech pathologists but was the ninth highest 'very important' indicator according to teachers.

Table 8: *Ranking of indicators selected as 'very important' by teachers and speech pathologists.*

Indicator for the referral decision	SP	T
Difficulty following instructions Difficulty	1	9
with speech sounds	2	1
Difficulty with articulation	3	1
Difficulty answering simple personal questions (e.g. name, age etc)	3	3
Poor use of sentences or expression	4	7
Difficulty naming or identifying objects and/or actions Difficulty	4	7
with social communication	5	5
Difficulty with phonological awareness tasks such as rhyming	6	4
Difficulty learning to read	7	2
Difficulty learning to spell	7	6
Difficulty with written language	8	8
Short attention span	9	11
Behavioural problems	9	11
Poor performance in an in-class assessment	10	12
Completing tasks in a set time frame	11	13
Previous speech therapy	12	10

**SP denotes speech pathologist, T denotes teacher*

4.4 Open-ended questions. There were three open-ended questions that both groups of participants were asked to answer about the referral process (Appendix H and I). Through looking at the responses to each question, key themes emerged, which were then used to create coded categories in order to analyse the data.

4.4.1 The referral process. *Speech pathologists.* In response to an open-ended question asking participants what they believed the referral process of students to speech pathologists was, there were some components that were frequently identified

by speech pathologists (n=42). These were: the teacher being the first to identify the language or communication issue; discussions with parents; and the involvement of a learning support team or teacher.

In 76.20% (19) of responses the teacher was acknowledged as the first person to identify a language or communication difficulty and begin the referral pathway. Another component in the process that was highly cited by participants was a discussion with the child's parents before the referral was made, which was recorded by 45.24% (19) of speech pathologists. The same proportion (45.24%) of speech pathologists also included a component where the student saw a speech pathologist outside of school.

The involvement of other people besides the classroom teacher was discussed, with 23.81% (10) noting the involvement of a learning support team or teacher, and an additional 4.76% (2) mentioning the involvement of the school counsellor. Some of this involvement was cited as being through the use of assessments or screeners, identified by 19.05% (8), or through informal discussions with the classroom teacher.

4.4.1.2 Teachers. The main components of the process discussed by teachers were: the classroom teacher being the first to identify the language or communication issue; the involvement of a learning support team or teacher; and the child seeing a speech pathologist outside of school and the involvement of parents.

Firstly, similarly to the speech pathologist responses, in 92.5% (37) of the responses (n=40) the classroom teacher was the first person to identify a language and communication difficulty in a student and start the process of referral. In 75% (30) of responses, the referral went to a learning support team or teacher. Once received by the learning support team or teacher, it was either actioned through screeners/assessments, 27.5% (11), or discussed with other teachers to determine the next step. In 40% (16) of cases, this next step was for the

parents to take their child to see a speech pathologist outside of school. Other next steps included the learning support team withdrawing the student for small group support or observing the student in class.

Teachers' responses to this question suggest that there was variation not in the extent to which referrals to speech pathologists are made but in the order of the steps followed in this process. Discussions with parents were commonly cited as a part of the referral process, being mentioned in 75% (30) of responses. In 47.5% (19) of these responses, the discussions with parents were to happen before the referral to a speech pathologist or learning support team/teacher, with 27.5% (11) of these discussions to happen after a referral had already been made.

4.4.1.3 Comparison. The key elements in the referral process that were identified by both groups of participants and the frequency that they were mentioned by either group are shown in Table 9. The *'involvement of learning support team or teacher'* was the step with the greatest difference between the groups, with 75% (30) of teachers but only 23.81% (10) of speech pathologists including it as part of the referral process. Similar proportions of participants identified the other elements in the referral process, except for *'discussion with parents after referral is made'*, which was included by 27.50% (11) of teachers but only 2.38% (1) of speech pathologists.

Table 9: *Comparison between teachers and speech pathologists of steps in the referral process.*

	Teacher respondents (n=40)	Speech pathologist respondents (n=42)
Teacher identifies language and communication difficulties	75.00%	76.20%
Involvement of learning support team or		

teacher	75.00%	23.81%
Discussion with parents *before* referral is made	47.50%	45.24%
Discussion with parents *after* referral is made	27.50%	2.38%
Seek speech pathologist support outside of school	40.00%	45.24%
Students is given an assessment or screener	27.50%	19.04%

4.4.2 Positives features of the referral process. Both groups of participants were asked what they believed some of the positive aspects of the referral process were. This question received 44 responses from speech pathologists (2 have not been included in the results as they were incomplete) and 42 responses from teachers. A comparison of the positives cited by each group are shown in Table 10; and any comments that were discussed by both groups have been shaded the same. Comments which were only mentioned by one teacher or speech pathologist have not been included.

4.4.2.1 Speech pathologists. The positive features of the referral process cited by participants were: the teacher is the first to identify the language or communication difficulty; opportunities for students to be supported in their speech therapy, such as through the involvement of parents; communication between key stakeholders; and the logistics of the process.

Citing the teacher as the first to identify the language or communication difficulty was identified by 23.80% (10) of respondents. Responses that highlighted the teacher's ability to compare a student with his or her classmates, their knowledge of the child's academic process, the high proportion of time spent with the student, and the ability to observe a child in a variety of circumstances (e.g. social, academic), were included in this category. A similar

category of responses noted that teachers were accurate in their referral decisions, mentioned by 9.52% (4).

Factors that enabled the student to be supported in their speech therapy, for example, through the involvement of the parent in the referral process, were mentioned by 11.90% (5) of participants. For example, one speech pathologist stated that the current referral process encourages parents *"to take an active role in the speech therapy and their child's learning".* The opportunity for teachers to support students' progress in their language and communication difficulties through the referral process was also mentioned by 4.76% (2) of respondents.

Communication between key stakeholders was discussed as a positive of the referral process by 16.67% (7) of participants. This was mostly in regard to teacher communication with speech pathologists (11.90%); however, parents' communication with speech pathologists was cited as positive by 4.76% (2) of respondents.

A final category that speech pathologists viewed as positive was the logistics of the process. This included using assessments,7.14% (3), documentation (4.76%, 2), consistency (4.76%), timely intervention (4.76%), and usefulness of the process in allowing students to get the help they need (7.14%).

4.4.2.2 Teachers. The positives of the referral process listed by teachers included: the partnership between learning support teams/teachers and the classroom teacher; and the involvement of parents and the logistical aspects of the process.

The partnership between learning support teams/teachers and the classroom teacher was the most common positive that teachers cited in regard to the current referral process, discussed by 40.48% (17) of respondents. Included in this theme/category were responses that

referred to the benefits of having more people involved in the decision, opportunities to informally discuss students with learning support teachers, a *"team approach"*, and shared accountability. Other participants, 11.90% (5), thought that it was beneficial that the process began with the classroom teacher, as the teacher is the person who, as one participant put it, *"knows the child the most".*

Parent involvement was discussed positively in regard to the referral process by 16.67% (7). Some linked this to the need for parents to take ownership of sourcing assistance for their child, as is the case when students must see speech pathologists outside of school. Others highlighted how the process can help parents to become better informed about what is happening with their child and where their child is experiencing difficulty, for example, *"show parents that they actually have a speech delay not just that they 'talk different'".*

Similar to the speech pathologist responses, some logistical aspects of the process, such as having a referral form, were cited by participants as being beneficial, discussed by 23.80% (10) of teacher respondents. This included the documentation through the referral form, leaving a *"paper trail",* assessments, and data collection. Some participants, 9.52% (4), also mentioned that the process allowed for early intervention or detection of language and communication difficulties.

Table 10: *Comparison between speech pathologists and teacher views on the positives of the current referral process.*

Speech Pathologists (n=42)		Teachers (n=42)	
Comment	Percentage	Comment	Percentage
Teacher as first identifier	23.80%	Learning support involvement	40.48%
Parents are involved	11.90%	Parents are involved	16.67%
Improves T to SP communication	11.90%	Teacher as first identifier	11.90%
Teachers are good at identifying problems	9.52%	Process is documented	11.90%

Assessments are used	7.14%	Screeners or assessments are used	11.90%
There is a referral process	7.14%	Students can be detected early	9.52%
Teachers support work given to students by SP	4.76%	There is a referral process	2.38%
Process is consistent	4.76%	Creates a relationship between T and SP	2.38%
Links with educational outcomes	4.76%		
Process is documented	4.76%		

4.4.3 Improvements needed in the referral process. Speech pathologist and teacher respondents were asked to suggest any improvements to the referral process. There were 42 responses from speech pathologists and 42 from teachers, although 6 of the teacher responses said they were unsure how to improve the process. Table 11 presents a comparison of the ideas suggested by both groups. Ideas mentioned by both are shaded the same colour for ease of reference. Ideas that were only mentioned by one teacher or speech pathologist have not been included.

4.4.3.1 Speech pathologists. The improvements suggested by speech pathologists include: the need for teachers to have a better understanding and ability to identify key indicators; the scope of speech pathologists' practice; increased teacher education or professional development; a simpler system for referrals; more speech pathologists in schools; and routine screeners.

The most identified improvement by speech pathologists, 42.86% (18), was for teachers to have a better understanding and ability to identify key indicators or *"red flags"* to assist them in making the referral decision. Many participants discussed this in terms of when to refer as well as what to refer for. Of those who cited teacher knowledge as a needed

improvement, 9.52% (4) mentioned the inclusion or development of a checklist to assist teachers in identifying language and communication problems.

Increasing teacher understanding of the scope of speech pathologists' practice was also mentioned as a needed improvement by some participants, 26.19% (11). One respondent stated that there should be *"continued information being provided regarding what a speech pathologist does and how they can support students*". This was supported by responses that highlighted the limitations to what teachers believe speech pathologists can help with, for example, *"increased awareness that SP do not just treat articulation"*.

Alongside this, 30.95% SLPs (13) thought there should be increased teacher education or professional development in regard to when to refer or what to look out for. This category included responses that mentioned: educating about age-appropriate norms, phonics, and shared terminology; and supporting students with language difficulties. One participant said: *"More PD opportunities should be provided in the schools where teachers can be addressed by speech therapists who specialise in literacy. This will equip teachers to make appropriate and timely referrals."* It was also suggested for teachers to have more input from speech pathologists in their undergraduate teacher training.

Some other improvements that were suggested by speech pathologists include the need for a more direct and simple system for referrals, mentioned by 14.29% (6) of participants. The large amount of time required from teachers in the current referral process was discussed as a motivator for this simplification: *"it can be too much work/too time consuming for teachers so only the most severe students get referred and less severe students overlooked - process needs to be simple and not take too long to complete".* This was supported by other comments from participants regarding the need for a more consistent

referral system across schools in NSW; with some, 7.14% (3), suggesting that a teacher should be able to refer directly to a speech pathologist. However, a greater proportion, 16.67% (7), of respondents thought it would be best if there were more speech pathologists in schools. This suggestion was linked to the convenience of accessing a speech pathologist within school hours, as well as to allowing for different perspectives on a students' progress through a *"multidisciplinary team of professionals/educators".*

A final improvement that was suggested by 11.90% (5) of participants was to have more routine screeners of students in their first year of school. One respondent said it would be useful to have "*a standardised screening based on risk factors/indicators for concern developed by speech pathologists*"

4.4.3.2 Teachers. The four main types of improvement respondents suggested were: on-site speech pathologists; parent involvement; decreasing the cost of therapy; and more resources when making the referral decision. The most common suggestion was for there to be a speech pathologist in every school or greater access to speech pathology services, which was mentioned by 21.43% (9) of participant responses to this question and a further 20% of participants who were adding 'other comments' (n=20). Having an on-site speech pathologist was described as a positive way to assist teachers in making the referral decision and allow greater student access to speech pathologist services, with one participant explaining:

> "*It is hard that it is often up to the parents to get their child to therapy outside of school hours at a different location. This makes it logistically a lot more difficult than when schools have their own speech pathologist.*"

Parent involvement was recommended by a high proportion of participants, with 11.90% (5) of respondents to the improvements question and an additional 25% (5) who were adding 'other comments'. Some participants cited the challenge of parents not acting on the

referral recommendation. Some (11.90%) noted that this is often because the cost of therapy is too expensive for some families: *"Not all parents seek assessment or therapy due to cost"*; with one participant suggesting that speech therapy should be completely government funded.

A proportion, 30.95% (13), of respondents suggested that there should be more resources to help teachers identify at-risk students, such as checklists, screeners and assessments. This was discussed as being beneficial for teachers when communicating a child's difficulties to their parents, for example: "*Having the ability to screen a child allows teachers to suggest the assessment to parents with confidence".* Professional development was another improvement, 7.14% (3) of teachers suggesting that it could help them identify students for referral and improve the referral process, for example: *"Teacher PD to know how to identify and also provide strategies that will allow classroom teachers to work alongside parents and students with speech therapy."*

The length of time it takes from initial referral to therapy was another area needing improvement which was discussed by 11.90% (5) of participants, described currently as a *"slow process"*. Two participants suggested that an online referral process could save teachers time filling out paperwork and allow students faster access to therapy. Others (4.76%) also thought that, even once students got through the referral process and were accessing speech therapy, the amount of time they were allocated was not sufficient, one participant commenting that, at their current school, "*children who require on going speech sessions only receive 2 x 15-minute therapy sessions per term."*

Table 11: *Suggested improvements to the referral process*

Speech Pathologists (n=42)		Teachers (n=42)	
Comment	Percentage	Comment	Percentage
Teachers understand indicators for referrals and when to refer	33.33%	Speech pathologists in schools	21.43%

PD for teachers	30.95%	Screeners and assessments utilised more	21.43%
Teachers understand the role of speech pathologists	26.19%	More affordable	14.29%
Speech pathologists in schools	16.67%	Increased parent involvement	11.90%
A simple, consistent referral system is developed	14.29%	Faster processing	11.90%
Screeners utilised more	11.90%	Checklists for teachers	9.52%
Checklists for teachers	9.52%	PD for teachers	7.14%
Teachers refer directly to speech pathologists (as opposed to learning support team)	7.14%	A simple, consistent referral system is developed	7.14%
Parents understand speech pathology	4.76%	Online referral system	4.76%
Better documentation to speech pathologists	4.76%	Students have more therapy time with speech pathologist	4.76%
Teachers better understand the referral process	4.76%	Principal and other teachers are involved in the referral	4.76%

4.5 Interviews The surveys gave respondents the opportunity to discuss the referral process in their current context, including their experience and ideas about possible improvements to it. All survey participants were invited to participate in the interview aspect of the research. Interviews were completed with six practising speech pathologists, three of these over the phone and three face-to-face. Five teachers were also interviewed, with all but one of these being over the phone and one face-to-face. The interviewees will be referred to as either TI (teacher interviewee) or SLPI (speech-language pathologist interviewee), and have been given a coded number to protect their privacy.

