COMPLEX CONTEXTUAL INFLUENCES ON THE COMMUNICATIVE INTERACTIONS OF STUDENTS WITH MULTIPLE AND SEVERE DISABILITIES: A QUALITATIVE STUDY

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B.A. (Hons)

A thesis submitted to the School of Education, University of Newcastle, in partial fulfilment of the requirements for the degree of Doctor of Philosophy

January, 2012
STATEMENT OF ORIGINALITY

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.
ACKNOWLEDGEMENTS

This study is dedicated to my parents, Gaetano and Anna Maria De Bortoli, who have always nurtured in me a sense of social equity and respect for the dignity of all people, and encouraged my academic strivings.

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<td>MSD</td>
<td>Multiple and severe disabilities.</td>
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<tr>
<td>SLP</td>
<td>Speech-language pathologist or speech-language pathology.</td>
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<tr>
<td>AAC</td>
<td>Augmentative and Alternative Communication.</td>
</tr>
<tr>
<td>SSP</td>
<td>School for Special Purposes or special school.</td>
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<tr>
<td>SU</td>
<td>Support Unit in a mainstream school.</td>
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<tr>
<td>LSO</td>
<td>Learning Support Officer.</td>
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<td>NB</td>
<td>This term has replaced the use of the term teachers’ aide.</td>
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<td>TA</td>
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<td>NSW</td>
<td>New South Wales, Australia</td>
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<tr>
<td>ICF-CY</td>
<td>International Classification of Functioning, Disability and Health-Child and Youth version.</td>
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<tr>
<td>KLAs</td>
<td>Key Learning Areas.</td>
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<td>IEP</td>
<td>Individual Education Plan.</td>
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ABSTRACT

Although researchers have reported for more than two decades low frequencies of communicative interactions for students with multiple and severe disabilities (MSD), little is understood about reasons for the persistence of this situation. The purpose of this study was to explore reasons for the restricted communication access of these students, from the perspective of complexity theory which states that individuals, their activities and interactions are embedded within and influenced by complex systems. This thesis reports on research about the contextual factors influencing the communication opportunities of students with MSD. The study was conducted in four stages involving a total of 32 participants. Stage 1 involved interviews with 11 teachers working in segregated classrooms in metropolitan or regional areas, while in Stage 2 there were five teachers working in mainstream classrooms in rural schools. Stages 3 and 4 involved interviews with speech-language pathologists (SLPs) who visited students with MSD in different educational settings. Stage 3 involved eight SLPs based in metropolitan areas, whereas Stage 4 involved eight SLPs based in regional or rural areas. During two in-depth interviews, participants were each given the opportunity to talk about their perceptions and experiences of: (a) communicating with students with MSD, (b) supports and obstacles to communication opportunities for these students, and (c) professional development. Interviews were audio-taped and transcribed verbatim. Transcripts were subjected to thematic analysis and coded according to categories representing factors that acted as supports or obstacles to communication opportunities. Themes emerged from the relationships or interactions between the categories. Issues of rigour and credibility of the findings were addressed through triangulation of data from different groups of participants, verification through member checking, and inter-coder reliability measures. Participants identified a broad range of contextual factors, operating at a number of levels from individuals to society that influenced the communicative interactions of students with MSD. Results of the study suggested that the influences on students’ communication opportunities, and therefore reasons for restricted communication participation, are complex. These findings led to the development of a model for enhancing the communicative interactions of students with MSD that recommends changes at multiple, systemic levels. The findings also highlight several important areas for future research.
In recent decades it has become accepted that all students, including those with multiple and severe disabilities (MSD), can learn and communicate and are entitled to an education (Foreman, 2008). This belief reflects changing social attitudes towards human rights, equity and social justice and has been accompanied by legislation that guarantees the provision of educational services for students with MSD (Foreman, 2008; Hourcade, Pilotte, West & Parette, 2004; Mirenda, Iacono & Williams, 1990).

Students with MSD have been identified as having a severe intellectual disability associated with functioning at a developmental level below two years (Carnaby, 2007; Hostyn, Neerinckx & Maes, 2011a). In addition, these students have severe physical disabilities, and frequently sensory impairments, such as vision and/or hearing impairments (Foreman & Arthur, 2002; International Association for the Scientific Study of Intellectual Disabilities, 2009; Munde, Vlaskamp, Ruijssenaars & Nakken, 2009). These impairments tend to be accompanied by complex medical/health conditions (Carnaby, 2007; Foreman & Arthur, 2002; Munde et al., 2009), and dependence on others for assistance with activities of daily living, such as eating and drinking and hygiene care (Foreman & Arthur, 2002; Hostyn, Petry, Lambrechts & Maes, 2011b; International Association for the Scientific Study of Intellectual Disabilities, 2009).

Access to communicative interactions plays a central role in the educational participation and social inclusion, as well as quality of life, of students with MSD (Baumgart, Johnson & Helmstetter, 1990; Beukelman & Mirenda, 1992; Butterfield & Arthur, 1995; Butterfield, Arthur & Sigafoos, 1995; Calculator & Black, 2009; Downing, 2001, 2006; Foreman, Arthur-Kelly, Pascoe & Smyth-King, 2004; Mirenda et al., 1990; Sigafoos, 1999). Involvement in communicative interactions has been shown to have a positive effect on behaviour states of students with MSD, optimising their ability to engage with activities in the classroom and participate in communicative interactions (Arthur, 2004; Downing, 2001; Foreman et al., 2004; Hostyn et al., 2011b; Munde et al., 2009). Conversely, absence of communicative

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1 Parts of this literature review have been published in an international, peer-reviewed journal. A copy of this article is included in Appendix 1.
interactions increases the likelihood of passivity in students with MSD, thereby reducing the educational participation of these students (Arthur, 2003, 2004; Foreman et al., 2004).

However, students with MSD tend to have complex communication needs, and little or no functional speech (Baumgart et al., 1990; Beukelman & Mirenda, 1992; Grove, Bunning, Porter & Olsson, 1999; Mirenda et al., 1990; Butterfield, 1991; Rowland, 1990). According to Thomas’s (1999) definition, their impairment effects interfere with full participation in communicative interactions. For students with MSD cognitive, physical and sensory impairments mean that they do not have access to the full range of modes of communication available to others (Downing, 2001; Langley & Lombardino, 1987; Sigafoos & Iacono, 1993). The communicative behaviours of students with MSD tend to be characterised by pre-intentional, non-symbolic and often subtle and idiosyncratic forms that may include facial expressions, gestures, eye gaze, body movements, and vocalisations (Grove et al., 1999; Iacono, Carter & Hook, 1998; Langley & Lombardino, 1987; Sigafoos, 1999; Sigafoos, Roberts, Kerr, Couzens & Baglioni, 1994).

**BEST PRACTICES IN COMMUNICATION INTERVENTION FOR STUDENTS WITH MSD**

Despite these complex communication needs, researchers have recognised that the communicative behaviours of students with MSD, which may also include challenging behaviours, are valid forms of communication (Downing, 2001; Harding, Lindsay, O’Brien, Dipper, & Wright, 2011; Hourcade et al., 2004; Hostyn et al., 2011a; Mirenda et al., 1990; Siegel-Causey & Bashinski, 1997; Siegel-Causey & Ernst, 1989, Sigafoos, 1999; Sigafoos et al., 1994). Researchers have also recognised that students with MSD have the right not only to participate in communication but to develop or enhance their communication skills (Clarke, Newton, Griffiths, Price, Lysley, & Petrides, 2011: Mirenda et al., 1990; Siegel-Causey & Bashinski, 1997). This recognition raises the issue of best practices to address the rights of students with MSD. Definitions of best practice are, however, contested in the literature (Hutchins, Howard, Prelock & Belin, 2010), and Iacono and Cameron (2009) stated that practices in the augmentative and alternative communication (AAC) field are supported by a very limited evidence base. For the purposes of this study, notions of best practice are based on general agreement in the literature relevant to
communication intervention for students with MSD. Examples include broad agreement among researchers about the potential to enhance the communication skills of students with MSD, and the importance of intervention supporting students’ participation in their natural environments, as well as being family centred and culturally competent (Harding et al., 2011; Iacono & Cameron, 2009; Hostyn et al., 2011b; Siegel, Maddox, Ogletree, Westling, 2010).

Enhancing Students’ Communication Skills

The application of a developmental stages approach to communication has been used to demonstrate that the communication skills of students with MSD can be developed or enhanced (Butterfield & Arthur, 1995; Grove, Bunning, Porter, 2001; Hourcade et al., 2004; Hostyn et al., 2011b; Mirenda et al., 1990; Siegel-Causey & Ernst, 1989). According to this approach the communicative behaviour of students with MSD is analogous to that of typically developing infants. Researchers agree that students with MSD can progress from pre intentional to intentional communication (Butterfield & Arthur, 1995; Grove et al., 2001; Harding et al., 2011; Siegel-Causey & Ernst, 1989). Mirenda et al. (1990) recommend building on students’ existing communicative behaviours in preparation for more formal communication systems such as use of object symbols. The enhancement of students’ communication skills, and their development from pre intentional to intentional communication, requires contingent responding (Mirenda et al., 1990; Siegel-Causey & Bashinski, 1997). Hence, there is also consensus in the literature that communication partners play an important role in recognising and responding to the communicative behaviours of students with MSD, and supporting the enhancement of their communication skills (Harding et al., 2011; Sigafoos et al., 1994).

Functional Communication in Natural Contexts

Further, the facilitation of communication skills is considered to be most efficacious when it is functional and occurs within students’ natural contexts (Carter & Hotchkis, 2002; Grove et al., 2001; Harding et al., 2011; Hourcade et al., 2004; Langley & Lombardino, 1987; Mirenda et al., 1990). Students need to be provided with opportunities to make choices and requests, share interests, and participate in social interactions within routine, daily activities in the classroom and other parts of the school (Butterfield & Arthur, 1995; Hourcade et al., 2004; Siegel-Causey & Ernst,
Researchers have noted that the motivation to communicate and spontaneous communication by students with MSD are facilitated through the naturally occurring cues and reinforcers in daily situations (Carter, 2002; Carter & Hotchkis, 2002; Siegel-Causey & Bashinski, 1997; Siegel-Causey & Ernst, 1989). These recommended communication practices with students with MSD have emerged from a consensus that communication intervention in artificial situations, such as clinics, does not generalise or translate to students’ natural contexts in which social interactions actually take place (Abbeduto, Evans & Nolan, 2001). This highlights the crucial role played by teachers in fostering communication for students with MSD at school (Foreman et al., 2004; Harding et al., 2011; Hourcade et al., 2004).

THE ROLE OF TEACHERS IN THE CLASSROOM

Researchers agree that teachers have responsibility for interpreting and assigning meaning to their students’ behaviours, and responding to these as if they were communicative (Butterfield & Arthur, 1995; Foreman et al., 2004; Grove et al., 2001; Mirenda et al., 1990; Siegel-Causey & Bashinski, 1997). In order to make communication intervention functional and contextualised, teachers are required to create opportunities for their students to communicate, including providing choices or engineering the environment of the classroom to facilitate students’ participation (Carter & Hotchkis, 2002; Downing, 2001; Harding et al., 2011; Siegel-Causey & Bashinski, 1997; Sigafoos, 1999). It is recommended that teachers conduct ecological inventories in order to analyse naturally occurring activities in the classroom and identify the communication skills needed by students with MSD to participate (Downing, 2001; Sigafoos, 1999).

However, as a consequence of their impairments communicating may require much effort on the part of students with MSD (Downing, 2001; Grove et al., 2011). In addition, their limited means for communicating may be inadequate for meeting all their needs (Sigafoos & Iacono, 1993). Therefore students with MSD make additional demands of their teachers in terms of the time and skills required to: (a) interpret communicative behaviours, and (b) create opportunities for effective communication to occur (Calculator & Black, 2009; Downing, 2006; Hostyn et al., 2011a).

Researchers have reported that the complex communication needs of students with MSD may therefore predispose them to social exclusion and receiving few opportunities for communication (Arthur, 2004; Clarke et al., 2011; Harding et al.,
2011; Langley & Lombardino, 1987; Reichle, 1997; Rowland, 1990; Sigafoos & Iacono, 1993; Siegel et al., 2010; Stephenson & Linfoot, 1991). Yet it has also been observed that teachers can be effective at promoting communication with students with MSD (Harding et al., 2011; McCathren, 2000; Macmillan, 2008), and that there is a strong relationship between the opportunities for communication provided by teachers and the quantity of communicative behaviours displayed by their students (Rowland, 1990; Siegel-Causey & Bashinski, 1997; Tjus, Heimann & Nelson, 2001).

FREQUENCIES OF COMMUNICATIVE INTERACTIONS
Researchers have reported observed frequencies of communicative interaction between teachers and students with MSD in the classroom. Similar frequencies of communicative interaction have been reported in the literature over two decades of research (Arthur, 2003, 2004; Arthur, Foreman, Pascoe, Butterfield & Bennett, 1999; Foreman, Arthur-Kelly & Pascoe, 2007; Foreman et al., 2004; Houghton, Bronicki & Guess, 1987; Rowland, 1990; Sigafoos et al., 1994). This research began with Houghton et al.’s (1987) seminal paper in which they reported teachers responding to the potentially communicative behaviours of their students with severe disabilities 7-15% of the time observed. More recently Arthur (2003) and Foreman et al. (2004, 2007) reported minimal changes in this low frequency of interaction. Recently reported frequencies of communicative interaction between teachers and students with MSD ranged from 4.7% (Arthur, 2003) to 20.7% (Foreman et al., 2004) and 21.8% (Foreman et al., 2007) of the time observed. It is not clear whether the higher frequency of 21.8% (Foreman et al., 2007) represents significantly more communication taking place than the lower frequencies of 4.7% (Arthur, 2003) and the earlier reports of Houghton et al. (1987) or whether these are due in part to the code definitions employed. Nevertheless, researchers continue to interpret these frequency data with concern as indicating that students with MSD have too little access to communicative interactions (Arthur, 2003, 2004; Foreman et al., 2007; Foreman et al., 2004; Houghton et al., 1987; Rowland, 1990; Sigafoos et al., 1994).

LIMITED IMPLEMENTATION OF BEST PRACTICES
Arthur (2003, 2004) reported no communication between teachers and students with MSD for an average 76% of the time they were observed. Researchers have expressed concern that students with MSD are spending large amounts of time in the classroom
not engaged in activities or opportunities for learning (Arthur, 2004; Foreman et al., 2004). The findings indicate that some students with MSD have limited communication opportunities and educational participation (Arthur, 2004; Downing, 2006). Therefore there may be limited implementation of best practices in communication intervention and the education of students with MSD, and the consensus among researchers is that this situation requires remediation (Arthur, 2004; Arthur et al., 1999; Foreman et al., 2004; Houghton et al., 1987; Rowland, 1990; Sigafoos et al., 1994).

INFLUENCES ON IMPLEMENTATION OF BEST PRACTICES
Although observational studies have yielded important information about frequencies of communicative interaction, their purpose was not to explore potential reasons for these low frequencies. Nevertheless, the consistent recommendation across these studies has been for teachers to be provided with more education about communicating with students with MSD (Arthur, 2003, 2004; Foreman et al., 2004; Rowland, 1990; Sigafoos et al., 1994; Houghton et al., 1987). This recommendation suggests an assumption that low frequencies of communicative interactions are due to deficits in teachers’ knowledge and skills, such as poor responsiveness to students’ potentially communicative behaviours and failure to create opportunities for communication (Sigafoos, 1999). This assumption is not surprising given that the focus of frequency data has been on measuring the communicative behaviour of teachers as well as students.

Teachers’ Knowledge and Skills
There has been some research using questionnaires that has attempted to ascertain the role of teachers’ knowledge and skills in communicating with students with MSD (Arthur & Butterfield, 1993; Arthur, Butterfield & McKinnon, 1998; Arthur et al., 1999; Butterfield & Arthur, 1994; Chalmers, Carter, Clayton & Hook, 1998; Izen & Brown, 1991; McKinnon & Gordon, 1999). The teachers who participated in Arthur et al.’s surveys reported that they were less certain about interpreting the communicative behaviours of students with more severe disability who used informal systems than that of students with moderate intellectual disability (Arthur & Butterfield, 1993; Butterfield & Arthur, 1994; Arthur et al., 1999; Arthur et al., 1998). In other surveys, teachers reported that they lacked knowledge and skills required to
teach children with MSD (Izen & Brown, 1991), and perceived a need for further education about communication programming for students with MSD (Chalmers et al., 1998). While teachers may have gaps in their knowledge and skills, survey findings provide limited evidence that teachers experience difficulties communicating with students with MSD, and that such difficulties are the cause of the reported low frequencies of communicative interaction. The disability support workers in Forster and Iacono’s (2008) study, for example, talked about how their perseverance led to more successful communication with people with profound intellectual disabilities in supported accommodation settings.

Nevertheless, the consistent recommendation has been for teachers to be provided with greater opportunity for communication education in order to improve their knowledge and skills (Arthur & Butterfield, 1993; Chalmers et al., 1998; Izen & Brown, 1998; McKinnon & Gordon, 1999; Soto, 1997). It has been assumed that this would result in changes in teachers’ communication practices that would increase frequencies of communication for students with MSD (Arthur, 2003; Butterfield & Arthur, 1995; Grove et al., 2001; Mirenda et al., 1990; Rowland, 1990). The outcome of Arthur’s studies was the development of both a training manual and in-service programme for teachers (Arthur et al., 1998; Butterfield & Arthur, 1994).