4.5.1 Speech Pathologist interviews. Some commonalities between the responses were that all respondents recognised the teacher as the first person to identify a language and communication problem, and to start the referral process, albeit through formal or informal pathways. All but one speech pathologist thought that teachers had hesitation in referring a student to a speech pathologist. All interviewees discussed professional development as a means of educating teachers about the referral process as well as about the scope of what speech pathologists do. This was usually in reference to comments about teachers not knowing what speech pathologists could help with or their scope of expertise.

In regard to the number of students who are referred, most interviewees thought that students were under-referred. This may be a reflection of other themes that emerged, including: the limited time speech pathologists have at each school; full caseloads; the high cost of therapy; and the difficulty faced by teachers in finding the time to fill out paper referral forms and to attend learning support committee meetings.

Other key themes that emerged included the importance of parental consent and involvement, the indicators used for referrals – mostly speech sounds, literacy and

comparisons between students – and the turn-around time from referral to therapy, which appears to vary greatly between schools (e.g. 2 weeks to 2 terms).

4.5.2 Teacher interviews. The teachers interviewed worked at both independent and public schools. Three of the participants' schools had a speech pathologist working onsite for at least one day per week. Of these three speech pathologists, two were parent funded and one was employed by the school.

Many teachers discussed the benefit of having an on-site speech pathologist, as it could give them opportunities to have informal discussions about their concerns or observations of students, before making a formal referral through a referral form and learning support team. The need for screening of students was another theme that emerged in almost all interviews with teachers, either citing experience with screeners as a positive or discussing screeners as a way the process could be improved.

Teacher responses were mixed in whether they had hesitation in referring a student to a speech pathologist, with some acknowledging the financial and logistical burden it may place on parents, while others saw it as a proactive step to support their students. This variation between respondents was also evident in whether they thought students were under- or over-referred, with most saying they thought students were under-referred, while others thought it depended on the teacher doing the referring.

The indicators used for referral discussed by interviewees were mostly in regard to speech sounds such as pronunciation and mouth movements. Many teachers thought there should be more professional development available to them on what indicators to look for when referring a student. Another improvement that was discussed was for speech pathologists to be more proactively engaged in schools so that teachers could discuss their

concerns and so they had clear pathways for parents if the latter were seeking additional assistance.

4.6 Chapter Summary.

This chapter has presented the findings of the present study. Both groups of participants – teachers and SLPs - voiced their dissatisfaction with the referral process, and provided similar suggestions for improving it. These included having on-site SLPs in schools, increased teacher use of assessment tools (such as screeners), and professional development for teachers. Teachers' and SLPs' ratings of the importance of indicators used for identifying children with SLCN in the first year of school, however diverged. In particular, the majority of SLP participants rated the indicators *'difficulty following instructions', 'poor use of sentences or expression', 'difficulty naming or identifying objects and/or actions'* and *'difficulty learning to read'* as important to very important, but many teacher participants did not. The following chapter will provide a discussion of these findings.

5. Discussion

Through the use of two surveys – one for teachers and one for SLPs – and interviews with some of these survey respondents, this study addressed the following research questions:

1. In what ways can the referral of students by teachers to SLPs be improved as suggested by teachers and SLPs?
2. What importance do teachers versus SLPs assign to indicators used for identifying children with SLCN in the first year of school?

The results highlight the differences in the importance that teachers and SLPs assign to various indicators of SLCN, and the challenges faced by teachers in identifying SLCN in the first year of school. The main area for improvement discussed by the informants was the need for increased student access to SLP services in general, and for more adequate provisions in regard to allocated time, wait times, and cost of therapy in particular. Participants suggested that this could occur through affordable access to on-site SLPs. Other suggested improvements included: professional development for teachers regarding indicators for referral and the role of the SLP; as well as increased parent involvement.

5.1 Research Question 1: In what ways can the referral of students by teachers to SLPs be improved as suggested by teachers and SLPs?

The process of referral of students with SLCN was described similarly by teachers and SLPs in this study. The similarities included the teacher being the first to identify a child with a suspected SLCN and initiate the referral process, the need for parent involvement, the outsourcing of speech therapy, and the involvement of other professionals (Table 9).

Despite the survey data revealing clear similarities between teachers in schools in NSW, information regarding referral processes is sparse, in both the literature and publicly

available information. For example, of the 113 results for the search term ‘referral’ on the NSW Department of Education and Communities’ website, none discussed the referral of students to a learning support team or SLP for SLCN, and only one mentioned a referral to a learning support team.

Despite some similarities, it appears that confusion in the referral process exists, especially for SLPs. To illustrate, while 75.00% of teachers referred to the involvement of a learning support team, this was only mentioned in 23.81% of the SLP surveys. This is understandable given that, for the most part, SLPs are external to the school. Although teachers in this study presented a relatively consistent understanding of the referral process, Baxter, Brookes, Bianchi, Rashid and Hay (2009) previously found that only 38% of teaching staff were unsure how to refer a child to or contact a SLP. Findings from the present study suggest that this is the impression given to speech-language pathologist interviewees (SLPIs), too: *“some teachers aren’t sure of the process”* SLPI 2; or *“clarification of the process – having everyone understand”* SLPI 4.

However, the teachers themselves did not echo these same concerns regarding their understanding of the referral process. It may be that SLPs assume that teachers are confused by the referral process, or specifically how to begin the process, based on teachers’ hesitations in identifying, under-identification of students, or tendency to have informal conversations with SLPs (if available) before referring a child (all findings of the present study). These factors relate more to teachers’ limited understanding of the indicators for referral than to the process itself. It is important that both the referral process, and the indicators for referral, are clarified in schools to ensure that children in the first year of school with SLCN receive the support they need.

As well as perceived confusion about the referral process, it was identified as an area of dissatisfaction for both teachers and SLPs in this study. This was described as being due to the shortage and inadequacy of SLP services available to children experiencing SLCN. To date, there is no other research known by the author that examines teachers' and SLPs' perspectives on the referral processes. This is recommended as an area for future research: in particular, it would be beneficial to compare the referral processes in different Australian states and territories, as well as those used in Australia, with those common in other countries.

Some of the problems in the current referral process were discussed by participants constructively as areas that could be improved. These included children needing more frequent sessions with SLPs, ensuring the session length was adequate to support the student, and making therapy more affordable for families. Other improvements proposed by participants were increased parent involvement, and more professional development for teachers in identifying SLCN and when to refer to a SLP.

5.1.1 Students need more adequate access to SLP services. Common barriers to children receiving the speech pathology that they need appear to come from overarching limitations placed on SLPs' resources. TI 3 stated, *"there's not enough people to fill the gaps and fill the need"*, which reflects McLaughlin, Lincoln and Adamson's (2008) finding that there are SLP shortages in NSW. McLeod, Press and Phelan (2010) similarly found that, across Australia, access to specialist services, including speech pathology, accounted for 23% of complaints. In the United Kingdom, Law et al. (2002) discussed insufficient funding for SLPs in schools as a key reason to explain why children's SLCN may remain unaddressed.

Related barriers include short or infrequent session times with on-site SLPs, long wait times between initial referral, assessment or therapy, and high cost of service (as discussed in Chapter 2, Section 2.2).

5.1.1.1 Students need longer therapy sessions with SLPs. Both teachers and SLPs in this study were concerned about the limited duration and frequency of school-based SLP sessions. One teacher complained that *"children who require on going speech sessions only receive 2 x 15-minute therapy sessions per term."* This is substantially shorter than the recommended time of 30-60 minutes per week that is used in Canada, the UK and Europe (Ruggero et al, 2012).

Another SLP survey participant had only 15 hours per week in which to see all the children needing assistance in one school, and SLPI 2 worked across four schools each week. This is supported by Dockrell and Lindsay (2001), who found that time pressure and infrequent therapy sessions were common in SLPs working with children – a finding that suggests that little has changed in this area.

The implication, as TI 3 explained, is that *"Major speech difficulties get help but the minors and even the mediums don't"*. SLPI 4 had similar concerns: *"If we get a large number of referrals it's hard to prioritise".* This finding aligns with research showing that SLPs are often burdened with large caseloads (Kaegi et al., 2002). This is particularly concerning given research by Brandel and Loeb (2011), who found that, the higher an SLP's caseload, the more likely it was for pre-schoolers to receive group (rather than individual) therapy, or for their therapy to be less intense.

5.1.1.2 Students need to have shorter wait times between referral, assessment and therapy. A long wait time between referral, initial assessment and ongoing therapy emerged as an area of concern in the interviews and responses to open-ended survey questions.

Conducting an initial assessment is vital for SLPs to appropriately understand a child's SLCN. The length of time between initial referral to therapy was an area identified for improvement discussed by 11.90% of SLP survey participant, and also by SLP interviewees:

> "*The wait time would be different at some schools – [a] short time would be 2-3 weeks after assessment. [They] might we waiting for 2 terms.*" (SLPI 2)
>
> *"People know that I'm busy so they don't refer and I have children where I'm actually really, really, really worried about that kid and they've known for a year or so and I haven't found out."* (SLPI 3)

Studies have reported children waiting up to 6 months or longer for an initial assessment by a SLP (Ruggero et al., 2012; O'Callaghan et al., 2005). This is concerning given the importance of early intervention for successfully supporting children's SLCN (France Freiberg & Homel, 2010). Evidence suggests that children with SLCN should (in general) be receiving at least one individual session with a SLP a week (Baker & McLeod, 2011; Law, Garrett, & Nye, 2004). A 6-month delay could result in 26 missed sessions of therapy, and may cause other problems due to the logistical difficulties of booking appointments so far in advance. Children in such circumstances are disadvantaged due to the extensive impact of SLCN. It is imperative that students gain access to SLP services as quickly as possible, and for these services to be long enough and regular enough for students to progress.

5.1.1.3 SLP services need to be more affordable for families. The cost of student sessions with SLPs has been described as expensive and prohibitive (Senate Community Affairs Committee References Committee, 2014). This means that there is a large financial burden placed on families who need to see SLPs for their child's SLCN. This theme was highlighted by both teacher and SLP participants, in both the surveys and interviews:

> *"I know how much it costs for them to then have follow up testing and especially in children when there's a few different issues going on you don't want to recommend a speech therapist if then they pay all this money to have a test and there's not a problem and you've almost misdiagnosed." (TI 5)*

> *"There's a cost factor – ideally if this were a service that was offered more in the school would be more achievable for parents." (SLPI 5)*

There are Medicare rebates for speech pathology available which may ease some teacher hesitations, as TI 4 explained: *"[I have] less hesitancies knowing about the allied health Medicare scheme, not feeling like I'm putting parents out for a big financial burden".* However, while it is positive that there is some financial support for children and families, the Medicare rebates appear to be far from enough to adequately assist children with SLCN. For example, the Chronic Disease Management program, a rebate used for most children with SLCN, gives those who qualify only five individual therapy sessions (Department of Health, 2014).

Associated with the cost of therapy is a concern about the ethics of external speech pathology practices promoting their services within schools, which was expressed by two of the teachers interviewed for this project (TIs 2 and 3). This concern too could be alleviated by government-funded, on-site SLPs.

5.1.2 On-site SLPs could improve children's access to speech pathology services.

SLPs are most commonly employed by Health Departments and are rarely employed by schools (Health Workforce Australia, 2014). Reflecting this state of affairs, 65.96% of teachers in this study stated that there was not an SLP working at their school. Onsite SLPs or increased student access to SLP services were mentioned by 30.95% of teachers, and 16.67% of SLP survey respondents.

The presence of an SLP in the school setting has been shown to have positive implications for teachers and students alike, as discussed by TI 4: *"if I had my way each school in Australia would have a SLP working at it because of what they can bring to early language acquisition and all the developing needs that children have".* Survey and interview

participants described the absence of SLPs in their school negatively, both in terms of their own professional access as well as the students' access to SLP services.

5.1.2.1 Teachers' self-reported knowledge improved through conversations with on-site SLPs.

In both the survey and interviews, teachers and SLPs alike discussed the informal conversations about students that occur when there is a SLP on-site in positive terms, as the following interview statements illustrate:

> *"working in the schools, having those informal contacts is really valuable in building their [teachers'] capacity to identify and support students in the future and understanding our area of expertise and even what students we can help with… Wouldn't be the same scope if we were based somewhere else".* (SLPI 4)
>
> *"I liked that I could have informal conversations before having to formally lodge something, the SLP was happy to swing past the classroom to listen/look before it having to escalate. It gave me confidence that I wasn't over-referring."* (TI 4).

It appears that the teachers valued these conversations because they allowed them to express their concerns to a SLP before starting the formal referral process. It also meant that they felt more confident in their decision to refer, once that was necessary, as they had the support of the SLP. From the SLPs' perspective, these conversations were beneficial as they allowed them to assist the teachers and students without adding clients to their stretched caseload.

This thesis can support the findings by Law et al.'s (2000) that when SLPs spent more time at school, there were greater engagement opportunities and incidental liaisons between teachers and SLPs. Similarly, Prelock (2000) discussed the inclusion of SLPs in schools as a means for allowing the two professions to exchange their knowledge in order to more effectively support children with SLCN. Conversely, Glover et al. (2015) found that not having an SLP working on-site was reported by both teachers and SLPs as a major barrier to effective teamwork and collaboration.

5.1.2.2 Logistically it is easier for students to access SLPs when they are on-site.

The time and effort required to take a child to see a SLP at a separate location, before or after school, should not be underestimated. TI 3 discussed the difficulty of students seeing SLPs outside of school time, saying that it *"creates another barrier, at school it's convenient".* Having an on-site SLP was described as a positive way to allow students with SLCN access to therapy, with one teacher survey participant explaining:

> "*It is hard that it is often up to the parents to get their child to therapy outside of school hours at a different location. This makes it logistically a lot more difficult than when schools have their own speech pathologist*".

This thesis therefore supports Ruggero et al. (2012), who found that parents believed that onsite SLPs could be a solution to barriers in service delivery in Australia.

5.1.3 Professional development. Pre-service and in-service training for teachers was a theme that was discussed by both teachers and SLPs as an area of improvement. A total of 30.95% of the surveyed SLPs thought that there should be increased teacher education or professional development (PD) in regard to when to refer or what indicators to use. This was also mentioned by 7.13% of teacher respondents to the survey.

A significant finding from the present study was that those who had engaged with inservice PD opportunities perceived that they had more experience in taking action on a child's SLCN. It was found that 96% of teachers with PD had referred a child to SLP, whereas only 64% of teachers who had not received PD had this experience. This finding aligns with previous studies that have attributed teachers' difficulties in identifying SLCN to the lack of preservice or in-service training in this area (Dockrell & Lindsay, 2001; Sadler, 2005).

The finding that PD is perceived to assist teachers to make referrals to SLPs is supported by other studies showing the effectiveness of PD for teachers. Girolametto,

Weitzman, Lefebvre and Greenberg (2007), investigated the feasibility of a two-day, in-service program for teachers, provided by SLPs, on emergent literacy strategies. While this area is not specific to SLCN, there are many links between the two, and the involvement of SLPs is particularly relevant to the present study. They found that the experimental group modified their language to reference more abstract concepts than the control group, and concluded that SLPs can work effectively with teachers through PD opportunities.

Similarly, Snow et al. (2014) studied the effectiveness of a six-day professional development course for teachers and principals which aimed to improve students' oral language skills and early literacy in the first two years of school. Their findings showed student improvements in oral language and reading measures at the research schools, when compared with the control schools' scores.

5.1.4 Parents play a vital role in the process The role of the parent was discussed by both teachers and SLPs in the interviews and surveys. In describing the steps of the referral process, 40% of teachers included parents taking their child to see a SLP outside of school, and 75% described a discussion with parents as part of the referral process. There were two areas of improvement that were suggested by both groups of participants: the first was for parents to follow through on teachers' referrals for children to see SLPs; the second was for parents to be actively involved in supporting their child's speech therapy.

5.1.4.1 Parents are the ones who 'make the move', they choose to take their child to a SLP or not. A frustration that was expressed by many teachers was their lack of power in ensuring that a child sees an off-site SLP, as ultimately this was the responsibility of the parent. TI 2 described this as a weakness in the process, *"Once a child was referred it was out of our hands"*. One survey participant even went as far as suggesting that principals should call parents and name their inaction as "*emotional neglect*" in order to persuade them to follow through on the teacher's recommendation to see a SLP.

Participants were not asked directly what the barriers to parents taking their child to speech pathology were; however, some were described by participants and in the literature. Cost was mentioned by 11.90% of the surveyed teachers as a barrier, as it is seen as too expensive for some families. Other barriers that have been reported in the literature are a lack of awareness about services, lack of services, long waiting lists (O'Callaghan et al., 2005), parents waiting to see if the problem persists before seeking help (Glogowska & Campbell, 2004; Skeat, Eadie, Ukoumunne & Reilly, 2010), and parents only seeking support for more obvious problems such as speech intelligibility (Skeat et al, 2010). The barriers that prevent parents from taking their child to see a SLP, and the means for assisting parents to overcome these barriers, should be examined in future research. One suggested means for improving this issue is through parent education (McAllister et al., 2011; Skeat et al., 2010; Glover et al., 2015).

5.1.4.2 Parents play a vital role in assisting their child outside of therapy or school time and should therefore be involved as much as possible. The involvement of parents in the referral process was mentioned positively by 16.67% of teachers and 11.90% of SLPs in the surveys. For example, one SLP stated that the current referral process encourages parents *"to take an active role in the speech therapy and their child's learning".* Pappas, McLeod, McAllister and McKinnon (2008) found that 98% of SLPs agreed that the involvement of parents was essential for speech therapy to be effective.

Future research should look at the best methods for involving parents in speech therapy when their child is attending a school SLP. This is suggested after reflecting on the emphasis that participants in the present study placed on having an on-site SLP, and on Pappas et al.'s (2008) finding that parent involvement was reported to be particularly difficult for SLPs working in the school system, many citing time constraint as a reason for limited communication with parents.

5.2 Research question 2: What importance do teachers versus SLPs assign to indicators used for identifying children with SLCN in the first year of school?

5.2.1 The classroom teacher is responsible for identifying student SLCN. The classroom teacher is almost always the first to identify a student at school with a language and communication problem, and to begin the referral process. Over 97% of teacher participants in this study confirmed this, with only one respondent stating that it was the parents' responsibility. Sadler (2005) said, similarly, that *"identifying and meeting the needs of pupils with speech, SLCN has become increasingly the responsibility of mainstream teachers"* (p. 147). Gerber and Semmel (1984) argued that teachers should be treated as 'tests' of students, in the same way that formal language screeners or assessments are, because teachers spend considerable time observing students' behaviour and learning, and work with large numbers of students across their career. This means that teachers have a unique responsibility for children's language and communication development; which has implications for their training and professional development.

However, teachers with training in identifying complex student learning difficulties are rare (Campbell, 2003). Teacher interviews conducted for this project support this, with half of the interviewees stating that they had hesitation in referring students to SLPs. TI 2 stated: *"I would have hesitations because I'm not a medical practitioner of any kind… so I give them my point of view as an educator but I wouldn't' feel confident to say yes they definitely do".* Without adequate training to accurately identify students with SLCN, many teachers feel inadequate in their knowledge, skills and experience regarding the referral of students to SLPs (Antoniazzi et al., 2010). This is further supported by teacher comments in Dockrell and Howell (2015), where difficulty in identifying SLCN was cited as a common barrier for participants (studying a Master's degree in special education), reported by working

with these children. If prospective teachers who are training specifically in the area of special education have difficulty in identifying children with SLCN, then this identification is likely to be even more difficult for teachers without such training.

A related challenge is the need for teachers to refer to the correct specialist (Campbell, 2003). One of the surveyed teachers in the present study noted:

> *"It is very hard for teachers to know exactly what to look out for and what is developmentally appropriate. Not to mention they are having to look out for lots of other development issues in other areas e.g. do they need to see a counsellor, occupational therapist etc."*

This means that teachers need not only to be able to identify markers of children's SLCN but also to accurately interpret these children as needing assistance from an external professional, specifically a SLP.

Despite the difficulty faced by teachers in identifying SLCN, teacher referrals for SLCN have a high degree of accuracy. In this study, 62.75% of SLP survey respondents indicated that 75% or more of the children referred by teachers need to see a SLP. This suggests that teachers can identify at least some SLCN, but it is not clear whether they are able to identify all conditions. It may be that teachers are able to identify the more obvious speech disorders or articulation problems but do not refer conditions that present less visibly. This study also found that teachers had hesitation in referring, and that both teachers and SLPs thought that teachers under-referred students. This, therefore, may mean that many children with SLCN in the critical period of the first year of school are not being identified or referred by teachers.

Differences in teacher's ability to identify the full range of SLCN have been shown in the literature. In a foundational study in this area, teachers missed 42.7% of speech and language difficulties identified by an SLP, and of the difficulties teachers did identify, 81.6%

were students with severe problems (e.g. these children made four or more sound errors when responding to simple personal questions) (Diehl and Stinnett, 1959). Given the much broader scope of SLP today, almost 60 years since that study, the difficulties that teachers experience in identifying the presence and severity of SLCN are likely to be higher.

More recent studies have also shown gaps in teacher's identification of various types of language needs. Botting, Conti-Ramsden and Crutchley (1997) found that teachers could identify difficulties with articulation, phonology and syntax/morphology more easily than semantic/pragmatic language impairments. Jessup et al. (2008) also found the accuracy of initial teacher identification of students with speech and language difficulties to be quite high, with 86.4% identification for speech and 71% for language impairment. However, one year later, 50% of students with speech impairments and 85% of students with language impairments were still not recorded by teachers. These earlier studies point to the importance of extending the focus of the present research to consider the nature of the actual referrals, in terms of type and severity, alongside the indicators used by teachers and SLPs.

Future research is needed to explore actual teacher referrals of students in the first year of school, the types of SLCN they identify, and how severe the conditions are. This would allow researchers to gauge the appropriateness of the referrals and to assess whether particular SLCN are being missed or are more readily referred by teachers than others are.

5.2.2 Teachers and SLPs consider different indicators important to refer.

Teachers and SLP participants in this study placed different importance ratings on the indicators to refer children for SLCN. For example, the indicator, *'difficulty following instructions'*, was rated as 'very important' by the greatest number of SLPs (56.86%), yet ranked only 9th in importance for teachers (with 30.30% rating it as 'very important').

Another major discrepancy was between the indicators, '*poor use of sentences or expression'* and '*difficulty naming or identifying objects and/or actions'*, which was rated 4th most important in the SLP survey results and 7th in the teacher survey. Furthermore, when the ranked order of importance of the indicators was compared, only three indicators (namely '*difficulty answering simple personal questions', 'difficulty with social communication' and 'difficulty with written language'*), had the same ranking between the two groups.

While no other study known to the researcher has compared the rating of SLCN indicators by teachers versus SLPs, the findings of this study and previous research literature offer five possible explanations for the differences in their ranking of indicators.

5.2.2.1 Different professional contexts Firstly, some of these differences may be due to the different contexts in which the two groups of professionals work, making some indicators more apparent or important than others. For example, the indicator, *'difficulty learning to read'*, was rated as very important by 57.58% of teachers but by only 33.33% of SLPs. This may be because a child's reading progress is more noticeable to teachers who are working on these skills and programs each day. The importance of the professionals' context in identifying SLCN in children is supported by evidence showing incongruity between other professional opinions of children's SLCN, including educational psychologists and SLPs (Dockrell et al., 1997). However, the difference in professional context cannot explain all differences in the rating of indicators, for it can be assumed that *'difficulty following instructions'* would be very apparent in the classroom environment and consequently important for teachers, yet more SLPs (56.86%) and fewer teachers (30.30%) rated this as 'very important'.

It is also important to remember that teachers are educators, not SLPs. Their area of training, expertise and practice is in pedagogy and curriculum, not SLCN. It is unrealistic to

expect teachers to have the same level of knowledge of such difficulties as SLPs do. This is also evident when considering the vast scope of developmental problems children may face outside the realm of speech and language, for which teachers also have to potentially refer. These include fine and gross motor skills, psychological difficulties, physical disabilities, and social problems.

5.2.2.2 Teachers' understanding of the scope of SLP practice. A possible explanation for different importance ratings for the indicator *'difficulty following instructions'* and other differences in the importance assigned to SLCN indicators by teachers versus SLPs, may be found in teachers' understanding of the scope of the practice of SLP.

Teachers may believe SLPs to be predominantly concerned with speech production and not receptive language, and therefore may not have considered *'difficulty following instructions'* as an indicator for referral to a SLP. Teachers may also view SLP as concerned primarily with speech and articulation difficulties, as suggested by the finding that the majority of teachers in this study rated the indicators '*difficulty with speech sounds*' and *'difficulty with articulation'* as 'very important'. Indeed, an American Speech-Language-Hearing Association (ASLHA) document outlining the roles and responsibilities of SLPs in schools states: "*It is essential that SLPs' roles and responsibilities be redefined in light of substantive changes that have taken place in schools, as well as in the discipline of speech-language pathology."* (p. 1). This broadening of the scope of SLP, both in and outside of the school context, is also described by Blood, Ridenour, Thomas, Qualls and Hammer (2002) and Ehren and Ehren (2001).

5.2.2.3 Interpretations of indicators. A third reason for differences between teachers' vs. SLP responses may lie in the way each indicator was interpreted by the two groups. To illustrate, for the indicator *'difficulty following instructions'*, the survey did not

specify whether these instructions were given to the child individually or to the whole class, and in what circumstances – for example, noisy versus quiet environment. Individual, verbal instruction is more applicable in the SLPs' context, where they are often working with clients one-on-one, whereas group instruction is more common in the classroom environment. However, difficulty following individual instructions would be seen as a greater problem than difficulty following group instructions. Future research should, therefore, explore whether and how teachers and SLPs differ in their rating of productive versus receptive language indicators, and provide more explicit definitions and examples of the indicators such as those used in the present study, in order to more accurately compare teacher and SLP interpretations and ideas. It would also be beneficial to ask teachers and SLPs to explain *why* they view certain indicators as more important than others.

A further complication in the indicators used by SLPs and teachers alike is the limited research behind them. Some commonly considered markers have little empirical backing, or can be used to indicate a wide range of developmental problems not limited to speech, language and communication (Dockrell, Howell, Leung & Fugard, 2017). Conti-Ramsden et al. (2001) also discuss the lack of attention that has been given to indicators of SLCN for school-aged children, an area that has remained under-researched to date. If the indicators used to identify SLCN have little empirical backing, teachers are even more disadvantaged in fulfilling their responsibility to identify these problems. Future research should look into the most common identifiers for SLCN that would be evident in a classroom context. If communicated with teachers, the findings of such research would assist them to ensure they are accurately referring all students with SLCN in their classroom, and would ultimately ensure that children receive the therapy they need.

5.2.2.4 Teachers' understanding of SLCN. Other differences point to a fourth

explanation: namely, that teachers may have a limited understanding of the range of SLCN children may encounter. This is the case with stuttering: 29.4% of SLP respondents mentioned stuttering as an indicator that they use in addition to those listed in the survey, while no teachers mentioned this indicator. Given that stuttering is estimated to affect 1 in 9 Australian children by age 4 (Senate Community Affairs References Committee, 2014), it is unlikely that teachers have never encountered it. On the other hand, while stuttering may be an area of focus or expertise for the 29.4% of SLPs who referred to it, teachers in this study may have assumed that it was included in one of the broader indicators listed in the survey such as *'difficulty with speech sounds'* or *'difficulty with articulation'*. This difference suggests that some of the SLPs consider stuttering a significant problem, worth being recognised as a separate indicator, whereas teachers trusted the list of indicators presented in the survey. Although stuttering is described as a speech disorder by SPA (2017a), children with this difficulty would present very differently than would children with speech sound or articulation problems. This is evident when looking at the ASLHA's website (2017), where stuttering is listed separately to speech sound and articulation problems, in their list of speech disorders. As the present study is the first to compare the indicators used for the referral decision, future research should give specific examples of behaviours and disorders that would be included for each indicator. It would also be helpful for future researchers to gain a greater understanding of the specialisations of SLP participants.

5.2.2.5 Teachers' awareness of the limited access to SLP available to children.

A final reason for such differences could be teachers' awareness of the limited access children have to SLPs. In the case of stuttering, teachers may not consider this a significant SLCN in the first year of school, but instead see it as related to children's adjustment to their new school environment and a problem that may resolve on its own and unlikely to be

prioritised by SLPs. McKinnon, McLeod and Reilly's (2007) study also found that, although teachers were able to identify some of the children experiencing stuttering, the curriculum adaptations and additional support recommended for these children were not available to them.