Communication Education for Teachers

In teacher education studies, researchers have focused on increasing teachers’ knowledge and skills in facilitating the communication of students with severe disability (Butterfield & Arthur, 1994; McConachie & Pennington, 1997; Van vonderen, 2004) and dual sensory impairments (Bruce, 2002). Some studies also sought to determine whether communication education for teachers would result in changes in communicative interaction for students with MSD (Arthur et al., 1998; Bloomberg, West & Iacono, 2003; Foreman et al., 2007; McMillan, 2008; Nind, Kellet & Hopkins, 2001; Stephenson, Carter & Arthur-Kelly, 2011). These studies differed however in the model utilised for delivery of staff education.

A Traditional Approach to Professional Development

In one group of studies, researchers employed a workshop or in-service approach to delivery of information. Arthur et al. (Arthur et al., 1998; Arthur et al., 1999; Butterfield & Arthur, 1994) used both their education manual Creating Communicative Contexts (Butterfield, Arthur, Linfoot & Phillips, 1992) and an in-
service education programme (Butterfield & Arthur, 1994; Arthur et al., 1998) to assist teachers to develop their knowledge and skills in communication programming for students with MSD. Large-scale training group sessions were conducted in 10 centres around the state of New South Wales (NSW), Australia, and focused on informing teachers about how to implement the manual (Arthur et al., 1998). Almost a decade later, Foreman et al. (2007) replicated these protocols in three half-day sessions with six teachers and six learning support officers (LSOs) at The University of Newcastle, NSW in a study designed to see whether training led to changes in teacher behaviour.

While teachers reported increases in their knowledge and skills following communication education, Arthur et al. (1998) acknowledged that their evaluation of the programme did not include any measures of changes in teachers’ practice in the classroom. When Foreman et al. (2007) conducted post-training classroom observations they found that the teachers’ reported increases in knowledge and skills were not reflected in frequencies of communicative interactions in the classroom. They found no significant increases in communicative interaction for students with MSD following communication education for their teachers and LSOs. Consequently, they concluded that there was little evidence that the training had resulted in lasting changes in teachers’ communication with their students with MSD (Arthur, 2003; Foreman et al., 2007).

Similarly, teachers participating in small studies showed no significant improvement in their observed interaction skills after one (McConachie & Pennington, 1997) or two training sessions (Bruce, 2002), and reported intentions to make changes were not confirmed by post-training observations (Bruce, 2002). It was not possible to conclude whether there had been any changes in communicative interactions for the teachers and students in Nind et al.’s (2001) study due to the absence of pre-training information.

It appears, therefore, that this approach to improving teachers’ knowledge and skills in communication has had limited impact on the frequency of communicative interactions for students with MSD (Foreman et al., 2007). The outcomes of these studies indicate that a focus on increasing teachers’ knowledge and skills alone is unlikely to be sufficient to increase the frequency of communicative interactions with students with MSD (Arthur, 2003, 2004; Butterfield & Arthur, 1994; Foreman et al., 2007; McConachie & Pennignton, 1997; Rowland, 1990). The education programmes
reported in these studies were conducted outside the context in which teachers communicate with their students. One of the reasons for the limited impact may therefore have been that the programmes did not take into account the potential impact of the educational context on the frequency of communication.

**An Emergent Model for Professional Development**

In another group of studies researchers worked with individual teachers in their classrooms over extended time, and explored the impact of this process on the frequency of communicative interactions for students with MSD. All researchers reported increased frequencies as a result of their interventions. Stephenson et al. (2011) worked with three teachers of students with MSD and complex communication needs in special schools (SSPs) in a metropolitan area. The researchers collaborated with the teachers about the communication strategies to be used with specific students. They then conducted six to eight meetings or visits with individual teachers to either demonstrate and provide feedback while the teacher implemented the strategies, or to have collaborative discussion while viewing video recordings of the teacher implementing the strategies in the classroom. Although results were not presented as percentages, the researchers reported significant increases in communication opportunities provided by the teachers following this process.

McMillan (2008) also worked with four teachers of students with severe disabilities in their segregated classrooms. She collaborated with individual teachers on creating opportunities for Speech Generating Device (SGD) use during classroom activities, and provided feedback on the teacher’s use of strategies. Teachers were provided with between 31 to 52 sessions. In the final two follow-up sessions students were observed to maintain increased frequencies of device use. Van vonderen (2004) also provided evidence for the efficacy of providing feedback to staff, over a 14 week period, while they practised new communication strategies with students with intellectual disabilities in the classroom.

Bloomberg et al. (2003) reported similar results although they trained disability support workers of young people with MSD in residential and day services. Their programme was conducted over 8 months and took a collaborative problem-solving approach in which staff worked together, and with the researchers who visited them in their particular settings. The researchers reported significant increases in communicative interactions between disability support workers and the people with
MSD. They also reported increased participation by people with MSD in social activities in the community.

On the basis of their findings these researchers arrived at four main conclusions. Firstly, professional development should occur in the particular contexts in which communication takes place (Kaufman & Ring, 2011; McMillan, 2008; Stephenson et al., 2011). Secondly, workshops and in-services are not sufficient to change practices because staff members require: (a) on-going support, including demonstration; (b) opportunities to practise skills and strategies, and (c) feedback while using strategies in the classroom (McMillan, 2008; Stephenson et al., 2011; Van vonderen, 2004). The third conclusion was that professional development is a collaborative process that requires networking between staff in a particular context and in different contexts (Bloomberg et al., 2003; Nind & Thomas, 2005; Stephenson et al., 2011). Finally, professional development requires support within the school or particular context in which staff and people with MSD are located (Stephenson et al., 2011). Bloomberg et al. (2003) recommended that training be directed at whole teams, suggesting the need for broader organisational support.

These conclusions are consistent with an emergent model for schools that reconceptualises professional development as a process rather than an event (Little & Houston, 2003). According to this model, teachers identify their particular knowledge and skill needs, and implementation of practices within the classroom is supported at a number of levels (Little & Houston, 2003). It is not only supported within the school, but also from district and regional staff who provide mentoring and coaching for teachers in the classroom. In addition, networks are created for teachers to continue supporting each other and learning together (Little & Houston, 2003).

An implication of the findings of professional development studies and Little and Houston’s (2003) model is that the implementation of communication practices within classrooms may be mediated by interaction between teachers’ knowledge and skills and broader contextual factors, such as supports within the school context and access to other professionals (Bloomberg et al., 2003; Forster & Iacono, 2008; Kaufman & Ring, 2011; McMillan, 2008; Stephenson et al., 2011; Van vonderen, 2004). Therefore, there are likely to be reasons other than, or in addition to, deficits in teachers’ knowledge and skills, for the low frequencies of communicative interactions reported for students with MSD (Kent-Walsh & Light, 2003; Soto, 1997; Soto, Muller, Hunt & Goetz, 2001).
Other Potential Influences on Implementation of Best Practices

There has been some research suggesting the potential role of factors in addition to teachers’ knowledge and skills that may influence communication with their students (Kent-Walsh & Light, 2003; Soto, 1997; Soto et al., 2001). These include teachers’ attitudes, perceptions and beliefs and broader contextual factors, such as the type of educational setting and collaboration with speech-language pathologists (SLPs) (Forster & Iacono, 2008; Hastings, 1997; Harding et al., 2011; Smidt, Balandin, Sigafoos & Reed, 2007).

Teachers’ Attitudes, Perceptions and Beliefs

Soto and colleagues, using both survey and focus group methodology, identified a relationship between teachers’ attitudes, perceptions and beliefs and their willingness to use AAC with their students in mainstream classrooms (Soto, 1997; Soto et al., 2001; Soto and Goetz, 1998). Important among these were teachers’: (a) expectations of their students’ abilities to learn to communicate, (b) beliefs about their own ability to influence their students’ communication, (c) attitudes towards communication intervention for students who use AAC, and (d) perceptions of SLPs’ role.

These findings suggest that teachers’ inaccurate perceptions of their students’ abilities and negative attitudes towards communication intervention and collaboration with SLPs, for example, could be factors contributing to low frequencies of communicative interaction. McCarthy and Light (2005, p.41) comment that negative attitudes “may influence people’s willingness to interact with individuals who use AAC” thereby limiting their opportunities for communication.

Potential relationship between teachers’ attitudes, perceptions and beliefs and their communication practices. Research suggests a relationship between communication partners’ attitudes and their communication practices with people who use AAC (McCarthy & Light, 2005). Teachers who participated in a survey also identified their attitudes as one of the factors mediating the implementation of best practices in the education of students with MSD (Chalmers et al., 1998). Researchers have stated that communication partners tend to have less favourable attitudes towards people who use non-symbolic methods of communication, such as body movements, facial expressions and vocalisations, than towards people who use symbolic systems such as electronic devices (Beck, Thompson, Clay, Hutchins, Vogt, Romaniak, & Sokolowski, 2001; Downing, 2001). Further, it is argued that attitudes such as low expectations for communication, can lead to behaviours that restrict or act
as barriers to communication opportunities for students (Beck et al., 2001; Downing, 2001; Grove et al., 2001; Mirenda et al., 1990). While it is assumed that changing attitudes can affect changes in communication practices, McCarthy & Light (2005) stated that the relationship between attitudes towards people who use AAC and the behaviour of potential communication partners is complex and requires further research.

**Interactions between attitudes, perceptions and beliefs and other factors.**

Findings reported in the literature suggest that the relationship between attitudes and practices is complex partly because individuals’ attitudes, perceptions and beliefs interact with other contextual factors. An example of such an interaction is the potential impact of attitudes, perceptions and beliefs on the outcomes of communication education for staff (Beck et al., 2001; Hastings, 1997; Ingvarson et al., 2005; McCarthy & Light, 2005; Smidt et al., 2007; Soto & Goetz, 1998). Researchers have found that staff attitudes and beliefs must be addressed, in addition to their knowledge and skills, in education programmes designed to change practices with people who use challenging behaviour (Hastings, 1997; Smidt et al., 2007).

Understanding attitudes is also considered important for designing appropriate communication education for teachers aimed at changing their communication practices (Beck et al., 2001; McCarthy & Light, 2005). Further, it appears that without an understanding of the issues that may influence teachers’ attitudes, perceptions and beliefs, communication education may not be effective in changing teachers’ practices in the classroom (Beck et al., 2001; Hastings, 1997; McCarthy & Light, 2005; Soto & Goetz, 1998).

**Influences on teachers’ attitudes, perceptions and beliefs.** While prolonged contact with people with severe disabilities is reportedly the factor most likely to produce positive attitudes in communication partners (McCarthy & Light, 2005), this may not be sufficient to increase opportunities for communication. There may be other contextual factors that interact with teachers’ attitudes to mediate the impact on their communication practices with their students (Beck et al., 2001; Hastings, 1997; McCarthy & Light, 2005; Soto & Goetz, 1998). Kaufman and Ring (2011, p.52), for example, state that “socio-environmental” factors in a school influence teachers’ attitudes. However, this influence is multi-directional in that teachers’ attitudes also influence a school’s “socio-environmental” features (Kaufman & Ring, 2011).

Hastings (1997) recommended investigating the potential impact on practices of
workplace cultures, and the rules, regulations and policies of organisations. Such contextual factors could act to strengthen or weaken the relationship between staff attitudes and their practices with people who use challenging behaviour (Hastings, 1997).

**Broader Contextual Factors**

Contextual factors identified by researchers as potentially influencing the communicative interactions of students with MSD include the educational setting and collaboration between teachers and SLPs.

*The influence of the educational setting.* Foreman et al.’s (2004) findings suggest the type of educational setting may be a factor that has an influence on the frequency of communicative interactions for students with MSD. While researchers acknowledge that students with MSD have a high level of support needs in mainstream educational settings (Downing, 2001; McKinnon & Gordon, 1999), they also agree that these settings foster increased communication for students with MSD, as opposed to segregated settings (Browder, 1997; Downing, 2001).

The potential benefits of mainstream educational settings for students with severe disabilities have been well documented (Carter, Hughes, Guth, & Copeland, 2005; Downing, 2001, 2006; Hunt, Soto, Maier & Doering, 2003; Kent-Walsh & Light, 2003; Soto et al., 2001). Mainstream educational settings are believed to provide a greater availability of naturally occurring opportunities for communicative interactions than in segregated settings (Browder, 1997; Butterfield & Arthur, 1995; Downing, 2001; Mirenda et al., 1990). Specifically, there is a greater availability of potential communication partners to support interactions in mainstream educational settings (Downing, 2001; Mirenda et al., 1990).

In the past 20 years, researchers have suggested that the presence of peers without disabilities in mainstream school settings may offer a more favourable context for enhancing the frequency of communicative interactions for students with MSD (Arthur-Kelly, Bochner, Center & Mok, 2008; Calculator, 2009; Houghton et al., 1987; Siegel-Causey & Bashinski, 1997). Peers without disabilities potentially provide many more naturally occurring opportunities for interaction than do peers with disabilities (Butterfield & Arthur, 1995). Segregated educational settings may therefore limit opportunities for communication by limiting communication partners to primarily teachers (Butterfield & Arthur, 1995; Mirenda et al., 1990).
Frequencies of communicative interaction in different educational settings.

The frequency data reported earlier were recorded in segregated educational settings. However, researchers have also investigated the level of engagement and frequency of communication for students with severe disability and MSD in different educational settings (Foreman et al., 2004; Helmstetter, Curry, Brennan & Sampson-Saul, 1998; Sigafoos et al., 1994). Research with primary-aged students with MSD in mainstream classrooms has, however, produced mixed results.

Foreman et al. (2004) found that students with MSD spent significantly more time involved in communicative interactions in mainstream classrooms than in segregated classrooms. They reported that students in mainstream classrooms were involved in communicative interactions 49% of the time observed, compared to 20.7% in segregated classrooms. In the mainstream classrooms, teachers spent only 3.7% of the time observed communicating with the students with MSD. LSOs were the main communication partners, followed by peers without disabilities, who communicated with the students with MSD more frequently than did the class teacher (Foreman et al., 2004). The researchers reported that in these classrooms there was a full time LSO for each student with MSD and more than 20 peers with sophisticated verbal communication skills. The researchers speculated that in these mainstream classrooms, the LSOs and peers without disabilities provided many opportunities for communication.

By comparison, the students with MSD in segregated classrooms (in special schools) spent more time with no communication partner present than did the students in mainstream classrooms (Foreman et al., 2004). In the segregated classrooms, teachers were the main communication partners for students with MSD and they spent significantly more time providing opportunities for communication for the students than did the teachers in mainstream classrooms (Foreman et al., 2004). However, one teacher and one LSO were required to attend to all the complex personal care needs of six students with MSD, and communicate with each student individually. All the students in these classrooms had complex communication needs, and therefore the students with MSD had few potential communication partners. The students in segregated classrooms also spent much more time not engaged in activities than did the students in mainstream classrooms (Foreman et al., 2004).

In contrast to these findings, Helmstetter et al. (1998) observed that students were more actively engaged in segregated classrooms than mainstream classrooms.
Like Foreman et al. (2004), they found that students with MSD showed limited engagement with the class teacher in mainstream classrooms. In this setting, students with MSD were actively engaged only when interacting on a one-to-one basis with a LSO or a peer. However, some students with MSD had no or very little time with a LSO. In addition, the predominant instructional practice in the mainstream classrooms was whole group lessons, which afforded students with MSD few opportunities for interaction with peers without disabilities. Researchers have claimed also that students with severe disabilities in mainstream high schools continue to have limited engagement in classroom activities, and that the frequency of communicative interactions remains low (Carter & Hughes, 2006; Carter et al., 2005; Downing, 2006; Hughes, Copeland, Wehmeyer, Agran, Cai, & Hwang, 2002).

The findings of Sigafoos et al. (1994) were different again to those reported by Foreman et al. (2004) and Helmstetter et al. (1998). Sigafoos et al. found that the frequencies of opportunities for communication offered by teachers in special education settings (14% of the time observed) were not statistically different from those in a mainstream day care centre (15% of the time observed). Therefore, the researchers suggested that the observed provision of opportunities for communication by teachers in segregated settings may be normative. They argued however, that children with MSD may need more opportunities for communication in order to facilitate functional communication because of their complex communication needs.

Researchers have suggested that segregated settings may provide too few opportunities to facilitate functional communication for students with MSD (Foreman et al., 2004; Sigafoos et al., 1994). However, there is also agreement that, while there may be increased opportunities for communicative interactions in mainstream settings, physical placement alone is not sufficient to ensure increased access to communicative interactions for students with intellectual or physical disabilities (Calculator, 2009; Cutts & Sigafoos, 2001; Downing, 2006; Hughes et al., 2002; Kent-Walsh & Light, 2003). The inconsistent findings reported have lead researchers to conclude that there may be a range of complex factors, including contextual factors, influencing the communication of students with MSD in mainstream school settings (Arthur-Kelly et al., 2008; Cutts & Sigafoos, 2001; Helmstetter et al., 1998).

Schmitt and Justice (2011) stated that schools are complex contexts with multiple inter-dependent features, and there has been little research about the impacts of these features on students with communication disorders. They identified a need
for greater understanding about “the broader context of the learning environment” (Schmitt & Justice, 2011, p.5). Studies conducted in inclusive settings with teachers of students who use AAC are also suggestive of the value of investigating the influence of other contextual factors on the communicative interactions of students with MSD.

**Studies about the inclusion of students who use AAC.** A few studies (Kent-Walsh & Light, 2003; Soto, 1997; Soto et al., 2001) have explored factors that support or conversely act as barriers to the successful inclusion of students who use AAC systems. The teachers who participated in these qualitative studies identified a broad range of contextual issues, including: (a) the availability of time and resources, such as assistive technology, for implementing communication programmes; (b) the availability of LSOs, (c) teamwork and opportunities for collaboration with other teachers and SLPs, (d) the culture and degree of support within the school and educational district, (e) the attitudes of other staff, (f) the role of peers who do not use AAC, and (g) access to appropriate education and practical skills (Kent-Walsh & Light, 2003; Soto, 1997; Soto et al., 2001).