Beyond stuttering, teachers' limited knowledge of SLCN in general has been shown in previous literature. Dockrell and Lindsay (2001) conducted semi-structured interviews with teachers (n=69), of which 27% admitted that they had gaps in their understanding of children's SLCN, in regard to the problem, its intervention, and their responsibility. As well as teachers' own admissions, their limited understanding is evidenced in the mismatch in teachers' identification of SLCN when compared to that by SLPs (Dockrell et al., 1997).

5.2.3 Many teachers have hesitation in referring students who need speech therapy. It is not surprising, given teachers' limited understanding of SLCN, that the interviews and surveys from this study found that teachers had hesitation in referring children who they identified as potentially needing speech therapy. The reasons for teachers' hesitation were often described as causes for the under-referral of children, as most TIs and SLPIs thought that students were under-referred to SLPs. For example, SLPI 3 stated: *"when I go into classrooms to see one child I often encounter others who I think would be appropriate for referral"*. The reasons for hesitation included being unsure of what a SLP could work on, unsure in their decision, and unsure about whether the cost of the session would put financial pressure on the family. Among the teacher interviewees, those with more than 5 years' experience were more comfortable referring, stating that they did not have any hesitation. However, the survey data did not show experienced teachers as having significantly more experience with referrals.

An interesting finding, highlighting the possible under-referral of students, was that SLPs often get an influx of referrals *after* the first year of school. These referrals were discussed as occurring when further reading or literacy issues arise that stem from problems that should have been addressed in the first year of school. Two SLPIs mentioned this: SLPI 5 shared that: "*a large number [of students] come to us in year three and there were issues there earlier"*, and SLPI 6 that, *"[it] seems like we get more referrals for Year 1 students because they haven't picked up reading when there would have been red flags in kindergarten"*. This supports previously discussed literature which has found that teachers were unable to identify the full range of children's SLCN (Diehl & Stinnett, 1959; Botting et al., 1997; Jessup et al,

2008). It is also in agreement with Williams (2006), who found that teacher identifications of SLCN in the first year of school were less aligned with formal test outcomes than were those for pre-primary or Year 1 children. This calls for study comparing the differences in referral rates and identifying factors of SLCN between the first year of school and Year 1.

5.2.4 Difficulties faced by teachers in identifying students with SLCN. From the perspectives of the participants in this study, the main difficulties faced by teachers in identifying students with SLCN appear to be: teachers' lack of time and resources to appropriately assess students; and teachers' limited knowledge of what SLPs do.

5.2.4.1 Teachers do not have the time that SLPs do to appropriately assess their students. Of the participants in the SLP survey, 88.24% said that they did assess students in their first year of school. The Clinical Evaluation of Language Fundamentals (CELF-4) was the most common assessment used by SLPs, used by 70.59% of participants. The CELF-4 is a one-on-one assessment that takes 30-60 minutes to administer. While this time allowance and delivery method is completely plausible for SLPs, it is impossible for teachers without

additional resources. Teachers, therefore, cannot gain the same knowledge about their students' SLCN as SLPs do.

An increasingly full curriculum (Stroud, 2017) leaves teachers experiencing immense pressures on their teaching time (Lemaire, 2017). In this environment, it is impossible for teachers to assess students with the time that SLPs have for doing so, limiting teachers' ability to know the extent to which their students may be suffering with SLCN. Even a fiveminute, one-on-one assessment with a student in their first year of school can prove difficult if left to the teacher alone – what do the rest of the class do during this time? How is the teacher able to accurately assess a student when they are responsible for up to 23 other fiveto-six-year-olds at the same time? Without the luxury of focussed assessment time, teachers must make decisions based on their observations, knowledge and experience, causing many to have hesitation in referring.

5.2.4.2 Teachers do not have adequate access to assessment tools when making the referral decision. Even if teachers had time to assess their students' SLCN, evidence presented in this study suggests that they don't have access to the assessment tools (e.g. screeners, individual assessments, checklists) when making the referral decision. A high proportion, 30.95%, of teacher respondents explicitly requested resources (explicitly asking for checklists, screeners or other types of assessment tools) to be made available to help teachers to identify at-risk students. Some SLPs shared this view, with 21.42% suggesting assessment tools for teachers as an improvement to the current referral process. However, choosing an appropriate tool is not as straightforward as it may at first appear.

5.2.4.3 The use of screening tools in the identification of students with SLCN has been shown to have mixed reliability. Screeners are used to quickly determine the likely presence or absence of SLCN (Goulart & Chiari, 2007). Screeners are appealing to teachers, as they

take less time to administer than more formal, comprehensive assessments do. When asked what improvements could be made to the referral process, TI 3 stated: *"More screening should take place"*. Similarly, SLPI 6 suggested the implementation of *"a standardised screening based on risk factors/indicators for concern developed by SLPs"*.

However, teacher ratings using screening assessments have been shown to have limited correspondence with more comprehensive assessments administered by SLPs. In reflecting on the use of screeners, Snowling and Hulme (2012) concluded that screeners are limited in representing students' SLCN, due to variations in children's development. Antoniazzi et al. (2010) found that teachers falsely identified 32 students (n= 149) using the CCC-2. Similarly, disappointing findings for the use of screeners when not delivered by SLPs were reported by Laing, Law, Levin and Logan (2002). They found that the use of a screener and parent concern were both ineffective in identifying children with severe language problems.

In other circumstances, however, teachers who have access to tools for the assessment of children's SLCN have been shown to be able to make accurate judgements. This is evident in the use of the assessment tool, 'Language Link', which was shown to be beneficial in informing teacher's judgements of their students' SLCN in the UK (Snowling, Hulme, Bailey, Stothard, Lindsay, 2011). It appears that more research needs to be done to compare the specificity and sensitivity of a range of assessment tools. This may allow for a recommendation to be made for an identification tool (such as an assessment or screener) that enables teachers to more accurately identify SLCN in their students.

5.2.4.4 Teachers have a limited knowledge of what SLPs do. A key finding from this

study, discussed by both teachers and SLPs, was teachers' limited understanding of the scope of SLPs' practice. This was discussed in 26.19% of the SLP surveys. For example, SLPI 5 stated:

> *"many of them [teachers] don't know that we do literacy, they know that we work with speech sounds and possibly with language but they don't know that speech pathologists can help with the literacy". This was strongly echoed by the teachers, as exemplified by TI 4 expressing "being unsure about what a speech pathologist could work on and how that could be aiding a child".*

A lack of understanding of SLPs' role is understandable, given the relatively recent changes in the discipline of speech pathology. For example, Ukrainetz and Fresquez (2003) comment that the "understandings of both what constitutes language and for what speechlanguage pathologists (SLPs) are responsible have steadily enlarged" (p. 284). Typically, SLPs have been known to work with children to assist their speech sound production, and it appears that this is what teachers understand that SLPs are able to work on. The indicators of SLCN rated as most important for referral to SLPs by the teachers in this study, *'difficulty with speech sounds'* and '*difficulty with articulation'*, evidence this, as they are associated with the more traditional SLP work.

An improvement in teachers' understanding of the role and expertise of SLPs is recommended by SPA in their recent publication, *'Speech Pathology in Schools Resource'* (2017d). This recommendation is supported by the findings of the present study, for if teachers had a better understanding of what SLPs are able to assist children with, they would likely refer children to receive assistance with their SLCN from SLPs more readily.

5.3 Conclusion

This chapter has presented an interpretation of the findings of this study. A major limitation to the provision of support for children with SLCN through the referral process was

found to be inadequate access to SLP services. The suggested improvements to the referral process discussed centred around increasing student access to SLPs through: longer therapy sessions, shorter wait times, and increasing the affordability of SLP sessions. On-site SLPs were discussed as a possible means through which these improvements could be implemented, and were also discussed positively as a way to increase teacher knowledge of SLCN. PD for teachers, both pre-service and in-service, was another suggested improvement to build teachers' knowledge of how to identify SLCN. Finally, the role of the parent was discussed as an important component in ensuring that children receive SLP services and are supported in their therapy.

Teacher perspectives on the importance of the indicators used to identify children with SLCN were compared to those of SLPs, and found to differ from them. Drawing on earlier research, this chapter offered several possible reasons for this incongruity: the different professional contexts in which teachers and SLPs operate; possible differences in the interpretation of indicators listed in the survey; teachers' limited understanding of SLCN and of the scope of the practice of SLP. Teachers' hesitations in referring students with SLCN were also discussed, and interpreted as related to the difficulty in identifying students teachers reported, teachers lack of access to opportunities to assess students one-to-one or the assessment tools available to SLPs, and awareness of the limited access to SLP services available to children in the first year of school. The next chapter provides the conclusion to this thesis.

6. Conclusion

The purpose of this study was to better understand teachers' referral of children with SLCNs to SLPs in the first year of school in NSW. This was achieved through two surveys, for teachers and SLPs, completed by 47 teachers and 56 SLPs, and semi- structured interviews with 5 teachers and 6 SLPs from the survey group. This study affirms previous research in this area, and provides substantial grounds for future research.

This chapter summarises the key findings of the study and their implications for teachers, SLPs and future research. It also outlines the study's contribution to research on teacher-SLP collaboration and the identification of SLCN in children and their referral to SLPs.

6.1 Research Question 1: In what ways can the referral of students by teachers to SLPs be improved as suggested by teachers and SLPs?

Teachers and SLPs in this study discussed the referral of children in the first year of school to SLPs in similar terms. Although there is little publicly available information about this process, both parties agreed on four key components: the teacher was the first to identify a SLCN and start the referral process; the processes needed to involve parents; speech therapy was delivered by SLPs (usually off-site); and the process also included other professionals (such as a learning support team). Teachers appeared to have a clearer understanding of this process than SLPs; and both groups expressed dissatisfaction with the referral process.

The main suggestion both groups made for improving the referral of students with SLCN to SLPs was to provide more adequate access to SLP services. The key barrier to this revealed in the teachers' and SLPs' survey and interview data was the large caseloads of SLPs that work at school. Solutions to these barriers offered by the participants included: increasing

therapy session length, shorter wait times for children to see SLPs, and making SLP services more affordable for families.

The provision of on-site SLP services in schools was another key improvement suggested by many teachers and SLPs in this study. On-site SLP services were evaluated positively in terms of their potential to ensure better access to SLP services for students. Another benefit that participants in this study referred to was the opportunity that formal and incidental conversations with on-site SLPs offered teachers to further their knowledge of SLCNs and of SLPs' practice. On-site SLPs also allow the two professions to come together to share knowledge and work as a team in assisting children with SLCN (Prelock, 2000; Glover et al., 2015).

Professional development (PD) for teachers, both pre-service and in-service, was another area highlighted as a means for improving the referral process. Equipping teachers specifically with knowledge of the indicators of SLCN is essential in assisting them to detect children with SLCN (Dockrell & Lindsay, 2001; Sadler, 2005).

A final area for improvement that the participants suggested was the need for increased involvement of parents in the referral process. This was discussed mostly in terms of the responsibility of parents to follow through on the teacher's referral for their child to see a SLP, as the teachers and SLPs have no ability to ensure that this occurs. The participants in this study also shared the view that parents must be actively involved in their children's speech therapy, which previous research has argued is essential for therapy to be effective (Pappas et al., 2008).

6.1.1 Implications for teachers. Teachers are in a difficult position, because they bear central responsibility for referring children with SLCN to SLPs, yet lack the training to accurately identify all of these students. The three main implications for teachers from the

findings of this study are to: undertake professional development, advocate for the involvement of SLPs in supporting children with SLCN, and encourage parents to follow through on referral recommendations.

Professional development (PD) for teachers is, therefore, essential, and a key recommendation from this study. In particular, teachers should undertake PD that focuses on assisting them in identifying children with SLCN. PD for teachers regarding SLCN should give them enough time to grasp the content (Moats, 2009) and have practical applications to their role. Ideally, this PD would be undertaken towards the start of the school year, so that children with SLCN in the first year of school are identified and referred to receive support from SLPs as soon as possible.

Although there is little that teachers can do to directly improve student access to SLP services, they can advocate for the involvement of SLPs within their schools. Teachers are in a position where they are able to discuss their concerns about students' lack of access to SLPs with their supervisors and principals. Educators in these positions have more leverage in regard to school decisions, budgets, and whether there are on-site SLPs. Persuading those in authority of the importance of teachers collaborating with SLPs, and the need to increase student access to SLPs, is a potential means through which more students with SLCN may receive these services.

Teachers can also use their position to communicate with parents about the importance of seeking help for their child's SLCN from an SLP. This is due to the difficulty, faced by teachers and SLPs alike, in their limited power over the parents' decision to follow through on a referral recommendation. It is assumed that many teachers are already doing this, as they seek to ensure that all children are meeting their developmental and educational

outcomes; however, a continued emphasis on this is likely to result in more children receiving the assistance they need.

6.1.2 Implications for SLPs. SLPs are already limited in their ability to directly offer services to children with SLCN, with this research showing limitations in the number of sessions they provide for students, the length of these sessions, and their ability to provide services to all children with SLCN. These problems suggest that research should be undertaken that investigates ways to improve overall student access to SLPs. This could be research looking into the service delivery model, potential incentives to encourage the training of more SLPs to meet demand, and government initiatives to make SLPs more affordable for families.

6.2 Research Question 2: What importance do teachers versus SLPs assign to indicators used for identifying children with SLCN in the first year of school?

Differences were found in the importance ratings given to SLCN indicators by teachers versus SLPs. Five potential reasons for these differences were identified: teachers' and SLPs' different work contexts; different interpretation of the indicators; teachers' limited understanding of SLPs' scope of practice and of SLCN; and teachers' awareness of the limited access to SLP available to children.

Both the surveys and interviews suggested that SLPs view teachers as having inadequate knowledge of the scope of SLP practice, which could limit their referrals. Teachers also expressed concerns about their own limited knowledge of SLCN and relevant 'red flags'. This study also revealed that teachers' lack of knowledge was not aided by their limited access to assessment tools including screeners, assessments and checklists, to assist them in identifying children with SLCN.

Understandably, then, it was found that teachers had hesitations in referring; and in general, SLPs and teachers thought that children with SLCN were under-referred to SLPs. The referral of students in the first year of school was highlighted by participants as being less than for those in higher grades, with teachers potentially waiting to see how these children adjust to their new environment before referring to SLPs. Future research should, therefore, compare the differences between the first year of school and year 1, in terms of both the number of children referred to SLPs as well as which indicators were used for these referrals.

6.2.1 Implications for teachers. Many teachers, in this study, were shown to have hesitation in referring, despite research recommending liberal referrals to SLPs be made in the first year of school (Catts et al., 2001). Teachers should, therefore, be encouraged to be more assertive in their approach to the referral of children to SLPs. Rather than waiting to determine whether the SLCN that children are experiencing continue, teachers should refer as soon as they become aware that there are potentially SLCN. This will allow children with SLCN to be assessed by SLPs sooner, and hopefully to be prioritised for ongoing therapy when required.

6.2.2 Implications for SLPs. This study suggests that SLPs should be encouraged to seek contact with schools and form relationships with teachers, particularly those teaching the first year of school. This will allow SLPs and teachers to have informal conversations about students whose SLCN they are concerned about, or for teachers to receive guidance in whether these children should be referred to SLPs. This contact may help alleviate teachers' hesitation in referring and increase their knowledge of the indicators to look for when determining the presence of SLCN in the children they teach.

In forming relationships with schools, SLPs are also encouraged to offer professional development for teachers and parents alike. This could be in the form of information nights or short courses during the school year. These would allow SLPs to raise awareness about the scope of their practice, and to provide information about SLCN and the importance of seeking help for these needs. The involvement of both teachers and parents in these discussions is likely to create a greater, community-level understanding of the work of SLPs. The presence of parents during these sessions may also assist them in identifying SLCN that their children are experiencing or may experience in the future, thus taking some of the responsibility for this identification away from teachers.

6.3 Key study contributions

This study has made three key contributions to existing research, which are particularly relevant to teachers, SLPs, and families with children with SLCN.

Firstly, this study is the first to compare the importance that teachers and SLPs assign to indicators commonly used to identify children with SLCN. Establishing a list of SLCN indicators for children in the first year of school, all verified as important by experienced teachers and SLPs, is an important methodological contribution to research into the collaboration between teachers and SLPs. This list offers future research a basis upon which further investigation into these and other indicators for referral can be conducted. The finding that the importance ratings of the indicators used by the two groups of professionals are divergent establishes the need for increased efforts to create a shared understanding of children's SLCN between teachers and SLPs. This is vital in ensuring that children's SLCN do not remain undetected in the classroom, and that children with SLCN receive the assistance they need from SLPs. This is another important step in assisting teachers and SLPs

to collaborate more effectively in supporting children experiencing SLCN (Lindsay & Dockrell, 2004).

Secondly, the examination of the referral process in this study is significant, given the little information available on the referral process in schools (Glover, McCormack & SmithTamaray, 2015). Increasing information about this area is essential to provide educators, SLPs, families and government agencies the opportunity to reflect on the process, and on how it can be better arranged to meet the needs of all key stakeholders, particularly children with SLCN.

Thirdly, this study has contributed to a raised awareness, in the participants and other researchers, regarding the importance of SLCN in the first year of school. The finding from the current study that teachers often under-refer or delay the referral of children in the first year of school is particularly important to address, due to the necessity of early detection and intervention for children with SLCN (France, Freiberg & Homel, 2010). This raised awareness, in teacher participants in particular, will hopefully alert them to any concerns regarding SLCN in children in the first year of school, and improve teachers' confidence in making and justifying their decisions to refer students to SLPs.

6.4 Directions for future research

There are four main directions for future research. The first three of these expand on the three key contributions of this study.

First, in regards to the examination of the indicators of SLCN in children, it would be beneficial to investigate actual case studies of children with SLCN and their referral to SLPs by teachers. While the current study examined the importance teachers assigned to indicators commonly used when making referrals, the ones they use in practice may be different. This would allow researchers to gauge the accuracy of teachers' referrals, and to assess whether

particular conditions are being missed or are more readily referred by teachers than other types of SLCN. An investigation of teachers' reasons for referral or delaying referral would also be beneficial.

Secondly, the referral process should be investigated further. In particular, research into developing an assessment tool which could be added to the process to assist teachers in the identification of SLCN may be beneficial. As previous research has demonstrated mixed results regarding the use of screeners in the identification of children with SLCN (Dockrell & Howell, 2015; Jessup et al., 2008), any tool to be added would need to have a high sensitivity. Such an instrument would facilitate teachers in determining whether a child is experiencing a SLCN and refer to an SLP accordingly. This would also assist SLPs, as therapy sessions would then need to focus less on establishing the presence of SLCN, and more on diagnosing such needs and providing appropriate support to the children who experience them.

Thirdly, research comparing referrals of children in the first year of school with referrals for later primary school grades would be beneficial, due to differences in the referral rates shown between the first year of school and higher grades (Williams, 2006). Research could also compare the referrals in the first year of school to referrals in early childhood education settings, prior to school, as many children with SLCN are not identified before starting school (Tomblin et al., 1997). This could also examine teachers' reasons for their referrals to determine whether they are attributing children's SLCN to other factors, such as adjusting to their new school environment.

A final recommendation for future research is to investigate the barriers that prevent parents from taking their child to see a SLP, and the means for assisting parents to overcome these barriers.

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Appendix A

Ethics Approval

MACQUARIE University

CASSANDRA BEASLEY <cassandra.beasley@students.mq.edu.au>

RE: HS Ethics Application - Approved (5201700462)(Con/Met)

1 message

FHS Ethics <fhs.ethics@mq.edu.au> Tue, May 30, 2017 at 11:10 AM
To: Emilia Djonov <emilia.djonov@mq.edu.au>
Cc: Mridula Sharma <mridula.sharma@mq.edu.au>, Mrs Cassandra Nicole Jane Beasley <cassandra.beasley@students.mq.edu.au>

Dear Dr Djonov,

Re: "Teacher referrals of students to speech pathologists in the first year of school" (5201700462)

Thank you very much for your response. Your response has addressed the issues raised by the Faculty of Human Sciences Human Research Ethics Sub-Committee and approval has been granted, effective 29th May 2017. This email constitutes ethical approval only.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

https://www.nhmrc.gov.au/book/national-statement-ethical-conduct-human-research

The following personnel are authorised to conduct this research:

Dr Emilia Djonov

Associate Professor Mridula Sharma

Mrs Cassandra Nicole Jane Beasley

Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).

2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 29th May 2018

Progress Report 2 Due: 29th May 2019

Progress Report 3 Due: 29th May 2020

Progress Report 4 Due: 29th May 2021

Final Report Due: 29th May 2022

NB. If you complete the work earlier than you had planned you must submit a Final Report as soon as the work is completed. If the project has been discontinued or not commenced for any reason, you are also required to submit a Final Report for the project.

Progress reports and Final Reports are available at the following website:

http://www.research.mq.edu.au/current_research_staff/human_research_ethics/resources

3. If the project has run for more than five (5) years you cannot renew approval for the project. You will need to complete and submit a Final Report and submit a new application for the project. (The five year limit on renewal of approvals allows the Sub-Committee to fully re-review research in an environment where legislation, guidelines and requirements are continually changing, for example, new child protection and privacy laws).

4. All amendments to the project must be reviewed and approved by the Sub-Committee before implementation. Please complete and submit a Request for Amendment Form available at the following website:

http://www.research.mq.edu.au/current_research_staff/human_research_ethics/managing_approved_research_projects

5. Please notify the Sub-Committee immediately in the event of any adverse effects on participants or of any unforeseen events that affect the continued ethical acceptability of the project.

6. At all times you are responsible for the ethical conduct of your research in accordance with the guidelines established by the University. This information is available at the following websites:

http://www.mq.edu.au/policy

http://www.research.mq.edu.au/current_research_staff/human_research_ethics/managing_approved_research_projects

If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of approval to an external organisation as evidence that you have approval, please do not hesitate to contact the Ethics Secretariat at the address below.

Please retain a copy of this email as this is your official notification of ethics approval.

Yours sincerely,

Dr Naomi Sweller

Chair

Faculty of Human Sciences

Human Research Ethics Sub-Committee

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Ethics Forms and Templates

http://www.research.mq.edu.au/current_research_staff/human_research_ethics/resources

The Faculty of Human Sciences acknowledges the traditional custodians of the Macquarie University Land, the Wattamattagal clan of the Darug nation, whose cultures and customs have nurtured and continue to nurture this land since the Dreamtime. We pay our respects to Elders past, present and future.

B

Information and Consent form – Teacher

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Information and Consent Form - Teacher

Dear primary school teacher**,**

You are invited to participate in the research project **"Teacher referrals of students to speech pathologists in the first year of school"** either because you have expressed interest in participating in it in your response to the survey conducted earlier in this project and/or because your participation would allow interviews conducted in this project to reflect the perspectives of a larger group of primary school teachers..

The project is conducted by Ms Cassandra Beasley who is a Master of Research candidate at the Department of Educational Studies, Macquarie University, Sydney, Australia, working under the supervision of Dr Emilia Djonov and A/Prof. Mridula Sharma.

As part of this project, Ms Beasley would like to:

1. interview primary school teachers on their experience in and views about referring students in the first year of school to speech pathologists
2. interview speech pathologists on their experience with and views about referrals of students in the first year of school by teachers.

If you agree to participate, you will be interviewed about your experience in and views about referring students in the first year of school to speech pathologists. The interview will be semistructured and audio-recorded. It will last approximately 30-45 minutes. Participation in

this experience is voluntary, and you can decline to participate or withdraw at any time without having to give a reason and without any adverse consequences for your relationship with Macquarie University.

Participation in this project is not a test of teachers' or speech pathologists' professional abilities, but will allow us to gain knowledge about the current referral of students to speech pathologists in the first year of school and potential ways in which this practice can be improved. At the completion of the project, a brief summary of its findings will be available if requested by contacting a member of the research team (contact details are listed above). Please be assured that no individuals will be identified in the summary or any other reports without permission.

If you agree to participate in the interview on your experiences with teacher referrals to speech pathologists, you will need to complete this information and consent form. You can then either include this form in the return envelope together with your completed questionnaire or return it to Cassandra Beasley (email above). Cassandra Beasley will then counter-sign the form and give you a copy of the completed consent form to keep.

As a token of appreciation for your participation in an interview for this project, we would present you with a voucher (equivalent to A$20).

Data collected for this project will be used only for the purposes of this research project. No personal information identifying you will be made available to anyone except the research team involved in collecting the data for this project – Dr Emilia Djonov, Associate Professor Mridula Sharma and Ms Cassandra Beasley. If you have any further questions, please feel free to contact Dr Emilia Djonov or Associate Professor Mridula Sharma using the details provided above. You can also contact or Ms Cassandra Beasley via email (cassandra.beasley@students.mq.edu.au) or mobile (0403 757 087).

I, _____ (name of teacher) have read and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this project. I understand that my participation is voluntary and I can withdraw my consent at any time without having to give a reason and without consequences.

Participant

Participant's Name: _____
(Block letters)

Participant's Signature: _____ Date: _____ .

Investigator

Investigator's Name: CASSANDRA BEASLEY

Investigator's Signature: _____ Date: _____ .

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Director, Human Ethics and Integrity (telephone (02) 9850 7854; email: ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

C

Information and Consent form – Speech Pathologist

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Information and Consent Form – Speech Pathologist

Dear speech pathologist**,**

You are invited to participate in the research project **"Teacher referrals of students to speech pathologists in the first year of school"** either because you have expressed interest in participating in it in your response to the survey conducted earlier in this project and/or because your participation would allow interviews conducted in this project to reflect the perspectives of a larger group of speech pathologist who have worked with primary school children..

The project is conducted by Ms Cassandra Beasley who is a Master of Research candidate at the Department of Educational Studies, Macquarie University, Sydney, Australia, working under the supervision of Dr. Emilia Djonov and A/Prof. Mridula Sharma.

As part of this project, Ms Beasley would like to:

Appendix

1. interview primary school teachers on their experience in and views about referring students in the first year of school to speech pathologists
2. interview speech pathologists on their experience with and views about referrals of students in the first year of school by teachers.

If you agree to participate, you will be interviewed about experience with and views about referrals of students in the first year of school by teachers. The interview will be semistructured and audio-recorded. It will last approximately 30-45 minutes. Participation in this experience is voluntary, and you can decline to participate or withdraw at any time without having to give a reason and without any adverse consequences for your relationship with Macquarie University. Participation in this project is not a test of teachers' or speech pathologists' professional abilities, but will allow us to gain knowledge about the current referral of students to speech pathologists in the first year of school and potential ways in which this practice can be improved. At the completion of the project, a brief summary of its findings will be available if requested by contacting a member of the research team (contact details are listed above). Please be assured that no individuals will be identified in the summary or any other reports without permission.

If you agree to participate in the interview on your experiences with teacher referrals to speech pathologists, you will need to complete this information and consent form. You can then either include this form in the return envelope together with your completed questionnaire or return it to Cassandra Beasley (email above). Cassandra Beasley will then counter-sign the form and give you a copy of the completed consent form to keep.

As a token of appreciation for your participation in an interview for this project, we would present you with a voucher (equivalent to A$20).

Data collected for this project will be used only for the purposes of this research project. No personal information identifying you will be made available to anyone except the research team involved in collecting the data for this project – Dr Emilia Djonov, Associate Professor Mridula Sharma and Ms Cassandra Beasley. If you have any further questions, please feel free to contact Dr Emilia Djonov or Associate Professor Mridula Sharma using the details provided above. You can also contact or Ms Cassandra Beasley via email (cassandra.beasley@students.mq.edu.au) or mobile (0403 757 087).

I, _____ (name of teacher) have read and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this project. I understand that my participation is voluntary and I can withdraw my consent at any time without having to give a reason and without consequences.

Participant

Participant's Name: _____
(Block letters)

Participant's Signature: _____ Date: _____ .

Investigator

Investigator's Name: CASSANDRA BEASLEY

Investigator's Signature: _____ Date: _____ .

The ethical aspects of this study have been approved by the Macquarie University Human Research Ethics Committee. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Director, Director, Human Ethics and Integrity (telephone (02) 9850 7854; email: ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

D

Survey - Teacher

MRes - Teacher Survey

Start of Block: Section 1

Q1.1 **Teacher referrals of students to speech pathologists in the first year of school**

You are invited to complete a survey for teachers who have previously taught or are currently teaching kindergarten.

This survey is part of a study supported by Macquarie University. The study aims to investigate the referral of students to speech pathologists by teachers in the first year of school. Specifically, it will address the questions:

1. What are the key indicators that teachers state they use for making decisions about whether to refer a student to a speech pathologist and to what extent do these indicators align with those speech pathologists state they use?