Based on the findings of their studies, these researchers made recommendations for supporting both students who use AAC in mainstream classrooms and their teachers. These recommendations included: (a) adequate time for planning, preparation, collaboration and education; (b) collaboration with other teachers and professionals, (c) adequate resources including funding for assistive communication technology, and (d) philosophical and administrative support from the school and the education department (Kent-Walsh & Light, 2003; Soto, 1997; Soto et al., 2001).

The students who were the indirect focus of these studies, however, did not necessarily have MSD. Other researchers have investigated teachers’ perceptions of factors influencing the implementation of best practice in the education of students with MSD. These researchers also recognised that a range of contextual issues may mediate teachers’ ability to implement best practice, including communication practices, in the classroom (Carter, 2002; Chalmers et al., 1998; Forster & Iacono, 2008; Hastings, 1997; Smidt et al., 2007).

**Implementation of best practice in the education of students with MSD.** In their responses to a survey, teachers indicated that they were aware of, and agreed with, best practices regarding the education of students with MSD (Chalmers et al.,
However, they also identified barriers to the implementation of best practices. Findings suggest that factors such as staffing, time allocations, availability of funding for resources, availability of therapy services, and the type of educational setting may mediate the ability of teachers to facilitate the educational participation and create communication opportunities for students with MSD (Carter, 2002; Chalmers et al., 1998).

Other researchers have also suggested issues that may influence communication opportunities for students with MSD, and people with MSD in residential and day centres. These include: (a) staff experience and rapport with people with MSD (Forster & Iacono, 2008); (b) time allocation for staff to engage people with MSD in communicative interactions (Forster & Iacono, 2008); (c) collaboration and collegiality, including the availability of SLP services (Butterfield & Arthur, 1994; Downing, 2001; Izen & Brown, 1991; Mirenda et al., 1990); (d) the variety of potential communication partners, including peers without disabilities (Arthur, 2003; Butterfield & Arthur, 1995; Downing, 2001; Siegel-Causey & Bashinski, 1989); (e) different educational settings (Arthur, 2003; Butterfield & Arthur, 1995; Downing, 2001; Foreman et al., 2004; Izen & Brown, 1991; Langley & Lombardino, 1987); (f) access to resources, including assistive technology (Izen & Brown, 1991); (g) the degree of support in the school environment or organisation (Butterfield & Arthur, 1994; Izen & Brown, 1991); and (h) government policies and social discourses about disability (Forster & Iacono, 2008).

Therefore the findings from different studies involving teachers and disability support workers suggest that there may be a range of influences on the communication opportunities of: (a) students who use AAC in mainstream classrooms, (b) students with MSD in a variety of educational settings, and (c) people with MSD in residential and day centres. One of the common findings among these studies has been the potential influence of collaboration between teachers and SLPs on the participation of students in communicative interactions and educational activities.

*Communication intervention and collaboration.* Collaboration between teachers and SLPs has been identified as one of the contextual factors or processes influencing the participation of students with severe disabilities and students who use AAC in mainstream classrooms (De Paepe & Wood, 2002; Hunt et al., 2003; Giangreco, 2000; Kent-Walsh & Light, 2003; Knackendoffel, 2005; Mathisen,
Arthur-Kelly, Kidd, & Nissen, 2009; Sonnenmeier, McSheehan & Jorgensen, 2005; Soto, 1997; Soto et al., 2001). However, researchers report disparity between the value SLPs afford to collaboration, and their self-disclosed actual practices (Siegel et al., 2010; Iacono and Cameron, 2009).

Researchers have surveyed and interviewed SLPs working in mainstream and segregated school settings (De Paepe & Wood, 2002; Hartas, 2004; Hutchins et al., 2010; Keefe & Moore, 2004; Siegel et al., 2010; Tollerfield, 2003; Wright & Kersner, 1999) and early childhood settings (Iacono & Cameron, 2009). The participating SLPs worked with students with severe disabilities (Siegel et al., 2010), physical disabilities (Tollerfield, 2003; Wright & Kersner, 1999), a range of communication difficulties (Hartas, 2003; Hutchins et al., 2010); and in Iacono and Cameron’s (2009) study, pre-schoolers with MSD.

The SLPs were asked about factors perceived to influence the implementation of best practice, including ACC. There were five main factors identified. The first was SLPs’ knowledge and skills and access to professional development (Iacono & Cameron, 2009; Siegel et al., 2010). Secondly, SLPs identified the attitudes, perceptions and beliefs of other professionals (De Paepe & Wood, 2002; Giangreco, 2000; Iacono & Cameron, 2009). The SLPs in Iacono and Cameron’s (2009) study reported that the negative attitudes of early childhood staff and other SLPs, about the capacity of children with MSD to use AAC, was a barrier to communication intervention.

The third factor identified by SLPs involved features of the student’s school setting or early childhood context. These included goals and priorities regarding communication (Iacono & Cameron, 2009, Wright & Kersner, 1999), and allocation of time for teachers to participate in collaborative practices (Keefe & Moore, 2004; Soto et al., 2001). Another factor identified was the extent of organisational support for both SLPs and teachers to implement best practice and collaborate with each other (Iacono & Cameron, 2009; Law, Lindsay, Peacey, Gascoigne, Soloff, N., Radford, & Band, 2002). SLP service delivery structures were perceived to influence the amount of time SLPs could spend in schools collaborating with teachers (Keefe & Moore, 2004; Soto et al., 2001) and implementing best practice (Hutchins et al, 2010; Iacono & Cameron, 2009). Hartas (2004) suggested that collaboration between teachers and SLPs is embedded within an organisational structure. This structure can support or
hinder collaboration, and therefore also the potential impact of collaboration on communication outcomes for students (Hartas, 2004).

The final factor identified by the SLPs in these studies was obstacles in the home context and parental attitudes towards AAC and communication intervention (Clarke et al., 2011; Iacono & Cameron, 2009). The SLPs in Iacono and Cameron’s (2009) study reported that parents’ negative attitudes towards AAC were a barrier to communication intervention for their children.

Therefore, the findings of these studies suggest that while communication intervention, and specifically collaboration between teachers and SLPs, is a process perceived to influence the educational participation of students who use AAC in mainstream classrooms and other students in special schools, the implementation of effective collaboration may be mediated by other contextual factors. The findings reviewed earlier suggest that there may be complex interactions among contextual factors and processes that produce effects on the participation of students with MSD in learning activities and communication. Examples include interactions between teachers’ attitudes, perceptions and beliefs and professional development opportunities (Beck et al., 2001; Hastings, 1997; Ingvarson et al., 2005; McCarthy & Light, 2005; Smidt et al., 2007; Soto & Goetz, 1998), and between professional development for teachers and support within the school context and from other professionals (Bloomberg et al., 2003; Forster & Iacono, 2008; Kaufman & Ring, 2011; Little & Houston, 2003; McMillan, 2008; Stephenson et al., 2011; Van vonderen, 2004).

Despite findings suggesting the potential role of contextual factors on students’ communication opportunities, little is fully understood about reasons for the persistence of low frequencies of communication between teachers and students with MSD. There has been little research exploring contextual factors influencing the communication opportunities of students with MSD. Researchers recognise that there may be interactions between the individual characteristics of students with MSD and various factors in their environment (Arthur-Kelly et al., 2008; Carter, 2002), and that such factors may also influence communication intervention for these students (Schmitt & Justice, 2011). However, there is little understood at present about these interactions and environmental factors.

Little is known, for example, about teachers’ views of the contextual issues influencing their ability to communicate with students with MSD. Despite their
potential support role, little is also known about SLPs’ views of communication intervention with students with MSD, and contextual issues influencing their ability to support the communication of these students. Therefore, there is a need to investigate whether teachers of these students, and the SLPs supporting them, also identify a broad range of factors as potential reasons for low frequencies of communication in the classroom.

SUMMARY
This chapter has reviewed research conducted over two decades reporting consistently low frequencies of communicative interactions between students with MSD and their teachers. Researchers have expressed concern about these findings because they suggest limited implementation of best practice in the education and communication intervention for students with MSD.

Further, studies on the impact of communication education for teachers on frequencies of communicative interaction with their students have produced mixed results. Researchers who reported the most promising findings employed collaborative approaches with support within the school context. These findings suggest that professional development for teachers and the implementation of best practice may be influenced by other contextual factors.

Studies were reviewed involving teachers of students who use AAC in mainstream classrooms. Findings suggested that there may be a range of factors influencing the educational participation and communication opportunities of these students. These included staff attitudes, perceptions and beliefs and broader contextual factors, such as the school setting, collaboration with SLPs, and organisational structures. Findings from studies reviewed also suggested that there may be complex interactions between factors, for example between features of the school context and collaboration between teachers and SLPs.

Finally, it was argued that little is understood about potential reasons for the reported low frequencies of communication between teachers and students with MSD and why they remain relatively unchanged. There has been little research about contextual factors influencing the communication opportunities of students with MSD. In the following chapter, existing conceptual frameworks for investigating the communicative interactions of students with MSD are reviewed. This is followed by a discussion of the conceptual framework for this study.
CHAPTER 2
CONCEPTUAL FRAMEWORK

Researchers recognise that there may be a range of issues influencing the communicative interactions of students with MSD of which there is little fully understood (Arthur et al., 2008; Carter, 2002; Carter & Hotchkis, 2002). Even though there is recognition of the place of environmental variables (Carter, 2002) and contextual factors in the communication of students with MSD (Abbeduto et al., 2001; Arthur-Kelly et al., 2008; Grove et al., 2001; Hourcade, et al., 2004; Mirenda et al., 1990; Siegel-Causey & Bashinski, 1997), little has been explored beyond the role of the communication partner and engineering the environment of the classroom (Carter, 2002), and the type of educational setting. Existing conceptual frameworks of communication intervention for students with MSD do, however, recommend consideration of the context in which communicative interactions are embedded (Arthur-Kelly et al., 2008; Mirenda et al, 1990; Siegel-Causey & Bashinski, 1997).

EXISTING CONCEPTUAL FRAMEWORKS FOR THE COMMUNICATIVE INTERACTIONS OF STUDENTS WITH MSD

The Participation Model (Rosenberg & Beukelman, 1987), the Tri-Focus Framework (Siegel-Causey & Bashinski, 1997) and the most recent model by Arthur-Kelly et al. (2008) all begin with the individual characteristics of the student, and then proceed to move beyond the individual to discuss aspects of the context in which the student’s communicative interactions are embedded.

These frameworks propose that the individual characteristics of the student interact or are interdependent with other factors. The first of these is the communication partners; their attitudes, and skills and knowledge regarding communicating with students with severe disabilities (Arthur-Kelly et al., 2008; Rosenberg & Beukelman, 1987; Siegel-Causey & Bashinski, 1997). The individual characteristics of the student and the communication partner’s skills in turn interact with the environmental context (Siegel-Causey & Bashinski, 1997) or contextual factors (Arthur-Kelly et al., 2008) in which their communicative interactions are embedded.
Contextual factors are defined as the settings in which communicative interactions take place, such as home, school and community (Arthur-Kelly et al., 2008; Siegel-Causey & Bashinski, 1997). In the school setting, contextual factors operate at the level of the classroom and the school. The social composition of the class and school and the number and proximity to peers and adults (Arthur-Kelly et al., 2007; Siegel-Causey & Bashinski, 1997) are seen as factors that influence access to potential communication partners. The level and types of activities provided are also viewed as factors that influence opportunities for communication (Arthur-Kelly et al., 2008; Siegel-Causey & Bashinski, 1997). Rosenberg and Beukelman (1987) also talk about the influence of segregated classrooms on access to opportunities for communicative interactions (Mirenda et al., 1990). Findings regarding these contextual factors were reviewed in Chapter 1.

On examining the communication of students with severe disabilities, the authors of these frameworks have proposed moving beyond a focus on the characteristics of the individual student. It appears, however, that the definitions of environment, external variables, and contextual factors are limited to communication partners and the classroom and possibly the school level. The focus is clearly on the role of communication partners and engineering the classroom environment to support communication (Carter, 2002; Carter & Hotchkis, 2002). The current research agenda appears to be largely operating from a limited definition of contextual factors.

It appears that there may be a broader range of factors that influence the communicative interactions of students with MSD than is reflected in the definitions currently employed in the research. Little is understood, however, about these other contextual factors. Little is known, for example, about how schools as systems in which communication takes place, actually influence the communicative interactions of students with MSD (Schmitt & Justice, 2011).

The preliminary findings of the studies referred to in Chapter 1 with students who use AAC in inclusive settings (Kent-Walsh & Light, 2003; Soto, 1997; Soto et al., 2001) and students with MSD in different educational settings (Foreman et al., 2004) support the need to investigate the potential impact of broader contextual factors. The range of factors that may constitute influences on the communicative interactions of students with MSD, while including, may actually be broader than the definitions utilized in the frameworks presented to date. The role of factors at societal
and national levels is discussed, prior to contemporary models for conceptualising and investigating access to communicative interactions for students with MSD.

**SOCIAL DISCOURSES ABOUT DISABILITY**

Rosenberg and Beukelman (1987) proposed a potential influence on access to opportunities for communicative interactions, of societal attitudes about the capacity of people with severe intellectual disabilities to communicate (Mirenda et al., 1990). Social discourses about disability clearly exist (Grove et al., 2001). Oliver (1990, p.19) stated that disability as a category “is culturally produced and socially structured”.

**Discourses about Disability as Socio-Cultural Constructions**

The causes of impairment may themselves vary from culture to culture. For example, in developing countries, poverty tends to be a major cause of impairment whereas in developed, industrialised countries advancements in medical technologies have resulted in the survival of children with MSD (Oliver, 1990). The ways that people define, talk about, respond to and experience disability are also cultural constructions (Thomas, 1999). They are shaped by particular societies with their distinctive social structures, and so will vary from one society to another.

Social discourses about disability are therefore situated in place and time. Anthropologists have found that the predominant beliefs about disability that exist in modern, developed, industrialized societies are not universal (Oliver, 1990). The focus of this discussion is discourses about disability in industrialized societies such as that of Australia. Discourses about disability are discussed here in relation to their potential influence on the communicative interactions of students with MSD.

**The Medical Model of Disability**

The dominant, or prevailing, discourse about disability in industrialized societies has been a medical/deficit model of disability (Finkelstein, 1980; Oliver, 1990). The assumptions underpinning this belief system include: (a) that people with disabilities are not “normal” (Oliver, 1990; 1996), (b) disability is the direct result of the individual’s cognitive and/or functional limitations, and (c) the individual’s cognitive and/or functional limitations are a problem necessitating medical intervention (Oliver, 1990; 1996). These assumptions are being questioned in the literature and by
organisations such as the United Nations (Grove et al., 2003; United Nations, 2007) and the World Health Organisation (World Health Organisation, 2001, 2007).

**Critiques of the Medical Model**

In recent decades, the medical model of disability has come under increasing scrutiny and criticism. The major criticisms are aimed at the situating of disability within the individual (Finkelstein, 1980; Oliver, 1990, 1996; Thomas, 1999). According to the medical model, a person’s impairment is the disability, or is the direct cause of the disability. There is no separation of impairment and disability. One of the consequences of this view has been that research and intervention have focused at the individual level, and people with disabilities have been made responsible for the activity limitations that they experience (Oliver, 1990).

A second consequence of the medical model has been the deflection of attention away from the attitudinal, social and physical environment, and the participation restrictions imposed by environmental factors in the society (WHO, 2007). Therefore, the resulting focus on treating the individual has deflected attention away from changing the environment to foster communication access.

**Influences of the Medical Model**

The medical model of disability has had an impact on many levels of society, including: (a) social policies and legislation, (b) social structures and practices (institutions), (c) attitudes, and (d) interpersonal interactions (Thomas, 1999). Arguably the most profound influence of the medical model of disability has been its translation into social policy and legislation that created social exclusion for people with disabilities (Thomas, 1999). This includes the institutionalization of living arrangements and segregated educational provision (Oliver, 1990).

It also appears that these different levels of society interact in multi-directional ways. The medical model may influence the attitudes and behaviour of individuals. However, the attitudes and behaviour of individuals may also act to sustain discourses about disability and practices which restrict the participation of people with disabilities in activities (Mirenda et al., 1990). Segregated education, for example, is viewed as a persistent institution of the medical model of disability, and also one of the main vehicles for perpetuating the social exclusion of people with disability (Finkelstein, 1980; Iacono et al., 1990; Oliver, 1996). Researchers continue to find that legislative support for the principle of inclusive education is not accompanied by resources for implementation (Allan, 2008).
Professions such as physiotherapy, occupational therapy and speech-language pathology also emerged from this model, to provide treatments for people with disabilities (Finkelstein, 1980; Oliver, 1990, 1996). The medical model of disability may have an impact on the attitudes of professionals such as SLPs, as well as the broader public. Individuals’ attitudes, perceptions and beliefs emerge within a broader context that includes particular discourses about disability and structures such as the education system that continue to provide segregated education (Soto et. al., 2001). Workers as well as researchers who are “doing things for or to” (Finkelstein, 1980, p.6) people with disabilities are not immune from attitudes that emerge within the contexts in which they live and work. Professionals who work with students with MSD, such as teachers and SLPs have been trained and work in organisations that arguably have strong historical connections to the medical model (Oliver, 1996). Woodcock and Tregaskis (2008) point out that professionals may continue to operate within the medical model of disability. The ways in which this particular discourse influences professionals’ practices may act as barriers (Woodcock & Tregaskis, 2008), for example, to collaboration with families or other professionals and to students’ opportunities for communication. The parents of children with disabilities, who participated in Woodcock and Tregaskis’ (2008) study encountered professionals such as SLPs who held stereotypical views of their children.