2. In what ways can teacher referrals of students in the first year of school to speech pathologists be improved as suggested by teachers and speech pathologists?

This study is currently being conducted by Cassandra Beasley, Dr Emilia Djonov (Department of Educational Studies) and A/Prof Mridula Sharma (Department of Linguistics), Macquarie University. Please direct any questions you may have about this study to Cassandra on cassandra.beasley@students.mq.edu.au or 0403 757 087.

We would like to invite you to complete the survey if you are currently teaching or have recently taught kindergarten.

Appendix

Data collected through this survey will remain confidential. Data will be accessed only by the research team conducting this study, and respondents' real names will not be disclosed in any research presentations, disseminated reports or publications.

The survey should take 5-10 minutes to complete. If you are unable to finish the survey in one sitting, you may return to complete it over the next 5 days. Click on the survey link to return to the survey, but you must do this on the computer you used to start the survey. To review or revise your responses, please use the 'BACK' button at the bottom of each page of the survey. (Do not use your web browser's 'BACK' button).

Please note that completion of the survey indicates your consent for data collected through the survey to be included in this research project and resulting publications.

A copy of any publication or conference paper that reports findings from the study can be made available to you upon request. Thank you for your interest in this project. When you have read and understood the requirements of this survey and are happy to proceed, please click on the 'NEXT' button.

Q1.2 Please provide details about the highest level of education you have completed

- Tafe course (1) _____
- Bachelor's degree (2) _____
- Master's degree (3) _____
- PhD (4) _____
- Other (5) _____

Q1.3 How many years have you been working as a primary school teacher?

- 0-1 (1)
- 2-5 (2)

- ○ 6-10 (3)
- ○ 10+ (4)

Q1.4 How recently have you taught kindergarten?

- Currently teaching kindergarten (1)
- Last year (2)
- 2-5 years ago (3)
- 6-10 years ago (4)
- More than 10 years ago (5)
- I have never taught kindergarten (6)

Q1.5 Your current school is...

- Public (1)
- Independent (2)
- Catholic (3)

Q1.6 What is your school's postcode and suburb?

- Postcode (1) _____
- Suburb (2) _____

Q1.7 Are you a member of the NSW Education Standards Authority (NESA) (previously NSW Institute of Teachers)?

○ Yes (1) ○ No (2)

End of Block: Section 1

Start of Block: Section 2

Q2.1 Does your school have an 'in-house' speech therapist?

☐ Yes (1)

☐ No (2)

Display This Question:

If Does your school have an 'in-house' speech therapist? = Yes

Q2.2 How many days (per week) do they work at your school?

○ 1 (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 (5)

Q2.3 Have you ever referred a student to a speech pathologist?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If Have you ever referred a student to a speech pathologist? = Yes

Q2.4 How many students each year (on average) have you referred to a speech pathologist for speech therapy?

- ○ Less than 1 student (1)
- ○ 1-2 students (2)
- ○ 2-5 students (3)
- ○ 6-10 students (4)
- ○ More than 10 students (5)

Q2.5 Have you ever suggested to a parent that they take their child to see a speech pathologist?

- ○ Yes (1)
- ○ No (2)

Q2.6 Have you ever referred a student to a Learning Support team or teacher for a language and communication difficulty?

○ Yes (1) ○ No (2)

Q2.7 Have you had any professional opportunities to develop skills and knowledge about speech therapy (such as professional development, conferences, team teaching)?

○ Yes (1) ○ No (2)

Display This Question:

If Have you had any professional opportunities to develop skills and knowledge about speech therapy... = Yes

Q2.8 What were the professional opportunities that helped you develop skills and knowledge about speech therapy

Q2.9 Below are some indicators used by teachers to gauge whether a kindergarten student may need to be referred to a speech pathologist. Please rate the ones listed below from 1 (not important) to 5 (very important).

	Not important (1)	Slightly important (2)	Moderately important (3)	Important (4)	Very important (5)
Difficulty with speech sounds (1)	☐	☐	☐	☐	☐
Difficulty with articulation (2)	☐	☐	☐	☐	☐
Difficulty with social communication (3)	☐	☐	☐	☐	☐

Difficulty following instructions (4)	☐	☐	☐	☐	☐
Difficulty answering simple personal questions (e.g. name, age etc) (5)	☐	☐	☐	☐	☐
Poor use of sentences or expression (6)	☐	☐	☐	☐	☐
Difficulty naming or identifying objects and/or actions (7)	☐	☐	☐	☐	☐
Difficulty with phonological awareness tasks such as rhyming (8)	☐	☐	☐	☐	☐
Difficulty learning to read (9)	☐	☐	☐	☐	☐
Difficulty learning to spell (10)	☐	☐	☐	☐	☐
Difficulty with written language (11)	☐	☐	☐	☐	☐
Poor performance in an in-class assessment (12)	☐	☐	☐	☐	☐

Previous speech therapy (13)	☐	☐	☐	☐	☐
Difficulty listening (14)	☐	☐	☐	☐	☐
Short attention span (15)	☐	☐	☐	☐	☐
Behavioural problems (16)	☐	☐	☐	☐	☐
Difficulty completing tasks in a set time frame (17)	☐	☐	☐	☐	☐

Q2.10 Do you think there are any other key indicators used by teachers to gauge whether a kindergarten student may need to be referred to a speech pathologist?

○ Yes (1)

○ No (2)

Display This Question:

If Do you think there are any other key indicators used by teachers to gauge whether a kindergarten... = Yes

Q2.11 Please list any other key indicators you believe teachers may use to gauge whether a kindergarten student may need to be referred to a speech pathologist in order of importance

End of Block: Section 2

Start of Block: Section 3

Q3.1 At your school, who is responsible for first identifying students with language or communication difficulties? ○ Classroom teacher (1) ○ Stage coordinator (2) ○ Parent (3) ○ Learning support teacher (4) ○ Learning support team (5)

○ Other (6) _____

Q3.2 What is the process for referring students to speech pathologists at your current school (or the last school you worked at full time)?

Q3.3 What do you believe are some of the positive aspects of this process?

Q3.4 How do you believe the current process could be improved?

Q 3.5 Do you have any other comments about the referral of kindergarten students by teachers to speech pathologists?

_____

Q3.6 Stage 2 of this research involves interviews with willing participants. Are you happy to be contacted for an interview on this topic? Interviewees will be given a $20 voucher as a token of appreciation. ○ Yes (1) ○ No (2)

Page Break

Display This Question:

If Stage 2 of this research involves interviews with willing participants. Are you happy to be conta... = Yes

Q3.7 Please provide your contact details so that you can be contacted for an interview

○ Name (1) _____ ○

Phone (2) _____ ○ Email (3)

_____

End of Block: Section 3

Appendix E

Speech Pathologist Survey

MRes - Speech Pathologist Survey

Start of Block: Section 1

Q1.1 **Teacher referrals of students to speech pathologists in the first year of school** You are invited to complete a survey for speech pathologists who have previously been or are currently involved in therapy for children in their first year of school.

This survey is part of a study supported by Macquarie University. The study aims to investigate the referral of students to speech pathologists by teachers in the first year of school. Specifically, it will address the questions:

1. What are the key indicators that teachers state they use for making decisions about whether to refer a student to a speech pathologist and to what extent do these indicators align with those speech pathologists state they use?

2. In what ways can teacher referrals of students in the first year of school to speech pathologists be improved as suggested by teachers and speech pathologists?

This study is currently being conducted by Cassandra Beasley, Dr Emilia Djonov (Department of Educational Studies) and A/Prof Mridula Sharma (Department of Linguistics), Macquarie University. Please direct any questions you may have about this study to Cassandra on cassandra.beasley@students.mq.edu.au or 0403 757 087.

We would like to invite you to complete the survey if you are currently or have recently been involved speech therapy for students in their first year of school.

Data collected through this survey will remain confidential. Data will be accessed only by the research team conducting this study, and respondents' real names will not be disclosed in any research presentations, disseminated reports or publications.

The survey should take 5-10 minutes to complete. If you are unable to finish the survey in one sitting, you may return to complete it over the next 5 days. Click on the survey link to return to the survey, but you must do this on the computer you used to start the survey. To review or revise your responses, please use the 'BACK' button at the bottom of each page of the survey. (Do not use your web browser's 'BACK' button).

Please note that completion of the survey indicates your consent for data collected through the survey to be included in this research project and resulting publications.

A copy of any publication or conference paper that reports findings from the study can be made available to you upon request. Thank you for your interest in this project. When you have read and understood the requirements of this survey and are happy to proceed, please click on the 'NEXT' button.

Q1.2 Please provide details about the highest level of education you have completed ○

Bachelor's degree (1) _____ ○

Master's degree (2) _____

○ PhD (3) _____ ○ Other (4)

_____

Q1.3 Are you a member of Speech Pathology Australia?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If Are you a member of Speech Pathology Australia? = No

Q1.4 Are you a member of any professional speech pathologist organisations?

- ○ Yes (1)
- ○ No (2)

Display This Question:

If Are you a member of any professional speech pathologist organisations? = Yes

Q1.5 What speech pathologist organisations are you a member of?

_____

Q1.6 How many years have you been involved in providing speech pathology services to children?

- ○ 0-1 (1)
- ○ 2-5 (2)
- ○ 6-10 (3)
- ○ 10+ (4)

Q1.7 What percentage of your caseload are in kindergarten?

- ○ Less than 25% (1)

- 25-50% (2)
- 50-75% (3)
- Greater than 75% (4)

Q1.8 What percentage of your caseload are from teacher referrals?

- Less than 25% (1)
- 25-50% (2)
- 50-75% (3)
- Greater than 75% (4)

Q1.9 Do you currently work in a school setting?

- Yes (1)
- No (2)

Display This Question:

If Do you currently work in a school setting? = Yes

Q1.10 How many days (per week) do you work in a school setting?

- 1 (1)
- 2 (2)
- 3 (3)

- ○ 4 (4)
- ○ 5 (5)

End of Block: Section 1

Start of Block: Section 2

Q2.1 Do you assess kindergarten children?

○ Yes (1) ○ No (2)

Display This Question:

If Do you assess kindergarten children? = Yes

Q2.2 What assessments do you use with kindergarten children? (Check any that apply)

- ☐ Sutherland Phonological Awareness Test – Revised (SPAT-R) (1)
- ☐ School Entry Alphabetic and Phonological Awareness Readiness Test (SEAPART) (2)
- ☐ Clinical Evaluation of Language Fundamentals (CELF-4) (3)
- ☐ York Assessment of Reading for Comprehension (YARC) (4)
- ☐ Neale Analysis of Reading Ability (5)
- ☐ Educheck (6)

- [ ] Preschool and Primary Inventory of Phonological Awareness (PIPA) (7)
- [ ] Narrative retell task (8)
- [ ] Peabody Picture Vocabulary Test (9)
- [ ] Comprehensive Test of Phonological Processing (CTOPP-2) (10)
- [ ] Other (11) _____

Q2.3 In your experience, what percentage of students who are referred by teachers need speech therapy?

- ○ Less than 25% (1)
- ○ 25-50% (2)
- ○ 50-75% (3)
- ○ Greater than 75% (4)

Q2.4 Below are some indicators used by teachers to gauge whether a kindergarten student may need to be referred to a speech pathologist. Please rate the ones listed below from 1 (not important) to 5 (very important).

	Not important (1)	Slightly important (2)	Moderately important (3)	Important (4)	Very important (5)
Difficulty with speech sounds (1)	☐	☐	☐	☐	☐
Difficulty with articulation (2)	☐	☐	☐	☐	☐
Difficulty with social communication (3)	☐	☐	☐	☐	☐
Difficulty following instructions (4)	☐	☐	☐	☐	☐
Difficulty answering simple personal questions (e.g. name, age etc) (5)	☐	☐	☐	☐	☐
Poor use of sentences or expression (6)	☐	☐	☐	☐	☐
Difficulty naming or identifying objects and/or actions (7)	☐	☐	☐	☐	☐
Difficulty with phonological awareness tasks such as rhyming (8)	☐	☐	☐	☐	☐
Difficulty learning to read (9)	☐	☐	☐	☐	☐
Difficulty learning to spell (10)	☐	☐	☐	☐	☐
Difficulty listening (11)	☐	☐	☐	☐	☐

Poor performance in an inclass assessment (12)	☐	☐	☐	☐	☐
Previous speech therapy (13)	☐	☐	☐	☐	☐
Short attention span (14)	☐	☐	☐	☐	☐
Behavioural problems (15)	☐	☐	☐	☐	☐
Completing tasks in a set time frame (16)	☐	☐	☐	☐	☐
Difficulty with written language (17)	☐	☐	☐	☐	☐

Q2.5 Do you think there are any other key indicators used by teachers to gauge whether a kindergarten student may need to be referred to a speech pathologist?

- Yes (1)
- No (2)

Display This Question:

If Do you think there are any other key indicators used by teachers to gauge whether a kindergarten... = Yes

Q2.6 Please list any other key indicators you believe teachers may use to gauge whether a kindergarten student may need to be referred to a speech pathologist in order of importance

End of Block: Section 2

Start of Block: Section 3

Q3.1 What do you believe to be the referral process of students to speech pathologists in schools?

Q3.2 What are some of the positive aspects of the current teacher referral process?

Q3.3 How do you believe the current process could be improved?

Q3.4 Do you have any other comments about the referral of kindergarten students by teachers to speech pathologists?

Yes (1) _____

No (2)

Q3.5 Stage 2 of this research involves interviews with willing participants. Are you happy to be contacted for an interview on this topic? Interviewees will be given a $20 voucher as a token of appreciation. Yes (1) No (2)

Display This Question:

If Stage 2 of this research involves interviews with willing participants. Are you happy to be conta... = Yes

Q3.6 If yes, please provide your contact details:

Name (1) _____

Phone (2) _____

Email (3) _____

End of Block: Section 3

Appendix F

Interview questions - Teachers

Semi-structured Interview Questions – Teachers

1. Personal information

1.1) Age
1.2) Number of years experience teaching
1.3) Number of years experience teaching kindergarten
1.4) Highest qualification

1.5) Current school context – Independent, Catholic, Public

2. Experience with teacher referrals to speech pathologists

2.1) What is the referral process for students with language and communication difficulties at your current school or the last school you taught at?
2.2) Have you ever referred a student to a speech pathologist? *(If yes, continue to 2.3, if no go to 2.4)*
2.3) What were the indicators that led you to refer that student?
2.4) What are the indicators that you have seen other teachers use to inform their decision to refer a student to a speech pathologist?
2.5) Do you have any hesitation in referring a student to a speech pathologist? Why?/Why not?
2.6) Do you believe it students are generally under referred or over referred, or just the right amount? Why?

3. Attitudes towards the referral process of students to speech pathologists in the first year of school

3.1) Do you like the current referral process at your school? Why?/Why not?
3.2) What do you believe are the strengths of the current referral process?
3.3) What do you believe are the weaknesses of the current referral process?
3.4) How do you think the current referral process could be improved?
3.5) Does the current referral process make it difficult for you to support students to the level you believe is necessary for them to improve in their language and communication?
3.6) Is there anything else about the referral by teachers of students to speech pathologists that you would like to add?

Appendix G

Interview Questions – Speech Pathologists

Semi-structured Interview Questions – Speech Pathologists

1. Personal information

1.1) Age
1.2) Number of years experience as a speech pathologist
1.3) Number of years experience as a speech pathologist with kindergarten children
1.4) Highest qualification

2. Experience with teacher referrals to speech pathologists

2.1) Have you ever worked with a student in their first year of school who had been referred to you by a teacher? *(If yes, continue to 2.2, if no go to 2.3)*
2.2) What were the indicators that led the teacher to refer that student to you?
2.3) What are the indicators that you have seen teachers use to inform their decision to refer a student to a speech pathologist?
2.4) Do you think teachers have any hesitations in referring a student to a speech pathologist? Why? Why not?

2.5) Do you believe students are generally under referred or over referred, or is the rate of referrals just right? Why?

3. Attitudes towards the referral process of students to speech pathologists in the first year of school

3.1) Are you familiar with the processes schools and teachers rely on to refer students to speech pathologists? If yes, can you please describe the most common processes?

3.2) Do you like the referral processes schools use? Why? Why not?

3.3) What do you believe are the strengths of these referral processes?

3.4) What do you believe are the weaknesses of these referral processes?

3.5) How do you think the current referral process could be improved?

3.6) Does the current referral process make it difficult for you to support students to the level you believe is necessary for them to improve in their language and communication?

3.7) Is there anything else you would like to add about teacher referrals of students to speech pathologists?

Appendix H

Survey - Open-ended responses – Teachers

Q3.2 - What is the process for referring students to speech pathologists at your current school (or the last school you worked at full time)?

Teachers may ask parents if the child has ever had support from a speech pathologist. This may lead to a conversation about how the child is managing at school. Students can also be referred to the Learning Support Team and then on to the school counsellor. Teachers can also meet with parents and the school counsellor together to discuss potential problems. This adds an extra layer of credibility to the subject.

The classroom teacher notices the problem being encountered by the student and either discusses this with the learning support teacher or makes a paper referral. The learning support teach will then observe the student or do an assessment before suggesting to the parents that they need speech pathology. It is then up to the parents to take their child for an assessment or therapy.

Please note from earlier question, that I actually don't phone up a speech pathologist and provide a student's name for intervention. I speak to the parents about the facts I observe about their child. I write a referral to the Learning Support Team. This usually leads to me urging the parents to take their child to a GP for a referral to a Speech Pathologist for an assessment or phone up a Speech Pathologist directly. In the past, I did a short assessment which included commands such as "pick up the blue pencil and jump up 3 times", point to a picture of a thumb and ask child "what is this?" This test did come from our School Counsellor.

Class teacher can suggest the parent could request a list of speech pathologists in the general area of the school that some parents have used. The parent would be responsible to follow thias option if they chose to. The class teacher could request the Learning spport team include the student in small group extra lessons to assist their learning.

Speak to parents Go to learning support team Refer to parents to speech pathologist

---

1. Discuss issues with colleagues on same grade and implement suggestions 2. Complete a 'learning support' referral and meet with the Learning Support team to discuss the students. The Learning Support team provides recommendations for the student and for the class teacher. 3. The Learning Support team may provide information about a local speech pathologist for the student to attend. However, this is to be organised by the parent and to be done out of school hours. 4. The school will assist with the process, but it is primarily up to the parents to organise.

As there is no in-house speech pathologist, it is up to the teacher to refer students. This would probably begin with a conversation with the stage supervisor informing them about a student and their difficulty and to gain approval to approach the parents. It is then mostly up to the parents to follow through with this therapy. Teachers are usually asked to complete informative surveys as produced by the speech therapist once sessions have begun.

Referral to Learning Support Team for further discussion and investigation.

Speak with the Learning Support team and parents

Speak to supervisor, refer to Learning support team/counselor - speech referral

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Discussion with parents about the possibility of a speech assessment and referral to the LST. Place a learning support referral and contact parents to come in or a parent teacher conference. Encourage parents to seek external intervention. Record minutes of interview and place on student tracking document.

Referring the child to the Learning Support Team to then discuss their progress, concerns and decide on further actions e.g speech pathologist.

Either refer them to the learning and support team to 'flag' them and the student could then be recommended to see a counsellor. From there, they might do a cognitive test and might pick it up and a speech assessment is recommended. OR A note is sent home from a learning support teacher informing parents of an in-service speech pathologist with suggestions to call them. This is given to them by the classroom teacher if they think it is necessary.

The referral is raised with the stage coordinator and learning support team. Then the parents would be approached with the school's recommendation for their child to see a speech therapist for an assessment.

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1. Teacher to observe and build a profile. 2. Share with Special Needs Teacher 3. Depending on advice given , the next step is unknown

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A referral is made for the LEAP team to assess

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referral to learning support team teacher to parent contact screening using CELF

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1. Teacher discusses with supervisor 2. Parent/teacher meeting regarding the issue 3. Referral to Learning Support 4. Learning Support will assess and then provide parents with options

Fill in a form and give it to the learning support teacher. They the have the speech therapist do an assessment and students who identify as delayed or significantly delayed for their age are put on a speech program where they are withdrawn by an SLSO

I find out who other parents have used and provide those contact details. Some parents go and make their own enquiries through parent network/friends. One parent this year is going back to the children's hospital where their son received prior treatment for another condition when he was younger. They feel more comfortable because of the history/relationship.

Language screener, lst referral, meeting with parents to discuss child's difficulties that you are observing, explaining that we are not experts but want the best for the child so parents

awareness is important CT>AP>LST

Referral to the learning support team and speak with parents

A meeting with the parents, with support from the Learning Support Teacher (LST) if needed. Discussions are generally held with the LST if receptive/expressive language difficulties are identified, and a list of recommended speech therapists given to the parents.

Usually Parents are notified after some period of time at school. If there are serious problems with receptive or expressive language as soon as possible. Learning support teacher may complete a Sutherland Phonological assessment.

Personal or following referral to Learbing support team

We give the parents the information to access free speech therapy and then if and when those classes are exhausted we pass on the contact details of a speech pathologist.

Myself, as Principal - I interview all preschoolers prior to school entry and conduct an articulation screening test. I listen to the children and recommend speech therapy if there are sounds not evident for age. Our Inclusive a Education Coordinator refers children, following identification by classroom teacher.

Screening Assessment (Celf 4) conducted. Parents asked to organise heating and vision tests. The. Referred to the Catholic Education Office for a language assessment referral to the learning support teacher and then a parent meeting
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Speak with parents to discuss concerns. Gain insight into parents recent awareness of possible areas of concern. Parents source speech service. Most parents follow up suggestion. Meet to discuss assessment and discuss recommendations.

Teacher or Learning Support Teachers recommends to parents.

A learning support team referral in consultation with parents. Possible access to external speech therapy program conducted within SACC. A speech referral in consultation with parents whereby a speech assessment is conducted by a school speech pathologist or private speech pathologist as preferred by parents.

Refer first to Learning support team who will then consider, with school exec & suggest whether or not a referral to therapist is necessary.
Learning support team. All students that Kindergarten teachers would like to have a
screening with the Speech Pathologist are assessed in term 2. Learning Support referral form
Discussion with parents. Can be with or without counselor present.
Teacher speaks with Learning and Support teacher. LAST teacher assesses student. Parents and teachers informed of findings. A list of options given to parents.
Discuss with parents
Informal chat with in house speech pathologist and learning support team. Chat with parents. Complete referral form. Speech pathologist might come and do an informal check. Before formal process begins.

Q3.3 What do you believe are some of the positive aspects of this process?

I know from experience that some parents get very upset and resentful if the class teacher makes any suggestions about child's potential problems. The can also believe that the child will 'grow out of it'. If parents are already aware of the problem from preschool, it is much easier to raise the issue in the school situation.

The learning support teacher is able to give additional help to the classroom teacher in making the decision. The classroom teacher spends the most time with the student so may see things that other teachers don't.

Vital to talk to parents first (they are the first teachers of their offspring).

The parents take ownership of assiting and guiding the extra assistance for thier child as there would need to be a consistant practising og set activitites to devlop the particular skills to be learned and supported. The class eacher can then support the family however the prcess takes a long time to get up and runnin and often parents don't acknowledge there is a problem until later and more difficult to remediate.

You receive another opinion from the Learning support team on whether they believe the student needs speech.

The student is identified as a possible risk for falling behind and the Learning Support team is aware of their needs. As a teacher, I receive great advice, tips and strategies to implement for this student and for students in the future.

I think that it's good that teachers are the ones to be the primary person to refer students as they see the student in many different situations (ie whole group, partner work, group work) as well as in various subjects. I also think it's crucial for teachers to be the primary referee because they would also see students in their social environment.

Other teachers/professionals involved in the consultation for further ideas and information. Referral information is documented and followed up.

Discussions with other members in the school

Gain knowledge/opinions of others

Having the ability to screen a child allows teachers to suggest the assessment to parents with confidence.

Recording and storing evidence of the teachers proactivity in encouraging parents to seek speech therapy protects teachers from future unhappiness form parents.

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Teacher assessment of student and the articulation of their needs within a supportive and experienced environment of teachers, executive and counselor who can then help suggest possible actions or solutions.

If a teacher is confident in knowing that a student needs speech therapy, we have an easily accessibly referral letter to give to the parents. We also have other teachers who are aware of the situation if they were put through learning support and other issues may be picked up and discussed so that the classroom teacher is thinking beyond a speech problem.

It involves a number of experienced professionals within the school. Members of the child's school community are aware of the child's needs. The parents are directly involved and included with the referral.

1. Begins with the teacher. ..the person who knows the child the most

The Leap teacher, Head of Junior and Director of Teaching and Learning are aware of what is happening with a particular student and have the means to put into effect a course of action.

early detection
A lot of people are involved allowing for the student to receive internal as well as external assistance.

The assessment from the speech therapist to show parents that they actually have a speech delay not just that they 'talk different'

Word of mouth referrals seem to make parents feel more comfortable and secure with the decision to send to speech pathologist.

Early intervention

There is a process to follow and when you get to LST, you are with staff who have much expertise.

Differerent insights and knowledge of the child

A team approach, a discussion that discusses the child in the school setting, which can be different to the home setting

A need to give students time to be part of school life . A Sutherland Phonological Assessment is a useful indicator. Parents often seek support

One on one intervention

We have developed a good rapport with several speech therapists.

It is generally successful but relies on parent follow through. Not all parents seek assessment or therapy due to cost.
Children identified are aseesed during school hours with follow up sessions/ homework packs provided.
It develops a paper trail and record of attempted intervention on the schools part.
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Open and clear communication with students improved outcomes as goal.
We try to get on to it ASAP in kindergarten.
The consultative nature of the process. The support of other teachers and learning support team.
Shared accountability.
Allows for problems to hopefully be identified Early
It's good for collecting data.
It lets the parents know in a less stressful situation.
A number of teachers are able to identify the causes of concerns. Ensures students do not fall through the gaps.
Professional opinion is respected, knowledge of student is evident, parents aware (or closer recognition) of child's needs.
Having someone on hand to ask the questions, and to run ideas by. It is always useful having an informed second opinion by someone.

Q3.4 How do you believe the current process could be improved?

Most children who come to my school have already been assessed and/or treated if they have had speech difficulties in preschool. Sometimes parents need to reassess their child's need for further speech pathology, in conjunction with the class teacher or school counsellor. I don't know how this process could be improved but as speech pathology is very expensive, a subsidised government-supplied professional could ensure that more needy children are offered help quickly.

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It is very hard for teachers to know exactly what to look out for and what is developmentally appropriate. Not to mention they are having to look out for lots of other development issues in other areas e.g. do they need to see a counsellor, occupational therapist etc. It would be helpful to have a checklist at each grade level of what to look out for in speech/language development and when it is necessary to send a student to a speech pathologist. More PD for teachers about what speech pathologists actually do and how they support students.

If the parents didn't do anything, a phone call from the school principal is needed. Perhaps mentioning educational neglect, "we need to work together to benefit your child". This would shock the parents into the urgency of needing specialist help for their child.

Having a resident speech pathologist that visited and was able to assess students at school that class teachers thought were at risk, would enable the school and family to partner together and begin the process needed far more quickly than at present.

Have some qualified in speech pathology at school to determine if they need the extra support.

I am unsure!

Once a student has been identified as needing speech therapy, it is up to the parents to follow through. I think this can be an issue as if the students' parents don't acknowledge there is a problem, then therapy is not likely to happen. I think it would be better if the referral went through a specific pathologist or else worked in conjunction with the learning and support team. This way there is more gravitas to the situation and the parents might see the need as more urgent.

The process would benefit from a faster timeframe - consultation to action

Parents are sometimes unaware of available resources. Students need to be viewed by a number of teachers within the school rather than just the classroom teacher

?

If only we all had the money for an in-house speech therapist!

Screeners at the beginning of Kindergarten so teachers are better able to communicate the need for therapy. Teacher PD to know how to identify and also provide strategies that will allow classroom teachers to work alongside parents and students with speech therapy.

More understanding of what speech pathologists do and how to identify students who could benefit from a speech pathologist.

N/A i think it works well.