It is possible that as a prevailing discourse about disability, the medical model has affected how people with disabilities are treated in their everyday interpersonal interactions (Finkelstein, 1980). This may include the communicative interactions of students with MSD at school. However, authors and organizations critical of the continued social exclusion of people with disabilities have also put forward alternative models. An alternative discourse about disability which emerged from critical analyses of the medical model is the social model of disability.

The Social Model of Disability
This model has been developed by people with disabilities (Oliver, 1990, 1996). The conceptual starting point of the social model of disability is the separation of disability from impairment, and the situating of causes of disability within the broader society. While there is recognition that impairment effects exist, that “some restrictions of activity may be directly associated with, or ‘caused by’, having a
physical, sensory or intellectual impairment” (Thomas, 1999, p.42), these are not defined as “disabilities”.

Disability is viewed as created by the social restriction of activity imposed on people with impairments (Oliver, 1996; Thomas, 1999). Hence, socio-structural barriers operating at multiple levels of society; attitudinal, inter-personal, and organisational, as discussed above, are the causes of disability. These socio-structural barriers isolate and exclude people with impairments from full participation in society. So, Oliver (1996) describes inaccessible public buildings, excluding work arrangements, segregated living arrangements, and segregated education as part of a systemic failure to include people with disabilities.

The proponents of this model take a systemic approach to examining issues of disability by focusing on the “social relationship” (Finkelstein, 1980, P.60) between the individual with impairment and their societal context. Therefore, they potentially broaden the scope of contextual factors that may influence the communication opportunities of students with MSD. Further, this model is essentially about social change; the deconstruction of socio-cultural barriers in order to achieve social participation and social inclusion of people with disabilities (Allan, 2008; Thomas, 1999). This includes education in the least restrictive environments and access to opportunities for communication.

The International Classification of Functioning, Disability and Health-Child and Youth version: A Biopsychosocial Model
The World Health Organisation’s (WHO) International Classification of Functioning, Disability and Health-Child and Youth version (ICF-CY) also represents a paradigm shift from a medical to a broader model of disability (WHO, 2007). However, it attempts to synthesize the different perspectives presented by the two previous models into a biopsychosocial model. A central construct of the ICF-CY is the interaction between a person and their environment, and it is stated that environmental factors are of particular concern for children and youth. In the ICF-CY disability is defined as “an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors” (WHO, 2007, p.228).
**Communication**

Communication is listed in the ICF-CY as a domain of *Activities and Participation*, in which participation restrictions may occur. The definition of communication includes the modes of communication typical of students with MSD; comprehension and production using vocalisations, body movements, signs, symbols, photos and communication devices. The definition also includes initiating and taking turns in communicative interactions. The communicative functioning of a student with MSD is viewed as a complex interaction between the student’s health condition and his/her contextual factors (WHO, 2007). Other domains included in *Activities and Participation* are: learning, daily routines, self-care (including eating and drinking), mobility, interpersonal interactions and relationships, school education, and community life, which all have relevance to students with MSD.

**Contextual Factors**

According to the ICF-CY contextual factors are made up of a student’s personal factors or characteristics, and environmental factors. The environments of children and youth are viewed as “a series of successive systems surrounding them from the most immediate to the most distant” (WHO, 2007, p.xvi). Environmental factors are conceptualised in the ICF-CY as operating at two different levels. The individual level represents a student’s immediate settings, such as home and school. These settings include physical and material features, and other people such as family and peers. The societal level includes social structures and systems, organisations and services, government agencies, community activities, legislation, and attitudes and discourses.

The environmental factors listed in the ICF-CY may operate at different levels, and include: (a) assistive technology for communication and education; (b) design, construction and products for public buildings such as schools; (c) support and relationships with family, peers, people in positions of authority, personal care providers, health professionals and other professionals such as teachers; (d) individuals’ attitudes as well as societal attitudes, practices and discourses; and (e) services, systems and policies for health and education, including special education. Further, these factors interact with each other and the student’s health conditions to influence his/her participation in activities, such as communication.
**Barriers and facilitators**

Environmental factors can have a positive or negative influence on a student’s participation and functioning. That is, environmental factors define barriers or facilitators to activities and a student’s participation, for example in communicative interactions. According to the ICF-CY, *facilitators* are factors in a student’s environment that improve functioning and can prevent impairment from restricting participation in communicative interactions. Conversely, *barriers* are factors in a student’s environment that limit functioning and restrict participation in communicative interactions. An environmental factor may be a barrier because of its presence, for example negative attitudes towards students with MSD, or its absence, for example the unavailability of assistive technology or needed services.

In the ICF-CY it is acknowledged that there may be several reasons for an environmental factor being a facilitator or barrier, and that these will depend on the particular circumstances of individual students. The ICF-CY also offers a tool for describing the extent to which an environmental factor is a facilitator or barrier; that is the extent of positive effects of facilitators or negative effects of barriers.

One of the environmental factors listed in the ICF-CY with services, systems and policies, is legislation and/or national policies. Intended uses of the ICF-CY include informing both data collection about the needs of people with disability, and policy-making in the development of services to support these needs. The Australian Institute of Health and Welfare, a federal government agency, endorses the *International Classification of Functioning, Health and Disability (ICF)* (WHO, 2001) as a framework for the development of local policy and service delivery (AIHW, 2004). This practice indicates that models or discourses about disability, such as that presented in the ICF-CY, may influence social policies and legislation relevant to people with disabilities, and that such policy and legislation may influence the extent to which people with disability participate in activities and different areas of life. A range of social policies and legal frameworks have been developed globally since the emergence of a social model of disability, the International Year of Disabled Persons in 1981 (Foreman, 2008), and the endorsement of the ICF by the World Health Assembly in 2001 (AIHW, 2004).
SOCIAL POLICY AND LEGISLATION

Social policies and legislation relevant to students with MSD range from general anti-discrimination legislation, to legislation and policies about the provision of education.

**General Anti-Discrimination Legislation**

From the 1980s, legislation and policy began to appear that recognised the rights of people with disabilities and the need to remove barriers to participation (Allan, 2008). Examples of such legislation include the *Americans with Disabilities Act (1990)* (Public Law 101-336), the *U.K. Human Rights Act (2000)* (implementing the European Convention on Human Rights) and the *Anti-Discrimination Act (1977)* (*NSW*) in Australia.

**Legislation and Policy Pertaining to the Education of Students with Severe Disabilities**

These changes were also reflected in legislation and social policy pertaining to the education of students with severe disabilities. Initially the purpose of legislation was to mandate education for all students, as reflected in the *Education Act (1981)* in the U.K., the *Individuals with Disabilities Education Act (IDEA) (1997)* in the U.S.A, and the *Disability Discrimination Act (DDA) (1992)* in Australia (Allan, 2008; Dempsey, 2008). The DDA was supplemented by a set of standards, the *Australian Disability Standards for Education (2005)* (Dempsey, 2008).

There are numerous references in the literature to the existence of legislation and government policy recognised to introduce the possibility for inclusive educational contexts for students with MSD (Allan, 2008; Grove et al., 2003). Following the landmark *Warnock report* (Department for Education and Science, 1978) in the U.K., for example, recent documents have included *Ofsted (2004)*, *Towards inclusive schools for England and Wales, The Additional Support Needs Act in Scotland (2004)* and the Scottish Executive (2005) *Supporting Childrens’ Learning: The Code of Practice* (Allan, 2008). Amendments made to existing legislation in the U.S.A., also accommodated inclusion resulting in the *Individuals with Disabilities Education Act Regulations (1999)* (Public Law 300.347). While there is diversity in policy across states in Australia, Dempsey (2008, p.45) noted that all states agree “that students with a disability should be placed in the least restrictive environment”. Queensland, Western Australia and Tasmania all have policies for inclusion. In NSW, the Department of Education and Training policy *People with*

In addition, various official texts pertaining to best practice in the education of students with severe disabilities are in existence (Chalmers et al., 1998). These guidelines include, for example, collaborative teamwork between teachers and therapists (Forbes, 2001).

Impact of Legislation and Policy on Educational Provision for Students with Severe Disabilities

Despite the existence of legislation and social policies, the replacement of segregated education with inclusion of students with MSD has not yet been realized (Allan, 2008). This may be partly due to contradictions in legislation and social policies whereby barriers continue to be defined almost exclusively in terms of students’ physical, sensory and intellectual impairments and communication difficulties, rather than in terms of environmental and attitudinal factors (Allan, 2008). It appears that to date attempts to create inclusion policy and legislation have, in practice, served to perpetuate segregated education (Lindsay & Dockrell, 2002; Sonnenmeier et al., 2005).

In addition, the effects of legislation and policy on the educational contexts of students with severe disabilities are not uncomplicated or unmediated by other factors (Allan, 2008), as discussed in Chapter 1. The implementation of legislation and policies are mediated in particular ways in teachers’ particular, local contexts. They interact with other factors or “realities” such as lack of resources in a school setting (Allan, 2008; Woodcock & Tregaskis, 2008). As Chalmers et al. (1998) found, teachers may agree with policies about best practice, for example, but may encounter barriers to implementation such as lack of availability of therapists for collaborative teamwork.

Therefore, while it is indicated in the ICF-CY that discourses about disability (which includes the biopsychosocial model), and social policies and legislation are contextual factors potentially influencing the participation of people with disabilities, they do not operate in isolation. Social discourses about disability and social policies and legislation form part of a broad range of contextual factors, as listed in the ICF-CY, that need to be considered when attempting to understand the restricted participation of students with MSD in communicative interactions.
FINDINGS FROM IMPLEMENTATION SCIENCE

The findings of implementation science suggest that the influence of legislation, policies and social discourses about disability, as well as professional development (discussed in Chapter 1) on the practices of teachers and other professionals may be mediated by other contextual factors. Researchers suggest that there has been limited impact of best practices in human services generally because implementation is a complex process (Fixsen, Blasè, Naoom & Wallace, 2009).

From reviews of implementation studies across different disciplines, researchers identify contextual factors at multiple levels that interact to influence the implementation of programs or interventions (Durlak & Du Pre, 2008; Fixsen et al., 2009). These range from the characteristics of professionals, to organisational structures, capacity and climate, collaboration between agencies, and community participation (Durlak & Du Pre, 2008; Fixsen et al., 2009). These researchers conclude that supports are required at as many levels, and across as many factors as possible, in the direction of desired practices in order to increase the likelihood of effective implementation (Durlak & Du Pre, 2008; Fixsen et al., 2009).

There is therefore a need to investigate the influence of different contextual factors at multiple levels (Durlak & Du Pre, 2008), such as those listed in the ICF-CY. As suggested by the preliminary findings reviewed in Chapter 1, these conclusions may also be applied to gaining deeper understanding about the persistence of low frequencies of communicative interactions for students with MSD.

In particular, Fixsen et al. (2009) emphasise that implementation of best practices is not merely a matter of giving practitioners information and assuming that they will put this into practice. Professional development is not only dependent on supports being in place at all levels, but is also an ongoing process rather than a one-off event, consistent with the findings of research reviewed in Chapter 1 (Bloomberg et al., 2003; Little & Houston, 2003; McMillan, 2008; Stephenson et al., 2011; Van vonderen, 2004).

Further, the findings of implementation science suggest that the supports required for implementation of best practices may vary with the particularities of local contexts (Durlak & Du Pre, 2008). This is consistent with previous statements that teachers’ particular, local contexts influence the ways in which legislation and
policies are implemented (Allan, 2008; Woodcock & Tregaskis, 2008). It is also consistent with the recognition that the reasons for environmental factors being facilitators or barriers depend on the particular circumstances of individual students (WHO, 2007). Therefore research findings and the ICF-CY (WHO, 2007), suggest the need to understand the influences on the communicative interactions of students with MSD in their particular contexts.

So, the existence of a number of contextual factors operating at multiple levels is said to influence both the participation of individuals in communication (WHO, 2007), and the implementation of practices to support individuals’ participation in communication (Durlak & Du Pre, 2008). Consequently, Durlak and Du Pre (2008), state that a systemic, ecological perspective is necessary for understanding the implementation of best practice and for facilitating its effectiveness. The framework provided by the ICF-CY and the findings from implementation science can be synthesized into a contemporary, emergent paradigm known as complexity theory. Complexity theory provides an appropriate conceptual framework for exploring potential influences on the communicative interactions of students with MSD. The reasons for its use as a conceptual framework for this study are explained.

**COMPLEXITY THEORY: A CONCEPTUAL FRAMEWORK FOR THIS STUDY**

Complexity theory provides a conceptual tool for exploring the process of communication in terms of individuals’ characteristics and how these interact with the environment (Packman & Kuhn, 2009). From a complexity perspective, communication is a complex, dynamic social process that is embedded not only within individuals’ characteristics but also broader contexts or systems (Bertalanffy, 1968; Haggis, 2008; Kuhn, 2007; Packman & Kuhn, 2009). According to complexity theory, gaining an understanding of communicative interactions therefore necessitates studying the complex systems in which they are embedded (Haggis, 2008; Laszlo, 1973). Complexity theory provides a framework for attempting to understand these complex systems, including individuals, social groupings, institutions, practices, discourses and cultures (Haggis, 2008; Kuhn, 2007; Packman & Kuhn, 2009), and how they influence communicative interactions (Mason, 2008). It also offers a conceptual tool for capturing the complexity of interactions among contextual factors or systems that produce supports or barriers to participation in communication.
In one of the few communication studies that have explored the role of the broader social context, Packman and Kuhn (2009) argued for the application of complexity theory to the management of stuttering.

Complexity theory as a conceptual framework for exploring potential reasons for the low frequencies of communicative interactions of students with MSD is discussed in light of the literature reviewed in Chapter 1, the findings from implementation science, and the framework provided in the ICF-CY. The conceptual framework for this study is also represented in Figure 2.1, as described below. There are a number of principles of complexity theory applicable to investigating influences on the communicative interactions of students with MSD.

**Multiple Contextual Factors at Multiple Levels**

From a complexity perspective, complex systems are comprised of multiple factors and are multilayered, so that contextual factors operate at different levels (Haggis, 2008; Kuhn, 2007; Mason, 2008; Packman & Kuhn, 2009). According to the literature reviewed in Chapter 1, the ICF-CY, and findings from implementation science, there are multiple factors potentially influencing communicative interactions of students with MSD about which little is known. These include: (a) the impacts of students’ impairments on their communication participation; (b) teachers’ attitudes, perceptions and beliefs; (c) other people such as peers, LSOs, other teachers and SLPs; (d) resources such as assistive technology and the physical environment; and (e) systems, services and policies. There is a need to gain a deeper understanding of the contextual factors that may influence the communicative interactions of students with MSD, to work towards developing more effective ways to support their increased participation in communication (Arthur et al., 1998; Arthur et al., 1999; Bruce, 2002).

These contextual factors may operate at multiple levels or in different contexts or settings, as represented in Figure 2.1. Levels range from the most immediate context, the individual student with MSD to factors at the societal level.

**Student Characteristics**

In the conceptual framework for this study, *Student Characteristics* refers to the impairments, health conditions, communicative characteristics and behaviour of individual students with MSD. Because complexity theory is a conceptual tool for understanding interactions between individuals’ characteristics and their environment,
this framework enables a deeper understanding of how characteristics of students with MSD impact their participation in different contexts, and how factors in their broader contexts influence the characteristics of individual students with MSD. This factor is represented as one of the innermost circles in Figure 2.1, at the level of the individual.

![Figure 2.1 Students with MSD and their teachers nested within complex systems](image)

**Teacher Characteristics: Attitudes, Perceptions and Beliefs**

The teachers of students with MSD have been a focus of studies measuring frequencies of communicative interactions with students with MSD. Yet little is known about their characteristics and how these influence the communicative
interactions of students with MSD. In the conceptual framework for this study, Teacher Characteristics is included to enable deeper understanding not only of the characteristics of individual teachers, but also how these characteristics interact with factors in the broader contexts to influence the communicative interactions of students with MSD.

There is a need, for example, for further research on teachers’ attitudes, perceptions and beliefs towards students with MSD. Despite the potential impact on practice, little is known about the attitudes, perceptions and beliefs of teachers of students with MSD, and further research is required to explore these (Ingvarson et al, 2005). Further research is also needed to gain a better understanding of the influence of teachers’ attitudes, perceptions and beliefs on their communication with their students with MSD. Teacher Characteristics is represented as the other inner most circle in Figure 2.1, also at the level of individuals because in the conceptual framework for this study interactions between individual teachers of students with MSD and their broader contexts are of central concern.

However, contextual factors operate beyond the level of individual students and teachers. From a complexity perspective, the components of the education system, for example, expand beyond individuals and the classroom to encompass further layers such as the whole school setting, the organisational structure of the education department, government policies regarding education and the broader institutions of community and society (Fullan, 2001; Haggis, 2008; Oliver, 1996).

School Context
As represented in Figure 2.1, the School Context is conceptualised as the immediate external context in which individual students with MSD and their teachers are embedded. Despite findings indicating the potential influence of the school context, particularly the type of educational setting, on the communicative interactions of students with MSD, there has been little research about the contextual factors operating within this context. There is therefore a need for greater understanding of the complex interactions among factors in this context, and how they influence the communicative interactions of students with MSD.

Government: Organisations/Departments, Legislation and Social Policy
In the conceptual framework for this study, the Government level includes both government departments or agencies, and legislation and social policy. It is represented in Figure 2.1 as the next level beyond the school context. This framework
enables a deeper understanding of how government departments influence the communication participation of students with MSD. Little is known, for example, about how organisations such as the state education system influence the communication practices of teachers of students with MSD, and how other agencies influence their access to collaboration with SLPs. Similarly, while legislation and social policy are potentially contextual factors influencing the communicative interactions of students with MSD, little is documented about the actual realities of the impacts of policies and legislation on the specific contexts and communicative interactions of students with MSD.

**Society**

The final level in the conceptual framework for this study is *Society*, as represented in Figure 2.1. This includes mainly social discourses about disability. In the ICF-CY it is stated that attitudes towards people with disability range from the attitudes held by individuals such as teachers and SLPs, through to societal attitudes. Little is known about how teachers and other professionals such as SLPs interact with the social discourses of disability available to them. It is not known for example whether teachers and SLPs continue to operate by the medical model of disability or whether they have embraced a biopsychosocial model (WHO, 2007,) or indeed whether they are influenced by both simultaneously. Further, we do not know how the interaction of these professionals with social discourses about disability influences their communication practices with students with MSD. This conceptual framework therefore enables a deeper understanding of the interactions between individuals’ attitudes and social discourses about disability, and how these influence participation in communication by students with MSD.

**Nesting**

The levels are arranged in concentric circles in Figure 2.1 to reflect the principle of complexity theory that the factors or layers within a system, or different systems, are embedded or nested within each other (Haggis, 2008; Kuhn, 2007; Mason, 2008; Packman & Kuhn, 2009). So in the conceptual framework for this study, individual students with MSD and their teachers are embedded within the classroom and the broader school setting and workplace culture. Each government school is also embedded within the organisational structure of the education department. Schools may also be influenced by other agencies such as those that employ SLPs. Finally,
schools are not isolated from policies and legislation of the government, broader societal institutions and social discourses about disability (Finkelstein, 1980; Haggis, 2008; Lazslo, 1973; Oliver, 1990). The potential nesting of factors in different contexts that may influence the communicative interactions of students with MSD are thus represented in Figure 2.1.

**Inter-Connections and Interactions**
These contextual factors are also inter-connected and interact in complex ways that are non linear (Haggis, 2008; Kuhn, 2007; Lazslo, 1973; Mason, 2008; Packman & Kuhn, 2009). A complexity approach enables exploration of the complex interactions among factors at different levels of systems, and how these factors influence each other to produce effects on the communicative interactions of students with MSD.

There are a number of examples in the literature of processes that may reflect interactions among contextual factors. Collegiality may reflect patterns of interactions among staff in the same school context, or in different school settings, that influence teachers’ ability to facilitate their students’ participation in communication. Studies reviewed in Chapter 1 indicate that communication education for teachers potentially interacts with factors in the school context as well as beyond the school. The literature reviewed in Chapter 1 also indicates that collaboration between teachers and SLPs, and teachers’ attitudes, perceptions and beliefs are factors/processes that may interact with other factors at different levels to influence the communicative interactions of students with MSD. While both communication education for teachers and collaboration between teachers and SLPs are recognised as factors potentially influencing the communication of students with MSD, they are not represented in Figure 2.1 because more information is needed about their interactions with other factors, and the levels at which they operate.

**Collaboration**
Collaboration between teachers and SLPs is a process that involves interactions between different professionals in particular contexts. It is therefore a process that potentially interacts with multiple contextual factors. Little is known, however, about contextual factors that mediate collaboration between teachers of students with MSD and SLPs. Further research is needed to deepen understanding about school setting factors and how these impact on communication intervention (Iacono & Cameron,
and collaboration between SLPs and teachers (Schmitt & Justice, 2011; Siegel et al., 2010).

It appears also that collaboration is embedded within departmental structures that mediate whether or not it will be successful, for example, through the degree of support provided for the professionals involved (Hartas, 2004). The impacts on collaboration of factors associated with SLP service delivery and organisational structure warrant further research.

In fact, little has been documented about how collaboration between teachers of students with MSD and SLPs actually takes place across different educational settings. Despite the finding that staff working with students with MSD regard communication as the most important curriculum area (Arthur & Foreman, 2002; Foreman et al., 2007), little is known about the influence of collaboration between teachers and SLPs on the communicative interactions of students with MSD.

**Attitudes, Perceptions and Beliefs**

The attitudes of individuals such as teachers towards students with MSD may also interact with other contextual factors. These may include: (a) social discourses about disability; (b) departmental policies and structures, such as those of the education system that continues to provide segregated education; and (c) the cultures of schools. These contextual factors may both influence teachers’ attitudes, and also mediate the relationship between teachers’ attitudes and their communication practices with students with MSD. They may determine whether or not teachers’ attitudes lead to behaviours that restrict or enable opportunities for communication for students with MSD. Little is known about other contextual factors potentially influencing the attitudes, perceptions and beliefs of teachers about their students with MSD. The conceptual framework for this study, based on complexity theory, seeks to enable exploration of the complex interactions between factors, such as teachers’ attitudes and other contextual factors, and how these interactions influence the participation of students with MSD in communicative interactions.

**Dynamic Processes and Particularities**

Finally, from the perspective of complexity theory, it is the dynamic interactions between contextual factors over time that produces effects (Haggis, 2008; Kuhn, 2007; Packman & Kuhn, 2009). The conceptual framework for this study enables the exploration of how factors in particular contexts have evolved to become supports or
obstacles. This may yield information about how contexts might change (Mason, 2008), which could be used to inform the development of a model for enhancing the communicative interactions of students with MSD. It also enables a deeper understanding of the particularities of interactions between students with MSD and their teachers and others, within their specific contextual situations over time (Lazslo, 1973). From this conceptual framework an understanding of supports and obstacles to communication opportunities for individual students in their particular contexts is enabled.

**Conclusion**

This study therefore explores documented low frequencies of communicative interaction for students with MSD in terms of multiple, inter-connected factors that interact and influence each other over time. This conceptual framework, while including teachers’ knowledge, skills and attitudes, also moves beyond this level to explore what impacts upon teachers and their students with MSD as individuals within nested, complex systems, as represented in Figure 2.1. Individual teachers and their students with MSD are located within their broader context, and the study seeks to examine how these individuals interact with the complex web of interconnected factors that makes up their context (Lazslo, 1973; Packman & Kuhn, 2009).

This conceptual framework has the potential to identify contextual factors that act as either barriers which restrict participation in communication, or supports which enable participation in communication. While complexity theory is inherently about change (Kuhn, 2007), little is known about the systemic changes that would increase participation in communicative interactions for students with MSD, and how to achieve these changes. Utilizing this conceptual framework, however, may facilitate mapping of required supports at multiple levels (Durlak & Du Pre, 2008; Fixsen et al., 2009; Laszlo, 1973; Mason, 2008). Such supports may increase the likelihood of students with MSD and their teachers being embedded within contexts that enable ongoing experiences of communicating, and therefore enhancement of communication skills (Langley & Lombardino, 1987; Grove et al., 2001). Finally, this conceptual framework has implications for the nature of the methodology employed.
METHODOLOGY

Valuable information about frequencies of communicative interaction has been gathered by quantifying the observed behaviour of individuals, predominantly students with MSD and their teachers. However, this methodology may be limited in its effectiveness in uncovering the possible range of factors that influence an individual’s behaviour and potentially underpin low frequencies of communicative interaction (Soto, 1997). Surveys of teachers may also be limited in their ability to uncover the factors that influence their communicative interactions with students with MSD.

Surveys have a narrow focus offering only a limited scope of questions and potential responses (Izen & Brown, 1991; Goodfellow, 1997). Specific survey questions about teachers’ knowledge and skills (Arthur & Butterfield, 1993; Arthur et al., 1998; Arthur et al., 1999; Butterfield & Arthur, 1994) may have meant that other factors of concern to teachers have not emerged from the research. This may be one of the reasons that teacher education programmes based on survey responses have not had an impact on observed communicative interactions. McCarthy and Light (2005) recommended that researchers use non-survey methods such as interviews to more fully explore teachers’ attitudes towards their students.

Qualitative methods, such as in-depth interviews are appropriate for exploring an area about which little is known, such as factors potentially influencing low frequencies of communicative interaction for students with MSD (Kent-Walsh & Light, 2003; Goodfellow, 1997; Lawler, 1998; Patton, 1990). Also, as these factors are likely to be complex, gathering narratives during in-depth interviews is an appropriate method, because narratives are capable of yielding rich descriptions that reveal the complexity and multi-dimensional nature of contextual factors (Creswell, 2008; Haggis, 2008; Kuhn & Woog, 2005; Oliver, 1996; Thomas, 1999). By capturing sequences and consequences of events, narratives are also capable of representing how these contextual factors interact over time to produce changes (Kuhn & Woog, 2005; Riessman, 1993).

Teachers as communication partners, experience the influences of these contextual factors on their communicative interactions with their students with MSD. Similarly, SLPs experience the influences of these contextual factors on their ability to support communication access for their clients with MSD, and collaborate with their teachers (Schmitt & Justice, 2011). Telling stories is a primary way that individuals make
sense of their experiences within their broader context (Creswell, 2008; Riessman, 1993). Teachers’ and SLPs’ narratives can therefore act as windows into contextual barriers that may restrict communication access for students with MSD (Finkelstein, 1980; Forster & Iacono, 2008; Hartas, 2004; Kuhn & Woog, 2005; Oliver, 1996; Schmitt & Justice, 2011; Thomas, 1999). To date, however, no research has explored teachers’ lived experiences of communicating with students with MSD, nor have they been asked about their experiences of communication education or their support needs more broadly. Similarly, no research has explored SLPs’ experiences of supporting the communication of students with MSD.

In the studies conducted by Kent-Walsh and Light (2003) and Soto et al. (Soto, 1997; Soto & Goetz, 1998; Soto et al., 2001), giving teachers the opportunity to talk about their experiences and needs resulted in rich information, identifying a broad range of supports and obstacles, and consequent broad set of recommendations for improving communication practices in mainstream classrooms for students who use AAC. There is therefore a need for more qualitative data to identify broader processes for supporting the communication of students with MSD (Arthur, 2003; Downing, 2001; Forster & Iacono, 2008).

SUMMARY AND POTENTIAL CONTRIBUTION OF THE STUDY

This chapter has provided a conceptual framework for the qualitative study reported in the following chapters based on the extant literature and a related schema. The schema presented in Figure 2.1, whilst representing a conceptual framework, is viewed as merely a starting point for the current study. It is envisaged that an outcome of this study will be to evolve and elaborate this schema.

There are two aims of this study. The first is to contribute to a deeper understanding of the influence of contextual factors on the communicative interactions of students with MSD by: (a) identifying a range of factors and the multiple levels at which they operate, (b) describing how these factors and levels interact, and (c) describing how these factors act to influence students’ communication opportunities either as supports or obstacles.

The second aim is to develop a model as an outcome of the findings for enhancing the communicative interactions of students with MSD. Identification of the range of contextual factors influencing the communicative interactions of students with MSD will enable comprehensive recommendations to be made for improving
services to this population (Kent-Walsh & Light, 2003; Soto et al., 2001). Identification of supports and obstacles at different levels will provide individuals and groups, from teachers to policy makers, with some directions as to supports that may enable enhancement of communication opportunities for students with MSD (Mason, 2008). Finally, information from this study may contribute to an improved understanding of the complex influences on the communication access of this vulnerable population, and foster further research, policy development and evolving of practices both in particular contexts and at a societal level.

**SPECIFIC RESEARCH QUESTIONS**

The following research questions therefore guide the investigation reported in subsequent chapters:

1. (a) What are teachers’ perceptions and experiences of communicating with students with multiple and severe disabilities (MSD)?
   (b) What are speech-language pathologists’ (SLPs) perceptions and experiences of supporting the communication of students with MSD?

2. (a) What supports teachers’ communication with their students with MSD?
   (b) What supports communication opportunities for students with MSD?
   (c) What supports SLPs in their work with students with MSD?

3. (a) What hinders or adversely influences teachers’ communication with their students with MSD?
   (b) What hinders communication opportunities for students with MSD?
   (c) What hinders SLPs in their work with students with MSD?

4. (a) What are teachers’ support needs and their perceptions and experiences of training in communication?
   (b) What are SLPs’ support needs?

In the following chapter the methodology employed to answer these questions is described.
CHAPTER 3

METHODOLOGY

This project was approved by the Human Research Ethics Committees of The University of Sydney (Ref. No.: 12-2005/2/8771) and The University of Newcastle (Ref. No.: H-2008-0203), as well as the NSW Department of Education and Training (DET) Planning and Innovation Office (SERAP No.: 06.203), Strategic Innovations Directorate (SERAP No.: 2008096), and the Research and Evaluation Office of the NSW Department of Aging, Disability and Home Care (DADHC) (Ref. No.: AH09/45860).

The study was conducted in four stages involving groups of participants who differed in professional discipline, educational setting or geographical location. The first stage involved teachers who worked in special schools and support units, while the second stage involved teachers who worked in mainstream classrooms. The third stage involved speech-language pathologists (SLPs) based in a metropolitan area, and Stage 4 involved SLPs in regional and rural areas. Whilst these stages were conducted in a chronological sequence, the methods employed for each were predominantly the same. Therefore, the stages will be described simultaneously within the general methods employed for the study. There were some differences between stages in recruitment, the procedure for conducting second interviews, and data management and analysis. Explanations are provided for these differences.

DEFINITIONS OF SETTINGS

Type of Educational Setting

Special schools, or schools for special purposes (SSPs) are schools in NSW composed totally of classes for students classified by the DET as having one or more of the following impairments: intellectual/cognitive, physical, or sensory (Stephenson et al., 2011). Support units (SUs) are also comprised of classes for students with intellectual and/or physical and sensory impairments however they are located in mainstream schools. Mainstream classes are composed of predominantly students without impairments, and may include students with impairments.

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2 The authors PhD candidature was originally at The University of Sydney. Her candidature was transferred to The University of Newcastle when her principal supervisor moved overseas.
Geographical Setting
In this study the use of the terms metropolitan, regional, rural and remote are based on definitions provided by the Australian Institute of Health and Welfare (AIHW) (2011). A metropolitan area is a capital city or other metropolitan centre with a population of more than 100,000. A regional area is a large rural centre with a population between 25,000 and 99,999. A rural area refers to a small rural centre or other rural area with a population of between 5,000 and 24,999. Therefore, a remote area refers to an area with a population of less than 5,000.

RATIONALE FOR PARTICIPANTS INCLUDED
SLPs were included, in addition to teachers, for a number of reasons. Firstly, the extant literature suggests an important role for SLPs in supporting the professional development of teachers and communication intervention for students with MSD (Butterfield & Arthur, 1994; Chalmers et al., 1998; Downing, 2001; Forster & Iacono, 2008; Harding et al., 2011; Kent-Walsh & Light, 2003; Mirenda et al., 1990; Soto et al., 2001). Secondly, as professionals with an interest in supporting the communication of students, they can potentially offer a different perspective on factors influencing the communicative interactions of students with MSD. Finally, the inclusion of participants working in a range of educational settings and geographical locations was intended to gain a range of views that may reveal differences between particular contexts (Eisenhart & Howe, 1992; Maxwell, 1992).

ELIGIBILITY CRITERIA
To be included in the study, participants had to have worked with at least one student in the past three years who met the following criteria: (a) severe intellectual disability as classified by the NSW DET, and (b) three out of five of the following characteristics; physical impairment or requiring assistance with mobility, sensory impairments such as vision and hearing impairments, complex health conditions or needs, dependence on others for activities of daily living such as eating and hygiene, and limited ability to interact with their environment (Carnaby, 2007; Foreman & Arthur, 2002; Hostyn et al., 2011b; International Association for the Scientific Study of Intellectual Disabilities, 2009; Munde et al., 2009; Stephenson et al., 2011).
RECRUITMENT

Stages 1 and 2

Participants in Stages 1 and 2 were recruited through NSW Department of Education and Training (DET) schools. In the first stage, the researcher identified from the DET website schools in the Western Sydney and Western NSW regions that had in attendance students educationally classified as intellectually severe (IS). The researcher sent a letter to nine principals asking them to invite teachers of students with MSD at their school to participate in the research. The letter to principals contained a description of the aims of the study and an outline of the procedure. This included a summary of how privacy, confidentiality and anonymity would be maintained. A copy of the letter is provided in Appendix 2.

In addition, the researcher sent the principals an advertisement inviting teachers to participate voluntarily in the study. The advertisement contained an outline of the aims and methodology of the study and an offer for teachers to talk about their experiences of communicating with students with MSD. It also contained information on voluntary consent and how privacy, confidentiality and anonymity would be maintained. Teachers interested in participating in the study were asked to contact the researcher by email or mobile phone. A copy of the advertisement is provided in Appendix 3. The principals were asked to display the advertisement in a suitable location such as a notice board in the staff room. A copy of the eligibility criteria, described above, for participation in the research was included with the recruitment advertisement sent to schools. The principals were asked to display the eligibility criteria with the advertisement. The eligibility criteria sent to schools is included in Appendix 4.

In Stage 2 the researcher contacted disability support services staff within two district/area offices, who forwarded the names of schools including students with MSD in mainstream classrooms. The researcher then contacted 11 schools by telephone. Following discussion with principals or executive teachers, six schools were deemed not eligible for the study because they did not have a student with MSD enrolled. No successful contact was made with two schools. Three schools were deemed eligible and five teachers from these schools volunteered to participate in the study. Teachers interested in participating in the study were asked to contact the researcher directly either by email or telephone.
Stages 3 and 4
Participants in Stages 3 and 4 were recruited through the NSW Department of Aging, Disability and Home Care (DADHC), as this department has responsibility for providing therapy services to people with disabilities in NSW. The researcher made contact with the respective regional managers for Metro-North Western and Western Regions of NSW. Following discussion about the general features of the study, the researcher was referred to managers and senior SLPs directly responsible for supervising therapists to commence recruitment. The researcher sent a letter by email to the Access Manager in the Metro-North Western Region and the Grade 4 (most senior) SLP in the Western Region, asking them to invite SLPs working with school-aged children with MSD to participate in the research. The content of this letter was similar to that sent to principals, and is included in Appendix 5.