Teacher's could receive more training about what aspects of student needs or behaviours would be worthy of a speech therapy referral.
The process can be improved by the school having a clear procedure for the classroom
teacher to know more clearly the schools referral process. Not sure
screening of students near entry level Allowing the class teacher to offer suggestions after talking with learning Support.
Once a child is identified they get more than one 30min session a week to try and help them
Needs to be a transparent, well advertised central point that parents can access for names and details of these providers (Learning Support/counsellor???).
We borrow the language screener assessment. So we are currently looking at purchasing one for our school
Schools of a large size should be funded to have speech pathologists, just like they have counsellors.
Greater accesss and teacher knowledge about what to look for
Having access to speech therapists, maybe in school therapists, as many parents find the cost prohibitive, and the waiting lists and consistency with public health therapists are a concern. A school speechie could provide a screener that could be shared with parents.
Nothing as we have a training course at CSU it is relatively easy to have speech assessments completed. Also the same for therapy
Not sure
It would be far better if parents were able to access free speech therapy sooner and also if more children came to school having already accessed speech therapy. If language is very poor it impacts a child's ability to hear sounds and therefore read and write.
Free screeners for preschoolers and access to support in school.
This is a slow process. And children who require on going speech sessions only recieve 2 x 15 minute therapy sessions per term.
At the moment we have printed forms and it would be more accessible if we had online forms.
Have a learning specialist in the school.

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Speech Pathologists employed by DEO and based in all schools.

Less paperwork. Online referral process.

It could be faster.

Screening of all students

Interview with Speech Pathologist

Evidence to show parents - ie assessment for a teacher to complete

Currently DEC schools are not able to recommend Speech Pathologists, we can only give a list of ones in the area.

Speech therapists listen to all children during Kindergarten Orientation in Term 4 of year before starting school.

Less rigidity in the formalising process. The speechie is still paid externally by parents, so it would be better if the service was more incorporated into the school.

Q3.5 Do you have any other comments about the referral of kindergarten students by teachers to speech pathologists?

No

It is hard that it is often up to the parents to get their child to therapy outside of school hours at a different location. This makes it logistically a lot more difficult than when schools have their own speech pathologist.

If we or the parents do nothing the child may become worse. Parents need to be flexible with their work and thinking. Their child's health and happiness is more important than their career. Need to take time off work eg 2 hours on Friday, to take their child to therapy. Problems (socially and academically) will escalate if they ignore the speech problems.

I would love to see speech pathology more ontegrasted with Pirmary schools.

no.

No

If students do attend therapy they communicate with the classroom teachers the results and strategies for the classroom.
Sometimes it can be tricky getting the parents on board or understanding the need
no
Years ago, our school had speechie students visit every week and work with targeted students and teachers , as part of their project learning. Is this still available? Also I would like a checklist or some assessment that a teacher could perform informally to see if the potential for speech therapy is there or not.
Sometimes referrals are not made by kindergarten teachers as they feel it is too early to make a referral as they are still settling into school. Difficulties are often confused with first year at school challenges.
hard to access due to financial issues
I think there are benefits to students who really need the support. At the last school I worked at (in Kindy), a speech pathologist wrote to every parent and I felt that was a marketing tactic and plays on parent insecurities when they get a report indicating minor speech difficulties (a lisp, for instance). Treatment can be expensive.
Not being experts in this field we are simply making the suggestion. Most of us believe it is then the responsibility of the parent to flood through on our suggestion
I wish some parents would take teachers recommending speech therapy for their child more seriously!
To be aware that sometimes their suggestions are hard to complete in classroom settings.
No
I am surprised that some parents indicate that their child's preschool teacher has not mentioned concerns despite articulation issues being very obvious to me and parents.
Ni
It probably needs to be done more as it can be difficult to identify and easily missed.
Many should see learning support
No

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I would like a process more aligned with the assessments completed by speech pathologists themselves so we have evidence for parents/carers along the same lines that the therapists themselves would use.

A checklist from ST on things to look out for would be good. On house ST would be amazing!

Ni

Unfortunately speech problems should be picked up at Pre-schools so students receive help earlier in their schooling.

It should be done more readily. The stigma of referring children for help is reducing over the years, however, this is less of an issue when the speechie works in house.

Appendix I

Survey – Open-ended responses – Speech Pathologists

Q3.1 - What do you believe to be the referral process of students to speech pathologists in schools?

Depends if the school has an SP consistently at the school. The school I'm based in the teacher speaks with the parent and then the parent contacts us (the teacher may have discussed with us first and we have probably already done a screener) At other schools typically the teacher
speaks to the family and then hope they follow up a referral. Sound production, following instructions and Language structure
Teacher ask parent to contact
Teacher identifies concerns , raises with parents, then makes referral
The teacher recommends the parent seek a speech pathology assessment. Sometimes the child is seen by the school counsellor who then makes the referral.
Either through learning support teacher or asking the parents to seek a speech pathology assessment
Not standard in my state. Referral tends to be by teacher suggestion to parent, then parent follow up.
Teacher talks to speech pathologist about children they are concerned about.
Teachers generally ask parents to contact speech pathology
Teacher recommends assessment to parents.
Different each area. Dependent on local health referral pathway. Often once at school referral is to private slp - which is where I worked
Screening tool should be used to pick up at risk children
Referral to Student Support Services occurs through the school. This can be preceded by primary school nurse or/and parental concern/discussion with someone at the school.

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If teachers are concerned about a student's speech or language, especially if the student is not making the desired progress, they refer for an assessment.
Teachers notice the difficulties and discuss with wellbeing coordinator to then refer to speech pathologists.
Formal referral via referral form directly from teacher to SP
verbal - phone number - e-mail. Direct contact
I work in a private capacity in Catholic Schools and my clinic. In the schools, referrals are either directly from class teachers or sometimes via learning support teachers. In the clinic, less referrals come directly from teachers
each sector has a different process (eg catholic ed versus ed dept). Then each principal layers their own data collection over the top of the referral
Usually teacher speaks to parents who contact speech pathologist Teachers tell parents who contact therapist
Teacher raises concern with the school's Student Wellbeing coordinator who then discusses potential referral with the speech pathologist. Once referral is deemed appropriate, the school organizes consent & teacher referral form to be completed. Child is then added to online referral system & goes on to waiting list for allocation
Teachers id that students are performing below their peers in one or more areas. Sometimes this can be unrelated to language/speech issues. A screening tool provided by SP is useful to help them ID what is going on with the student. Some educational ax tools are provided which do not give us enough information (e.g. record of oral language).
Information and screeners to teachers then those that are found to have difficulties are referred.
Teachers discuss their concerns with the assistant principal then a referral is made if appropriate
IN PRIVATE SCHOOL SETTING WHERE AN SLP AVAILABLE THEN TEACHER RAISES DIRECTLY WITH SLP, POSSIBLY REQUESTING OBSERVATION, THEN REQUEST FROM FAMILY/CARER TO REFER DIRECTLY TO SCHOOL CLINICIAN. IF PREFERRED THEN SUPPLY OF INF ON COMMUNITY CLINICIAN (UNLIKELY). IN OTHER SETTINGS WHERE A CLINICIAN IS NOT AVAILABLE THEN TEACHER RAISES NEED WITH FAMILY/CARER. TEACHER THEN WAITS, HOPING THAT FAMILY PURSUES THE RECOMMENDATION. IT MAY BE THE NEXT REPORT ROUND OR PARENT-TEACHER INTERVIEW BEFORE APPROPRIATE TO FOLLOW UP.

HOWEVER, SOME TEACHERS MAKE REGULAR WEEKLY/FORTNIGHTLY ENQUIRIES. INFO SUPPLIED IS ABOUT COMMUNITY CENTRES OR KNOWLEDGE OF PRIVATE CLINICIANS.

- Teacher talks to parent, and parent makes a booking directly with the speech pathology service.

A direct referral to the speech pathologist should be made via the parents. Teacher questionnaires are usually provided for teachers to document their concerns and observations in the classroom regarding the student, however, a more detailed accompanying letter, phone chat or face to face meeting with the teacher and speech therapist would also be beneficial.

depends on many factors - parents contact private practice some private SLPs work in schools - teachers may suggest to parents to contact

Q3.2 What are some of the positive aspects of the current teacher referral process?

Open communication between teachers and parents Parents are encouraged to take an active role in the speech therapy and their child's learning

Early intervention Progress in language and speech sound production Improving social skills

Quicker help

Kindy teachers pretty good at detecting difficulties

The teacher is supportive of any extra work required. I've found that the teacher will often advocate for some teacher aide time or similar to complete my games and activities.

Identifies children at risk for speech, language and/or literacy difficulties

Parents are generally in agreement if referral is followed through.

Relationship and trust between the teacher and speech pathologist

If the teacher initiates the conversation, that's positive, but other than that there's not a lot of positives in leaving parents to follow up (as often it won't happen)

Teacher sees things the parents may have missed. Have formed close relationships with schools for referral

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Becoming more aware of importance of oral language as opposed to just speech sounds and stuttering. Keen to work together.
Better liasion with Sp Paths
The school is required to be involved in the process and the speech therapy/assessment is linked to educational outcomes.
Students are referred if they are not coping at school. Most teachers are aware that speech pathology intervention can be valuable in improving academic performance.
Pre-referral process of ensuring the teachers have discussed concerns with parents and have sufficient basic data to check that the referral is appropriate.
Good documentation
It is starightforward and direct; any chance of misommunication is quickly sorted out
We usually discuss the appropriateness of the referral and maintain regular communication regarding the child's progress.
sOme consistent processes.
Parents are directly involved in speech therapy issues
parents agree to referral
- Teacher's must first explain their concerns before child is referred - Teacher doesn't assume that child will be seen immediately (i.e. that there is a process which must be followed) They can have a good insight into how they are performing in comparison to their peers. Teachers may be able to ID students that have not previously been identified by their parents or other people as having communication difficulties. Teachers are informed. Reduction in inappropriate referrals.
Some teachers are excellent referees
INDICATES AWARENESS THAT SLP ASSESSMENT MIGHT BE/IS AN IMPORTANT FACTOR TO THE STUDENT SPEECH, LANGUAGE, LITERACY AND LEARNING ISSUES BROADER UNDERSTANDING OF FOUNDATIONS OF LEARNING AND IMPEDIMENTS TO LEARNING PROCESS.

- Parents are in control of whether they organise speech pathology or not, and parents who seek the service are therefore motivated to engage with it.

There is a team effort from the beginning of the process. Once assessment findings and recommendations are provided to the teacher, the student benefits from both speech therapy intervention and adjustments made in the classroom to support the student's learning process.

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teachers can speak with SLP at school - lunchtime

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Q3.3 How do you believe the current process could be improved?

If teachers had a better understanding of speech therapy and the services provided as well as red flags for referring. If speech pathologists were more easily accessible in NSW schools.
Making teachers aware of the importance of speech therapy
More in school work
Further training for teachers re how soon to refer
I had a recent experience where the kindergarten teacher involved last year had a wait and see approach. Apparently the other teachers at the school were very aware of the need for referral of a group of children and had encouraged the teacher to make the referrals. This didn't happen and the children were then referred early in year 1 instead when they'd already begun to shut down. Perhaps the supervisor of the stage should have a top down approach as well targeting children known more generally to be at risk.
The proposed phonological awareness/ phonics screening for all kindergarten children is a good idea. A standardised screening based on risk factors / indicators for concern developed by speech pathologists would also be useful.
Guidelines for teachers regarding when to refer. Training re same. Increased awareness re early reading intervention and SP role in the same. Increased awareness that SP do not just treat artic.
Training for teachers on aspects of speech and language to look for
Teachers directly refer children
More teacher training. Information and training seminars by speech pathologists.
Doesn't seem to be standard at all.
Universal screen or phonological assessment of identified kindetgarten child re n
Speech Pathologists and teachers need to work more closely together to improve the educational focus of the therapeutic intervention. There needs to be more speech pathologists employed by the Department of Education (NOT by individual schools) and they need to be seen as valuable members of a multidisciplinary team of professionals/educators

Greater education of teachers about: the difference between speech and language; the effects of speech impairments; the implications and effects of language disorders; what phonological awareness is; the effect of phonological awareness on speech and the development of literacy Teachers to be more clear about the outcomes they would like to see for the students in class.
Inclusion of other information on the student e.g. cognitive report as required; inclusion of checklists such as CELF-5 screener
Having routine screeners in school and earmarking those children who are borderline
I'm satisfied with it
Consistency. parent involvement
Schools need to be able to refer directly to speech pathologist who could see student at school
and implement intervention strategies there Teachers more proactive in organising referrals - Better training for teachers around what information is relevant & should be provided - Requiring more information from teachers/schools
Better education for teachers re what speech and language entail, re the norms we expect for their age group, better awareness of phonics and teaching these in the classroom. Training in how to support students with language difficulties. Education re EAL and how to complete
targeted teaching in order to ID if students are EAL or LD. More Speech Pathology time for intervention post referral.
A standardized approach across schools and pd for teachers re: reasons for referrals
Direct SLP contribution to undergraduate early childhood, primary and secondary teaching programs (as well as existing Postgrad SpecEd programs). Speech Pathology Australia SLP special interest group on education develops a profile of contact with schools. Local community clinicians work with private and develop a LOCAL referral package; private clinicians develop this independently. A checklist for the referral process be developed possibly in collaboration at tertiary teacher training level. SLP provide a checklist of feedback to the teacher as well as reports. A Principal that will embrace whole school education of parents and teachers.
- Kindergarten teachers could have more training, while studying at uni to become a teacher, about when a SP referral would be appropriate. There are many times when children are referred to SP when they are past Kindergarten, and they should have been referred in preschool or in Kindergarten. - Perhaps Kindergarten teachers would refer more often, when needed, if they felt more equipped to talk to parents about what speech pathology would involve and why it's different to what is available at school in class.
More PD opportunities should be provided in the schools where teachers can be addressed by speech therapists who specialise in literacy. This will equip teachers to make appropriate and timeous referrals.

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teacher education - when to refer & why

Q3.4 Do you have any other comments about the referral of kindergarten students by teachers to speech pathologists?

Many referrals are not made because of existing waiting lists or/and the perception that the referrals won't be acted upon in time

It is so hard with access - tif they fall under ed dept criteria, they may get a service. If not they need to go private. there are not enough private servies in the country and parents cannot fund it.

There is a a wide discrepancy in which teachers refer and which don't. Funding for schools to engage speech pathologists at schools would identify kids earlier and also raise teacher awareness of appropriate referrals

School counsellors need to be involved as well

Proactive enquiries regarding the range of service providers and their area of interest. Specific info provided to the clinician BEFORE and assesment whether by phone, email, hard copy would be an asset

- I think generally, Kindergarten teachers should err on the side of caution and if they have concerns which are apparent amongst a class full of other children, chances are there is something to be concerned about. Better to refer and then know that the child is within average range, rather than not refer in Kindergarten.

Early intervention is critical to support students with potential reading and spelling difficulties. Any students lagging behind by the end of term 1 should be referred either for a screening or full assessment depending on the severity of their presenting difficulties.