In addition, the researcher sent the Access manager and senior SLP an advertisement, similar to that sent to principals, inviting SLPs to participate voluntarily in the study, and this is included in Appendix 6. The researcher also sent these personnel a copy of the participant information sheet, eligibility criteria and consent form to distribute to SLPs in their regions. These forms are included in Appendices 7, 8 and 9 respectively. SLPs who were interested in participating in the study were asked to contact the researcher directly either by telephone or email.

Initial Contact
The purpose of initial contact was to ensure that respondents were given adequate information and opportunity to ask questions about the purpose of the study before volunteering to participate (Minichiello, Aroni, Timewell & Alexander, 1995). When a teacher or SLP contacted the researcher he or she was briefed about the aims of the study and the requirements for participation. These requirements included attending two in-depth interviews that would last between 45 minutes and a maximum of 2 hours, and participating in additional contact either by email, phone or post (depending upon the participant’s expressed preferences). At this initial contact, over the telephone, any questions or concerns that the participants raised were discussed. The issues of voluntary consent, privacy, confidentiality and anonymity were also explained and discussed. Participants were informed that they could withdraw from the study at any time without penalty. These issues were also detailed in the
participant information sheet posted to each teacher following initial phone contact. A copy of the participant information sheet sent to teachers, similar to that distributed to SLPs by their manager or senior SLP, is provided in Appendix 10.

All teachers and SLPs who contacted the researcher agreed to participate in the study. The date, time and a suitable venue for the first interview were negotiated with participants (Holstein & Gubrium, 1995; Kvale, 1996). A consent form was then posted by the researcher to each teacher prior to the first interview, and this was the same form as that distributed to SLPs by their manager or senior SLP (included in Appendix 9). Depending upon their preferences, all participants either posted signed consent forms back to the researcher prior to the first interview, or brought these with them to the first interview.

PARTICIPANTS
There were 32 participants in total in this study; 16 teachers and 16 SLPs. The 16 teachers varied in the educational settings in which they worked. Five worked in SSPs, six in SUs located in mainstream schools, and five in mainstream classrooms. They also varied in the geographical setting of their schools. Four worked in a metropolitan area and five on the periphery of the metropolitan area, in terms of government department service boundaries. The other seven teachers worked in schools in regional or rural areas.

The 16 SLPs also varied in the geographical location of their offices, and the educational settings they visited as part of their work. Eight SLPs were based in offices in a metropolitan area and the other eight in regional or rural offices. The different educational settings that the SLPs visited are discussed below in Stages 3 and 4.

Stage 1
The participants in the first stage were 11 teachers who worked in segregated classrooms across four different schools. Four teachers worked in one metropolitan SSP, and a fifth teacher in a regional SSP. Five teachers were in an SU in a geographical location outside the metropolitan area, but annexed to it for the provision of state government services. The eleventh teacher was in a regional SU. Teachers ranged in years of teaching experience from less than five to more than 30.
years. The pseudonyms, school settings, years of teaching experience, and qualifications of the participants are summarized in Table 3.1.

Table 3.1  
**Characteristics of Participants in Stage 1**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age range (years)</th>
<th>Years teaching experience (years)</th>
<th>Type of teaching experience</th>
<th>Educational setting</th>
<th>Location</th>
<th>Training background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penny</td>
<td>F</td>
<td>55+</td>
<td>30+</td>
<td>I.S.</td>
<td>SU</td>
<td>Regional</td>
<td>DipEd</td>
</tr>
<tr>
<td>Donna</td>
<td>F</td>
<td>55+</td>
<td>30+</td>
<td>Mixed</td>
<td>SSP</td>
<td>Rural</td>
<td>DipEd</td>
</tr>
<tr>
<td>Sally</td>
<td>F</td>
<td>46-55</td>
<td>20+</td>
<td>Mixed</td>
<td>SU</td>
<td>Regional</td>
<td>B.Ed</td>
</tr>
<tr>
<td>Polly</td>
<td>F</td>
<td>55+</td>
<td>30+</td>
<td>I.S.</td>
<td>SU</td>
<td>Regional</td>
<td>M.Ed</td>
</tr>
<tr>
<td>Barry</td>
<td>M</td>
<td>46-55</td>
<td>20+</td>
<td>I.S.</td>
<td>SU</td>
<td>Regional</td>
<td>DipEd</td>
</tr>
<tr>
<td>Derek</td>
<td>M</td>
<td>46-55</td>
<td>20+</td>
<td>I.S.</td>
<td>SU</td>
<td>Regional</td>
<td>DipEd</td>
</tr>
<tr>
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<td>36-45</td>
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<td>I.S.</td>
<td>SSP</td>
<td>Metro</td>
<td>SpEd.</td>
</tr>
<tr>
<td>Zara</td>
<td>F</td>
<td>20-35</td>
<td>5</td>
<td>I.S.</td>
<td>SSP</td>
<td>Metro</td>
<td>B.Ed</td>
</tr>
<tr>
<td>Leanne</td>
<td>F</td>
<td>46-55</td>
<td>10+</td>
<td>I.S.</td>
<td>SSP</td>
<td>Metro</td>
<td>B.Ed</td>
</tr>
<tr>
<td>Molly</td>
<td>F</td>
<td>46-55</td>
<td>10+</td>
<td>I.S.</td>
<td>SSP</td>
<td>Metro</td>
<td>B.Ed</td>
</tr>
<tr>
<td>Jake</td>
<td>M</td>
<td>36-45</td>
<td>10</td>
<td>Mixed</td>
<td>SU</td>
<td>Regional</td>
<td>M.Ed</td>
</tr>
</tbody>
</table>


**Stage 2**

All five teachers who participated in Stage 2 worked in mainstream public schools in rural areas. They ranged in years of teaching experience from five to 30 years. Two of the teachers had not previously encountered students with disabilities, while the other three had some previous experience working with students with a range of disabilities. None had qualifications in special education. The pseudonym, school setting, and years of teaching experience of participants in Stage 2 are summarized in Table 3.2.

**Stage 3**

The participants in this stage were eight SLPs based in two offices in Western Sydney. They supported school-aged children and adolescents with MSD predominantly in SSPs and SUs as well as in their homes. Only two of the eight participants reported seeing clients with MSD in mainstream classrooms. They ranged in experience from less than 1 year to 7 years working with children and adolescents with disabilities. All participants had a Bachelor Degree in Speech Pathology. The
pseudonyms, years of experience and type of educational settings visited by participants in Stage 3 are summarized in Table 3.3.

Table 3.2
Characteristics of Participants in Stage 2

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age (years)</th>
<th>Years of teaching experience</th>
<th>Type of teaching experience</th>
<th>Educational setting</th>
<th>Location</th>
<th>Training background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betty</td>
<td>F</td>
<td>55+</td>
<td>30</td>
<td>Primary and secondary</td>
<td>Central school</td>
<td>Rural</td>
<td>DipEd</td>
</tr>
<tr>
<td>Dora</td>
<td>F</td>
<td>55+</td>
<td>30</td>
<td>Primary and secondary</td>
<td>Central school</td>
<td>Rural</td>
<td>DipEd</td>
</tr>
<tr>
<td>Naomi</td>
<td>F</td>
<td>36-45</td>
<td>15</td>
<td>Primary</td>
<td>Small mainstream public</td>
<td>Rural</td>
<td>B.Ed.</td>
</tr>
<tr>
<td>Phoebe</td>
<td>F</td>
<td>20-35</td>
<td>6</td>
<td>Primary</td>
<td>Small mainstream public</td>
<td>Rural</td>
<td>B.Ed.</td>
</tr>
<tr>
<td>Nigel</td>
<td>M</td>
<td>20-35</td>
<td>5</td>
<td>Secondary</td>
<td>Central school</td>
<td>Rural</td>
<td>B.Ed.</td>
</tr>
</tbody>
</table>


Stage 4

The participants in this stage were eight SLPs based in six offices in regional and rural towns in Western NSW. They supported children and adolescents with MSD in SSPs, SUs and mainstream classes. Most participants were based in regional centres, but also visited clients in rural towns. Four SLPs also reported providing outreach services to clients with MSD in remote areas. Three participants reported not having an SSP in their area. They ranged in experience from less than 2 years to 11 years working with children and adolescents with disabilities. All participants had a Bachelor Degree in Speech Pathology. The pseudonyms, years of experience and type of educational settings visited by participants in Stage 4 are summarized in Table 3.4.

PROCEDURE FOR DATA COLLECTION

A qualitative methodology (Coffey & Atkinson, 1996; Creswell, 2008; Richards, 2005; Tesch, 1990) was used to explore the research questions of this study. This is an appropriate inductive approach to exploring a social phenomenon about which little is known (Kent-Walsh & Light, 2003; Patton, 1990). Data was collected during two interviews with each participant. This was considered the most appropriate
<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age (years)</th>
<th>Years of experience</th>
<th>Type of experience</th>
<th>Settings</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarah</td>
<td>F</td>
<td>36-45</td>
<td>&lt; 1</td>
<td>School-aged, mixed abilities</td>
<td>SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Bonnie</td>
<td>F</td>
<td>20-35</td>
<td>&lt;1</td>
<td>School-aged, mixed abilities</td>
<td>SU SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Keira</td>
<td>F</td>
<td>20-35</td>
<td>3</td>
<td>School-aged, mixed abilities</td>
<td>SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Lara</td>
<td>F</td>
<td>20-35</td>
<td>3</td>
<td>School-aged; mixed abilities</td>
<td>SU SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Zina</td>
<td>F</td>
<td>20-35</td>
<td>5</td>
<td>Adolescents, Adults</td>
<td>SU SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Laura</td>
<td>F</td>
<td>20-35</td>
<td>5</td>
<td>School-aged, Adults</td>
<td>SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Louise</td>
<td>F</td>
<td>20-35</td>
<td>6</td>
<td>School-aged, Adults</td>
<td>SU SSPs Home</td>
<td>Metropolitan</td>
</tr>
<tr>
<td>Alice</td>
<td>F</td>
<td>20-35</td>
<td>7</td>
<td>School-aged, mixed abilities</td>
<td>SSPs Home</td>
<td>Metropolitan</td>
</tr>
</tbody>
</table>

F=female, M=Male, SSP=special school, SU=support unit

methodology for giving participants opportunities to provide rich descriptions of contextual factors associated with their individual experiences (Gubrium & Holstein, 1995; Kent-Walsh & Light, 2003).
**Table 3.4**  
*Characteristics of Participants in Stage 4*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Age (years)</th>
<th>Years of experience</th>
<th>Type of experience</th>
<th>Settings</th>
<th>Locations visited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caitlin</td>
<td>F</td>
<td>20-35</td>
<td>1.5</td>
<td>School-aged</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centre, rural towns</td>
</tr>
<tr>
<td>Mandy</td>
<td>F</td>
<td>36-45</td>
<td>1.5</td>
<td>School-aged</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centres, rural towns</td>
</tr>
<tr>
<td>Karen</td>
<td>F</td>
<td>20-35</td>
<td>3.5</td>
<td>Early intervention, school-aged</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centre, rural towns and remote outreach</td>
</tr>
<tr>
<td>Clare</td>
<td>F</td>
<td>20-35</td>
<td>5</td>
<td>School-aged</td>
<td>SSP, SU, mainstream classes, home</td>
<td>Regional centre, remote outreach</td>
</tr>
<tr>
<td>Nadia</td>
<td>F</td>
<td>20-35</td>
<td>8.5</td>
<td>Early intervention, school-aged</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centres, rural towns and remote outreach</td>
</tr>
<tr>
<td>Chloe</td>
<td>F</td>
<td>20-35</td>
<td>8.5</td>
<td>Early intervention, school-aged, adults</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centres, rural towns and remote outreach</td>
</tr>
<tr>
<td>Kirsty</td>
<td>F</td>
<td>20-35</td>
<td>9.5</td>
<td>School-aged</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Rural towns, remote outreach</td>
</tr>
<tr>
<td>Dianne</td>
<td>F</td>
<td>46-50</td>
<td>11</td>
<td>Early intervention, school-aged, adults</td>
<td>SSPs, SUs, mainstream classes, home</td>
<td>Regional centres, rural towns</td>
</tr>
</tbody>
</table>

**Interviews**

The interviews were in-depth and conversational, designed to encourage participants to tell stories about their experiences, and share their feelings and perceptions of communicating with, or supporting the communication of, students with MSD (Josselson & Lieblich, 1995; Lambert & Loiselle, 2008; Mishler, 1986). Interviews lasted 45 to 120 minutes. In the first interview, participants were invited to talk about their perceptions and experiences of supports and obstacles to communication access.
for students with MSD. Although conversational, the interviews were guided by four open-ended questions, developed from a review of the literature (Braun & Clarke, 2006; Gubrium & Holstein, 1995; Minichiello et al, 1995). The questions were informally piloted with colleagues who had experience working with students with MSD. The questions are included in Appendix 11. Although these questions were worded slightly differently for teachers and SLPs, they were intended to guide participants to give responses to the research questions (Braun & Clarke, 2006). Such questions are more likely to yield rich yet detailed information relevant to the research questions based on descriptions of specific situations and sequences of events from the participant’s lived experiences (Kvale, 1996; Marshall & Rossman, 1999). These questions were about: (a) participants’ experiences communicating with, or supporting the communication of students with MSD; (b) supports that have a positive effect on communication, (c) professional learning that teachers and SLPs have found useful, and (d) obstacles that have a negative impact on communication for students with MSD.

**Briefing**

The first interview began with briefing prior to commencement of tape recording. The briefing was designed to serve two purposes. First, to assist participants to feel comfortable with the interview situation, the researcher disclosed her professional background, experience and interest in the research area (Clandinin & Connelly, 2000; Minichiello et al, 1995). She also provided contextual knowledge relevant to the research, including her work experience as a SLP. Second, at the briefing the researcher reiterated information about the background and purpose of the study and the nature of the interviews. Consent forms were also collected prior to commencing the audio taped interview if these had not already been sent to the researcher.

**Audio Taping**

All interviews were audio taped for later analysis, with the consent of the participant. The microphone and tape recorder were placed on a table between the participant and researcher. Some care was taken in the positioning of the microphone to ensure a good quality recording of the interview (Ezzy, 2002; Kvale, 1996). The interviews did not commence until each participant was comfortable with the location of the equipment and the equipment had been tested and determined to be in good working order (Marshall & Rossman, 1999). Audio-taping was paused during any external interruptions to the interview, or if participants became distressed or requested that
recording stop. Interviews were recorded on a Sony IC recorder Model ICD-B200 with a Sony stereo microphone Model ECM-DS70P.

**Interview Technique**

The researcher began the first interview by asking the open ended question “What is it like to communicate on a daily basis with students with multiple and severe disabilities?” or “What is it like working with students with MSD?” Participants were given the opportunity to talk with minimal interruption (Josselson & Lieblich, 1995; Marshall & Rossman, 1999; Mishler, 1986). This was intended to increase the likelihood the that the researcher would hear the participant’s account of his or her lived experiences and begin to understand the meaning of these experiences in the participant’s language (Minichiello et al., 1995). Nevertheless in order to clarify issues or seek further information the researcher occasionally:

(a) probed for elaboration of talk considered central to the research questions of the study by asking follow up questions (Kvale, 1996), such as “Can you say more about…..?”,

(b) clarified that she had understood the meanings that participants held of the words and phrases they used by paraphrasing what participants had said (Kvale, 1996; Marshall & Rossman, 1999), and

(c) verified interpretations that she had made during the conversation by describing her understanding of the main points made by the participants and asking for feedback.

**Completion of interview**

Prior to ending the first interview, the researcher asked the participant whether there was any further information he or she wanted to add or questions he or she wanted to ask (Ezzy, 2002; Kvale, 1996). The researcher then collected demographic information that included the participant’s qualifications and years of work experience. The researcher described to each participant the next steps in the research process. These included the researcher: (a) transcribing and analysing the audio taped interview, and (b) sending the transcript to the participant for verification of transcript accuracy and the researchers’ interpretations. Participants were also invited to attend a second, follow-up interview.

The researcher explained that the transcript of the first interview would contain the researchers’ initial interpretations of the topics raised by the participants in the form of categories, and that these would be discussed further at the second
interview. Transcripts also contained the researchers’ coding of text into categories. Arrangements were then made for the second interview.

The Second Interview

The main purposes of the second interview were: (a) to collect additional data from participants, and (b) to provide an opportunity for verification. Following transcription of the first interview each participant was electronically sent a copy of the transcript of their interview prior to attending the second interview. Participants were invited to check the transcript for accuracy and make any changes they deemed appropriate, as well as give feedback in writing on their transcript about the researchers’ coding of text into categories (Ezzy, 2002; Kvale, 1996).

Therefore, in the second interview participants were given a further opportunity to reflect on their experiences (Goodfellow, 1997) and elaborate on issues they had raised in the first interview (Minichiello et al., 1995). Secondly, they were given the opportunity to discuss any changes, deletions or additions that they wanted made to the transcript of their first interview. The researcher began the interview by asking the participant if there were any changes they wanted to make to their transcript, and if there were any issues or events talked about in the first interview upon which they would like to elaborate. Also if when transcribing the first interview the researcher identified any issues relevant to the research questions that required elaboration or clarification, she asked the participant about these. Finally, participants were asked to give feedback on the researcher’s interpretations reflected in the coding categories included on the transcript of their first interview (Minichiello et al., 1995). If required, the researcher mentioned any ambiguities in the language used by the participant in the transcript and checked for the participant’s meanings. For example, the researcher asked one participant to elaborate upon what she meant by a “holistic approach” to communication.

The structure of the second interview was different for Stages 3 and 4, compared to Stages 1 and 2. In Stages 3 and 4 the second interview was a group interview rather than an individual interview. The second interview was conducted in this way to accommodate the work schedules and expressed preferences of the participants, thereby ensuring that they had the opportunity to participate, particularly for the purpose of verification (Iacono & Cameron, 2009). The process of the interview shared some similarities with focus group methods in that participants often responded to each other’s comments. However, the purpose and information sought
was the same as that for the individual interviews in Stages 1 and 2 (Lambert & Loiselle, 2008). It was therefore possible to approach the data collected in the group interviews in the same way as that collected in the individual interviews (Lambert & Loiselle, 2008).

During the second interview the researcher made notes directly on the transcript of the first interview. The second interview was also audio taped and transcribed using the same methods as for the first interview. The transcript of the second interview was then subjected to the same thematic analysis as for the first interview.

**Venues**

Interviews took place at a time and venue suitable to each participant. Venues were selected to ensure the privacy of the participant and a suitably quiet location for audio taping of the interview (Marshall & Rossman, 1999). The researcher travelled to participants to conduct interviews, the only exception being the second interview in Stage 4. Interview venues in Stage 1 included participants’ workplaces (schools) and homes. Nine participants were interviewed in the workplace and two at their home. In Stage 2, interviews were conducted in participants’ schools. In Stages 3 and 4, interviews were conducted in participants’ offices. The second, group interview in Stage 4 was conducted as a teleconference, to enable the participants in rural areas to participate (Iacono & Cameron, 2009), particularly for verification.

**Research journal**

Immediately following the completion of the first interview the researcher wrote field notes in her research journal. Kvale (1996, p32.) notes that transcriptions are a construction that “give a very de-contextualized version of the interview”, so it is important to write field notes in a research journal to provide some context. These notes also contained: (a) procedural notes including suggestions for making improvements to future interviews, (b) initial interpretations of themes that emerged during the interview, (c) links between themes raised in the interview and relevant professional literature, and (d) issues that warranted further reflection such as contradictory views expressed by participants working in the same context. Notes were also made in the research journal during the subsequent transcription and analysis stages, particularly for Stage 1. These included notes about: (a) categories used in coding of data; (b) whether categories represented supports or obstacles and
reasons for their effect, and other interpretations of meaning; (c) links to professional literature and professional contextual knowledge, and (d) links to broader social discourse or conceptual frameworks that could be used in interpretation, such as the medical model, ICF-CY, complexity theory.

**Transcription**

The researcher transcribed the interviews as soon as possible after interviews were conducted. A copy of the audio-recording of each interview was stored on micro-cassettes. Tapes, transcripts and subsequent working texts were all labelled with participant’s pseudonyms to protect the identity of each participant. The researcher listened to each tape uninterrupted in entirety prior to commencing transcription in order to achieve sensitization to the content (Silverman, 2001). The audio-recording of each interview was transcribed in full and verbatim by the researcher with all words written down in a continuous flow, using conventions or rules for transcription (Ezzy, 2002; Kvale, 1996). A variety of codes were used to denote pauses, phrase boundaries, overlaps in speaking turns and intonation (Bailey & Tilley, 2002). While the researcher’s utterances were transcribed (Ezzy, 2002) and noted by the initial R, all identifying information was removed from transcripts (Kvale, 1996). Pseudonyms replaced participants’ names. Other proper nouns were not transcribed but indicated by the use of general descriptors enclosed within brackets, such as [student] in place of the name of any student mentioned by a participant during their interview. Similarly [teacher], [school], and [place] were used to ensure confidentiality. The conventions used for transcription are included in Appendix 12. These interview transcripts formed the raw data for analysis (Higgs & Adams, 1997).

**ANALYSIS AND DATA MANAGEMENT**

Each transcription was subjected to thematic analysis (Coffey & Atkinson, 1996; Creswell. 2008; Ezzy, 2002; Richards, 2005). Thematic analysis of the data was chosen because the purposes of the study were to identify contextual factors, which could be represented as emergent categories and themes, as well as inter-connections between them, and then develop a model grounded in the data (Coffey & Atkinson, 1996; Creswell, 2008; Ezzy, 2002). Therefore, the design of this study shared some similarities with grounded theory (Strauss & Corbin, 1998); being the emergence of categories and themes from the data, and the development of a model or theory
(Creswell, 2008; Ezzy, 2002). However, despite similarities between methods employed in this study and grounded theory, there were a number of reasons for the systematic analysis procedure of grounded theory not being chosen for this study. These included that: (a) the development of coding categories in this study was influenced by the extant literature and conceptual framework for the study; and (b) the assumptions of grounded theory, that there is one core category and linear causality leading to consequences (Creswell, 2008; Strauss & Corbin, 1998), are inconsistent with the conceptual framework of this study. While the development of coding categories was influenced by the extant literature and conceptual framework for the study, as described below, they were not however pre-determined and so content analysis was not appropriate (Coffey & Atkinson, 1996).

Therefore, the analysis employed in this study followed processes recommended by Tesch (1990) and Creswell (2003) for mining the data for participants’ perceptions and experiences of factors influencing the communicative interactions of students with MSD. Eight steps were undertaken to analyse the data, from developing a preliminary list of categories to the emergence of themes from inter-connections between categories. This process was designed take a systematic approach to data management and handling which facilitated providing detailed description, thus adding rigour to the study (Freeman, de Marrais, Preissle, Roulston, K. & St. Pierre, 2007). The steps are described below. In Stage 1 all data were handled manually, facilitating close familiarity with the data and an understanding of the process of coding and interpreting themes (Basit, 2003).

Step 1: Initial Analysis and Preliminary List of Categories

The initial process of identifying categories for coding text took place predominantly in Stage 1. The researcher conducted an initial, brief analysis of the data from the transcripts of the first three interviews to obtain an overview of possible categories for coding. These transcripts were read several times with the researcher noting the topics that were talked about and mapping these in her research journal in rough diagrammatic form. An excerpt of these notes and diagram are included in Appendix 13. These topics are listed in Table 3.5 and comprised the preliminary list of categories for coding data.

It was apparent at this initial brief analysis that there were levels of coding. The broadest level, incorporating the first four categories based around the interview
questions, appeared too broad. This was because the participants raised all the other issues depicted in subsequent categories within the contexts of those first four categories. So the same issue, for example collaboration with SLPs, could be both a support and an obstacle within the same participant’s transcript.

Interactions between the factors identified by participants were also apparent at this initial stage of analysis, for example social grouping in a classroom, time constraints and inadequate Staffing interacted to produce obstacles. These were often talked about by the participants so there were strong markers in the data. The researcher noted these interactions in her memos for the initial analysis. An excerpt from the researcher’s journal with an example of such a memo is included in Appendix 14. The researcher also noted the challenge inherent in representing the complexity of interactions between factors described by the participants.

At this stage the researcher also highlighted on the transcripts words, phrases or metaphors describing participants’ individual experiences, such as “isolation”, that could assist in interpreting the meaning or influence of the factors they identified. In the next step these initial categories were taken back to the data to begin to apply them, and in the process both refine the categories and explicate their definitions.

**Step 2: Coding the Data**

The researcher then went back to the first three transcripts which were stored electronically on her word processor. She identified text segments which appeared to go together to talk about a particular topic (Creswell, 2008). These text segments were coded in the right hand margin using the “track changes” function, and codes were applied from the preliminary list of categories. As she grouped segments of text she asked herself the question: “What is this about?”, and applied codes for categories (Coffey & Atkinson, 1996). The codes were a mixture of in vivo codes, such as those in the preliminary list of categories and any new categories that emerged while analysing text and codes derived from the theoretical framework and research questions, such as Professional Development (Coffey & Atkinson, 1996; Creswell, 2008). The codes were comprised of a word or phrase representing the heading for the category, such as School Context.
Table 3.5

*Preliminary List of Categories for Coding Data*

<table>
<thead>
<tr>
<th>Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher’s experiences of communicating with students</td>
</tr>
<tr>
<td>Supports for student’s communication</td>
</tr>
<tr>
<td>Obstacles to student’s communication</td>
</tr>
<tr>
<td>Professional learning/ communication education</td>
</tr>
<tr>
<td>Characteristics of students</td>
</tr>
<tr>
<td>Class structure</td>
</tr>
<tr>
<td>Infrastructure/physical environment</td>
</tr>
<tr>
<td>Teacher characteristics</td>
</tr>
<tr>
<td>Context of school/ culture of the school</td>
</tr>
<tr>
<td>Collaboration with speech-language pathologists</td>
</tr>
<tr>
<td>Collegiality with other teachers at the same school</td>
</tr>
<tr>
<td>Other specialist teachers, eg. IST(V)</td>
</tr>
<tr>
<td>Change</td>
</tr>
<tr>
<td>Government departments</td>
</tr>
<tr>
<td>Integration</td>
</tr>
<tr>
<td>Funding and resources</td>
</tr>
<tr>
<td>Relationship with the student</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Staffing</td>
</tr>
<tr>
<td>Attitudes towards student/ perceptions of student’s abilities</td>
</tr>
<tr>
<td>Social inclusion: community access and participation/ broader social needs of students</td>
</tr>
<tr>
<td>Teacher’s aides</td>
</tr>
<tr>
<td>Technology and equipment</td>
</tr>
<tr>
<td>Networking with other special education teachers in the area</td>
</tr>
<tr>
<td>Inappropriate practices, “objectification of the student”</td>
</tr>
<tr>
<td>Home context including institutional residential</td>
</tr>
<tr>
<td>Continuity and consistency in communication programs</td>
</tr>
<tr>
<td>Communicative interaction/ strategies</td>
</tr>
<tr>
<td>- creating opportunities for communication</td>
</tr>
<tr>
<td>Communication as a priority</td>
</tr>
</tbody>
</table>

The researcher also included in the track changes links to numbered memos written in her research journal, an example of which is included in Appendix 15. These memos noted any apparent new categories, metaphors or emerging themes and connections between categories to be used for analysis (Mason, 1996; Richards, 2005). This process preserved some of the context of text segments and therefore assisted in interpretation of meaning (Coffey & Atkinson, 1996). The researcher undertook this process for the first three transcripts only. Following coding these transcripts, she attempted an initial working definition of the categories for application to subsequent transcripts (Richards, 2005). This was then put aside to be revised in Step 4.
Step 3: Assembling Text Segments into Categories

The researcher created electronic folders for the categories and assembled text segments from the first transcript into these folders for further analysis of categories. When coding text segments the researcher experienced some uncertainty around the boundaries of text segments. At the point of assembling text segments into categories the boundaries of text segments appeared “fuzzier” (Tesch, 1990) than when first coded. This uncertainty was managed by copying some of the text surrounding segments when assembling them into categories so that some context would be present to assist interpretation if necessary (Tesch, 1990). Information in the right margins using the track changes function, including links to memos in the research journal, “moved” with text segments when these were “de-contextualised” in category folders, maintaining a manual link back to the data and forward to themes (Dewalt & Dewalt, 2002). When all the text segments were assembled into categories for the first transcript, each folder was printed out in order to work further with the categories and links between them.

Step 4: Writing Working Definitions for Categories

When the folders for each category had been printed out the researcher read through each one and defined each category for future use with further participant transcripts. The definitions of categories are included in Appendix 16. In order to define categories the researcher read through the text segments and asked the question: “What are these about?” Through this process it became apparent that there were overlaps between categories, and this was evident in the comments in the right margin. This is a common issue in the analysis of qualitative data (Mason, 1996). The researcher followed the recommendations of Mason (1996) to manage this uncertainty. This involved a two-fold approach: (a) viewing overlaps between categories as representing connections between them that require further interpretation, and (b) maintaining an attitude towards the categories as works in progress that would be continually refined as further data were collected and transcripts analysed.

At this point the researcher decided to combine some categories because they did not appear to be separate categories, for example “resources/equipment” plus “technology/equipment”. These reductions were included in the definitions of categories included in Appendix 16. Category definitions were also designed to assist
with consistency of coding (Seidel & Kelle, 1995), and with the process of establishing inter-coder reliability.

**Step 5: Applying Coding Categories to All Data Collected**

Having written working definitions for the categories, the researcher then conducted Step 3 for the subsequent two transcripts. A sample of category folders containing text segments is included in Appendix 17. No further refinements were required to the definitions of categories so the researcher proceeded to use these categories for coding all the remaining transcripts for Stage 1. At this point the researcher reflected that overlaps between categories represented connections between categories, and noted these in the right margins of transcripts for later use in the interpretation of relationships between categories.

**Step 6: Summarising Information about the Categories**

Working with the text assembled under each category, the researcher began summarising what each participant said onto a schematic diagram but quickly realised that this mechanism was unwieldy and not adequately systematic. So the researcher decided to develop a spreadsheet that would be used in conjunction with a schematic diagram to assist with writing up the findings (Creswell, 2008). The spreadsheet is included as thematic analysis summary tables in Appendix 18. The development of this summary table enabled the researcher to take a more systematic approach to organising the analysis of the data (Coffey & Atkinson, 1996).

The researcher then went back to the categories with the table and re-summarised the data contained within each category. This was done to assist with the description and interpretation of the meaning of each category. This information included several aspects: (a) descriptions of the category, for example ratios of staff to students; (b) whether each category was a support or obstacle or both and under what circumstances, for example a particular staff to student ratio was an obstacle; and (c) reasons given for the category being a support or obstacle, for example the staff to student ratio was an obstacle because it meant staff were too busy to conduct communication programs. The researcher also included in the table number references back to the text for potential quotes. The use of the summary table assisted with the process of “staying close to the data” while simultaneously moving beyond it to
compare and contrast coded categories to form connections and see patterns (Coffey & Atkinson, 1996, p.32).

**Step 7: Interactions or Relationships between Categories**
The researcher then attempted to represent the relationships or connections between the categories, as these emerged from the data (Coffey & Atkinson, 1996; Creswell, 2008; Richards, 2005). She began by looking at the summaries of categories and comparing and contrasting what the participants had said. Notations in the right margins (track changes) were used for information about connections between categories. The researcher read through her memos where she had also noted connections between categories as well as metaphors and emerging themes.

The process of interpreting the relationships or connections between the categories was also influenced by the conceptual framework for the study. Categories that appeared to operate within the same context were grouped together. So the categories of knowledge and skills and attitudes, perceptions and beliefs deemed to belong to an individual were grouped together under the super-ordinate heading of Teacher Characteristics, for example. Another salient example was the number of factors, such as Class Structure, Staffing, Learning Support Officers (LSOs), Principal, Time Constraints, located in the school context. These factors were grouped together under the super-ordinate heading of School Context. Other categories that appeared to be located or to operate at the same level, for example government departments, were also grouped together. Therefore, interactions between categories that produced effects were noted between categories within the same context or at the same level and between categories at different levels.

It became apparent that some categories operated at, or interacted with, multiple levels. For example, it appeared from the data that Change could affect obstacles and supports at different levels. Also, Time was a category that appeared to operate at multiple levels. These interactions were further analysed in the description of themes.

**Step 8: Themes**
The super-ordinate headings that emerged from grouping categories formed the themes of the study. Hence the themes were based upon the contextual levels at which the categories operated. In this way a large number of factors were organized into six
to eight main themes (Coffey & Atkinson, 1996; Creswell, 2008). The interpretation of the interactions between themes was influenced by the conceptual framework and used to develop the diagrammatic representations that accompany the descriptions of the results for each stage. The use of diagrammatic representations assisted the process of organising the themes in relationship to each other and with interpreting how the interactions between themes produced supports or obstacles (Coffey & Atkinson, 1996; Mason, 1996; Miles & Huberman, 1994; Richards, 2005). Those categories, such as Change and Time that operated at, or interacted with multiple themes were represented as crossing themes in the diagrammatic representations.

While categories, such as Teacher Characteristics were nested within other themes, such as School Context the data were also analysed for the directions of interactions or influences. For example, the data were analysed for the influence of individuals, such as teachers on broader themes, such as the School Context. The data were also analysed for the influence of broader themes, such as Government Departments on themes nested within them, such as School Contexts or Individuals. This analysis was based on the rich language and many metaphors used by participants (Coffey & Atkinson, 1996; Miles & Huberman, 1994; Riessman, 1993). So, for example, language such as “chipping away” (Penny), “battle” (Polly), and “campaign” (Penny) was used to interpret the influences of individuals on broader themes (contextual levels). Similarly, language such as “having the rug pulled out from under your feet” (Jake), “good intentions on the backburner” (Penny) and “isolation” (Derek) was used to interpret the influences of broader themes on themes nested within them, such as Individuals. As another example, words such as “discrimination” (Penny) were used to analyse the influence of broader themes, such as Geographical Region or Area and Government Departments on themes nested within them, such as School Context. The themes were used as the starting point for reporting the results of the study.

**Subsequent Analysis: Stages 2 to 4**

In Stage 1, text segments were manually assembled into category folders (Tesch, 1990). With the understanding of data management and analysis achieved through manual handling in Stage 1, qualitative software (NVivo 8, QSR International) was employed to assist with management of all the subsequent data collected in Stages 2 to 4 (Basit, 2003).
The definitions of categories developed in Stage 1 were then applied to the coding of data collected in subsequent stages. Because the groups of participants differed in profession and/or particular context, the researcher was alert to the possibility of the emergence of different categories at each stage. Therefore Steps 1 to 4 from Stage 1 were undertaken with the first transcript obtained in Stage 2 for the purpose of identifying new categories. The new categories identified and used for coding data in Stage 2 were: (a) Mainstream Classroom Setting, (b) Class Activities/Curriculum and Instructional Practices, (c) Peers without Disabilities, (d) Families’ Characteristics, and (d) Geographical Location. These new categories, in addition to the categories from Stage 1 were then applied to the coding of all the data collected in Stage 2.

The same process was then undertaken in Stages 3 and 4. The first four steps from Stage 1 data analysis were applied to the first two transcripts obtained in Stage 3, and the first two transcripts obtained in Stage 4. When new categories were identified, these were added to the existing definitions of categories and applied to the coding of all data collected in these final two stages. The new categories identified and used for coding data in Stages 3 and 4 were: (a) SLPs’ Experiences, (b) SLPs’ Characteristics, (c) Communication Intervention Paradigm, (d) The Role of AAC, (e) Collaboration with Teachers, (f) Collaboration with Teachers and Families, (g) Professional Development for SLPs; (h) SLPs’ Offices; (i) Recruitment and Retention of Professionals; (j) Outreach Service; (k) Geographical Location Impacts on Schools; (l) Geographical Location Impacts on Families; (m) Other Services; (n) The Role of Technology; (o) Recommendations for Service Delivery; and (p) Professional Discourses.

Summarising information about each category, as well as Steps 7 and 8 from Stage 1, were also undertaken in Stages 2 to 4 for the interpretation of themes. Diagrammatic representations were developed for the emergent themes and relationships between them in each stage. These are presented in subsequent chapters reporting results. Visual comparison of these four diagrams was intended to assist in identifying similarities and any differences in the perceptions and experiences of participants in different professions and/or contexts.
RIGOUR AND CREDIBILITY

There were three main approaches incorporated into the design for maximizing the rigour of the study and the credibility of the findings (Eisenhart & Howe, 1992; Freeman et al., 2007; Maxwell, 1992; Mishler, 1990). These were: (a) triangulation through the inclusion of a range of participants, (b) verification, and (c) inter-coder reliability.

**Triangulation**

The inclusion of four different groups of participants was designed to gather a range of perceptions and experiences of supports and obstacles to the communicative interactions of students with MSD. In conjunction with an ongoing process of interrogating the data and looking for differences in perceptions and experiences of the influences of emergent categories and themes, this mix of participants was designed to guard against simplistic interpretations (Coffey & Atkinson, 1996; Richards, 2005). An example of the operation of this approach related to the interpretation of the theme of the School Context. From analysis of data collected in Stage 1 it appeared that the type of educational setting influenced the communicative interactions of students with MSD within the theme of the School Context. However, analysis of data collected in Stage 2 contradicted this interpretation, requiring that the data be further interrogated and different questions asked about what was happening in the school context that either supported or hindered the communicative interactions of students with MSD (Coffey & Atkinson, 1996; Dewalt & Dewalt, 2002).

**Verification**

Verification is a common practice among qualitative researchers for ensuring the accuracy of interview transcripts (Kvale, 1996). All participants provided verification of their transcripts and feedback about coding by email. There were no amendments required to transcripts of first interviews for any participants. In Stage 1 nine of the 11 participants attended second interviews. The remaining two participants were not able to attend due to moving interstate or overseas. There were no changes required to the researchers’ coding for categories and interpretation of themes in Stage 1.

In Stage 2, only two participants attended second interviews due to work commitments at the end of the school year. However, all participants provided
verification of their transcripts and interpretation of themes by writing on their transcripts and returning them by email. No amendments were required.

In Stage 3, six of the eight participants attended the second group interview. Two were unable to attend due to being on leave. However, all participants provided verification by email of their transcripts and the researchers’ interpretation of themes. In the second interview for stage 3, the researcher was given updated information about one theme, and two amendments were required to the organization of two categories within themes. This information was incorporated into the reporting of results for this stage.

In Stage 4, only three of the eight participants were involved in the teleconference second interview. Of the remaining participants, three were on extended leave, one had been seconded to another position, and one experienced technical difficulties that resulted in her missing the teleconference. All participants provided verification by email of their transcripts and the researchers’ interpretation of themes. Three amendments were required to the researchers’ coding involving the re-organisation of categories into themes. For example, the category of Families’ Characteristics was moved from the theme of Outside the School to the Individual Level, thus requiring a re-interpretation of the influence and place of families in the communicative interactions of students with MSD. This information was incorporated into the reporting of results for this stage.

**Inter-coder reliability**

While it was recognized that the more common practice in qualitative studies is to use consensual agreement between co-researchers, this was not logistically possible for the current study, so inter-coder reliability measures were undertaken to add further rigour to the study (Eisenhart & Howe, 1992). An independent person, a research assistant with experience in qualitative research, coded randomly-selected transcripts for three of the eight participants (27.3%) in Stage 1, two of the five participants (40%) in Stage 2, and two of the eight participants (25%) in each of Stages 3 and 4. She was given instructions that included the definitions for coding categories, and then independently coded the transcripts without any discussion with the researcher.

Subsequent analysis compared the coding of transcripts into categories by the independent person with those noted by the researcher. The process of comparison involved four steps (Creswell, 2008). In the first step, text segments identified by the
researcher were numbered from 1 onwards from the beginning of the first transcript to the end of the second or third transcript in the sample for each stage. Then text segments identified by the independent coder were compared to the above. If the identification of a text segment by the independent coder was not consistent with that identified by the researcher a cross was marked against the number for that text segment and no further comparison of coding for the text segment was conducted. If the identification of a text segment was consistent then the coding of the text segment was compared. If the code applied to the text segment by the independent coder was the same as that applied by the researcher then a tick was placed against the number for that text segment. If it was not the same a cross was placed. This process continued until the sample for each stage was completed. An example of the comparison of coding by the independent coder and the researcher is included in Appendix 19. In the final step, the total number of ticks was counted and divided by the total number of text segments. This digit was multiplied by 100 to yield a percentage. This process yielded inter-coder reliability ratings of 87.5% for Stage 1, 92% for Stage 2, 95% for Stage 3 and 92% for Stage 4.

RESULTS
The reporting of results involved linking themes that emerged from all the participants’ interviews in a particular stage into the form of an overarching story (Miles & Huberman, 1994; Riessman, 1993). What individual participants at each stage said about the categories and themes identified were synthesized through comparison and contrast. The researcher looked for both similarities and differences across participants in the ways they described the influences of the categories and themes (Bailey & Tilley, 2002). Both prevalent and contrasting views were included in the reporting of results (Bailey & Tilley, 2002).

The researcher began by summarizing participants’ experiences of communicating or supporting the communication of students with MSD, drawing on descriptors and feeling words. The reporting of results was then guided by the diagrammatic representations developed in Step 8 of the analysis for each stage.

The researcher described the findings for each theme beginning with the Individual Level (for example student, teacher), and proceeding to the Classroom Context, School Context, District/Region or Geographical Area, Government Departments and Societal factors. The researcher also described connections or
relationships between themes as these had emerged from the data. This included describing themes that interacted with many other themes and were represented in the diagrams as crossing other themes, such as Professional Development, Change and Time. Categories were presented as contextual factors with descriptions of how these acted as supports and/or obstacles.

Extensive quotes from individual participants were selected not only to make visible the voice of the participants (Coffey & Atkinson, 1996; Freeman et al, 2007; Riessman, 1993), but also to illustrate and support the validity of the interpretations made of the text (Richards, 2005). These final accounts represented the outcomes or results of the study and are reported in subsequent chapters.

The results for Stage 1 are reported in Chapter 4. A summary of the findings for Stage 1 have also been published in an international peer-reviewed journal and a copy is included in Appendix 20. The results for Stage 2 are reported in Chapter 5. A summary of these findings have also been published in an international peer-reviewed journal, a copy of which is included in Appendix 21. Similarly, results for Stages 3 and 4 are reported in Chapters 6 and 7 respectively. Findings from these stages will also be submitted to appropriate peer-reviewed journals.

SUMMARY
This chapter has outlined the qualitative methodology for the study. The study was conducted in four stages involving a total of 32 participants who met criteria for the study but differed in profession and the context of their work. In the first in-depth interview with each participant, four open-ended questions were used to guide responses to the research questions. Interviews were audio-taped and following transcription, a step-by-step process of thematic analysis was employed. This analysis yielded categories and themes representing levels of contextual factors perceived by participants to influence the communicative interactions of students with MSD.

In the second, follow up interviews these categories and themes were taken back to participants for verification. The methodology was designed to address issues of rigour and reliability through triangulation of data from different groups of participants, verification, and inter-coder reliability measures. Amendments were made to the categories and themes following the verification process in the second interviews, and the findings which resulted from the four stages are presented in the following four chapters.
CHAPTER 4
STAGE 1 RESULTS: TEACHERS IN SPECIAL SETTINGS³

“I do think communication is the key to everything with these kids” (Polly).

In this chapter results are presented in five parts, containing the main themes that emerged from the factors identified by participants based in special schools (SSPs) and support units (SUs). Each theme represents a different level at which the factors were reported to operate and these are also displayed in Figure 4.1. Part 1, Personal Journeys, encompasses supports and obstacles at the level of individual teachers and their students with MSD. Part 2, Interactions with Context Variables, then presents supports and obstacles that teachers located in the classroom and school contexts. Part 3, Communication Education for Teachers, presents findings regarding the professional development of teachers and the multiple levels at which this occurred. Part 4, Other People outside the School Context, presents findings regarding the role of the home context, other professionals such as speech-language pathologists (SLPs) in the geographical region or area, as well as government departments. Finally, Part 5, Beyond Schools, presents findings regarding social inclusion and community attitudes about disability. In Figure 4.1 Time and Change are represented as crossing almost all levels because they were factors identified by participants as interacting with other factors, or operating at multiple levels. Findings for these factors are therefore presented within different parts of the chapter. Each part also contains tables summarising the factors and how they act as supports and obstacles. The chapter concludes with a summary.

PART 1: PERSONAL JOURNEYS

Regardless of the length of their teaching experience (5-30 years), 10 of the 11 teachers described communicating with students with MSD as “difficult” (Zara, Donna, Polly), “challenging” (Jake), “daunting” (Derek), “hard” (Gary), “overwhelming” (Leanne) and “very frustrating” (Penny, Sally, Barry). Jake also said: “It was a real challenge for me. I really had to get through to each one of them so that they felt like someone was listening to them”.

³ A summary of this chapter has been published in an international peer-reviewed journal. A copy of this article is included in Appendix 20.
Yet teachers also talked about the “rewarding” (Derek, Donna, Sally) and “enjoyable” (Gary, Polly) experience of eventually finding ways to communicate with individual students. Gary said: “What I’ve enjoyed is how we’ve been able to engage with the kids”. Derek added: “If you do get something going it can be absolutely fantastic. I used to be just over the moon with the little things I used to do”. Sally, Polly, and Leanne talked about evolving from having no experience to “loving” communicating with students with MSD. Polly commented: “Now, seven years later it’s second nature. It’s very, very enjoyable. Once I have worked out how they communicate, I’m fine and I love it”.

Figure 4.1 Systemic factors identified by teachers in special settings
Some teachers expressed mixed emotions about their experiences of both successes and failures in communicating with their students. Barry said:

Well some things you feel are really good, you feel happy about them. A lot of things you feel ashamed that you haven’t actually managed to get something out of a certain student. So there are pluses and minuses.

Teachers identified a range of factors that they perceived to support or present obstacles to their ability to communicate with their students with MSD. Most teachers spoke initially about factors at the level of individuals; their students, themselves and the relationship between them. These are represented as the innermost circles in Figure 4.1, and are summarised in Table 4.1.

Table 4.1  
**Supports and Obstacles at the Level of Individuals (Stage 1)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of students</td>
<td>Complex medical conditions, Complex personal care needs, Complex communication needs</td>
<td>Challenging behaviours.</td>
</tr>
<tr>
<td>Teacher characteristics</td>
<td>Rapport with students, Life experiences, Gaining professional experience, Turning point experiences, Positive attitudes, perceptions and beliefs about students’ rights and abilities</td>
<td>Lack of experience, Attitudes, perceptions and beliefs; under-estimating student’s ability to communicate, negative attitudes towards AAC and assistive technology</td>
</tr>
<tr>
<td>Relationship between teacher and student</td>
<td>Interpreting student’s communicative behaviours, Knowing student’s preferred objects and activities, Enhancing communication skills, Resolving challenging behaviours, Having student in the class for more than one year</td>
<td>Time required to build relationships with individual students, Potential dependence on one teacher for successful communication</td>
</tr>
</tbody>
</table>

**Characteristics of Students**

Teachers perceived that characteristics of their students with MSD could present obstacles for engaging in communication. The obstacles raised were: (a) complex medical conditions, (b) complex personal care needs, (c) complex communication needs, and (d) challenging behaviours.
**Complex Medical Conditions**

Teachers reported that the general wellbeing of students with MSD was an important factor in the success of communication. Molly said: “*When they’re sick and you don’t know exactly what’s going on then communication is hard to get going*”. Molly told a story about one student who cried constantly due to pain. She noted that it was very difficult to engage the student in any effective communication. When the student returned following surgery for gastro-oesophageal reflux, Molly described her as being “*like a different child*” because she was happy and much easier to engage in communication.

Teachers also reported that the medical conditions of students may require them to take a complex regime of medication whose side effects may not be known at the outset. Gary reported that at times medications for epilepsy may need to be adjusted frequently to determine therapeutic doses. He perceived that this could cause erratic behaviours in students, making it very difficult to interpret their potentially communicative behaviours.

**Complex Personal Care Needs**

Teachers described students with MSD as also having complex personal care needs, such as requiring assistance with eating and drinking, toileting, and physical management. Penny described one student who had severe scoliosis and very little movement, and another who required enteral nutrition and used a nebuliser for asthma management. Teachers perceived that the “*physical, labour-intensive*” (Donna) nature of meeting these needs could limit opportunities for communication with individual students. Polly said: “*They’ve got communication needs and they’ve got physical needs. When you’ve got to physically toilet and feed these students, they’re obviously labour-intensive. Their actual disability becomes part of why you don’t have time to communicate*”.

**Complex Communication Needs**

Teachers described the forms of communication used by students with MSD, for example eye gaze, smiling, subtle facial movements and vocalisations, as idiosyncratic and often pre-intentional. Donna commented: “*Some of those children mainly communicate with their eyes. You have to be tuned in to the various sounds that they make and you come to understand that some of those different sounds have specific meanings*”. Most teachers reported experiencing difficulty not only
recognising and accurately interpreting students’ potentially communicative
dependencies, but also knowing whether their choices were intentional. Barry said:

*You wonder whether you are reading that communication correctly. The main thing is having to scan the kids to see if there’s a communicative grunt, movement, smile, frown whatever. Some will actually give a response and others you really have to search for any response they are giving.*

Several teachers perceived that their students were “*passive*” (Penny). Leanne observed that some students seemed to have little motivation to communicate: “*Even though you’re working on communication, you don’t feel that the kids are making meaningful efforts at communication because it doesn’t matter to them…they’re quite happy to just sit in their own little world*”. Zara, Barry, Leanne and Sally thought that their students’ limited spontaneous communication and responsiveness was an obstacle to engaging in communicative interaction. Several teachers commented that it was very difficult to stay motivated and to continue to create opportunities for communication with students who showed low responsiveness. Sally said: “*It’s very difficult to work with those students you do not get much response from, and maintaining your enthusiasm and your energy for communicating with those students is very hard*”.

Teachers also commented that communicating was often slow and physically difficult for these students, particularly if aided communication systems such as objects and symbols were introduced. Teachers reported having to constantly encourage, and often physically assist students to continue communicating. Several teachers also perceived that progress in establishing communication with students with MSD was very slow. Sally commented: “*You could be going over and over and over a similar process to actually try and reach a goal. You don’t see a lot of progress some times and that’s really hard*”.

**Challenging behaviours**

A few teachers also spoke about having students with MSD who had challenging behaviours. Jake recalled:

*I was appointed to a very difficult class with high support needs and we had some severe problem behaviours. I had a girl with cerebral palsy and a severe intellectual disability who would scream in all these different situations and people used to put on their headphones to cope with her.*
While teachers reported experiencing difficulty making sense of some behaviours, they also reported being aware of their potentially communicative function. In addition to the characteristics of their students, teachers talked about the role of their own characteristics in hindering, but also supporting communicative interactions.

**Teacher Characteristics**

Nine of the 11 teachers talked about a personal process of learning how to communicate with students with MSD. They perceived that their personal attributes, experience and attitudes towards the students were part of this process.

**Lack of Experience**

Many teachers described their initial lack of experience teaching students with such complex communication needs. Leanne, Polly and Sally recalled that when they first arrived at their current school, they had no experience communicating with students with MSD, and no skills or knowledge about augmentative and alternative communication (AAC). Polly said: “When I first started, it was hard because I had the most severe class of six students and not having any communication training in my life - that was daunting”. Similarly, teachers in the early stages of their career found their lack of professional experience an obstacle. Having just completed a Masters in Special Education, Jake commented: “I felt like I’d been thrown into that class because I was freshly trained and fresh out of Uni so it was particularly difficult”. However, teachers also reported that their personal attributes, and gaining experience, came to support them to communicate with their students.

**The Value of Personal Attributes and Experience**

Several teachers perceived the value of a personal affinity for communicating with students. Polly said: “I think if you’re a natural communicator or got a feeling for the kids, you soon learn to do it, if you’re willing to just sort of go into it”. Derek also commented that: “One real challenge is to build positive rapport with the students and I see it as an inner thing that you’ve either got or you haven’t”. These teachers perceived that such personal attributes supported their ability to learn to communicate with their students.

Two teachers also talked about benefits that came from the richness of their life experience as parents of adult children with disabilities. Molly perceived this experience as supporting her ability to communicate with her students. She said: “I have a 26 year old son with cerebral palsy so I have had a lot of dealing with people
with multiple disabilities over that time. A lot of it is life experience”. She commented that her personal experience has also helped her to communicate effectively with parents. She said: “It does help me to communicate with parents as well because they think: ‘She’s not coming as a teacher, she’s coming as someone who knows what’s going on’”.

Several teachers also talked about the value of the professional experience they had gained, in learning how to communicate with students with MSD. Molly said:

_I think the longer you work with children with severe disabilities, the more communication you get going with them and the more at ease and the more you’re wanting to communicate with them anyway. So it just becomes part and parcel of what you’re doing._

Gary talked about how, as a teacher, he was constantly learning how to communicate with students. He commented that communicating is “something that you learn over time and that you learn in an on-going way”. He also commented that experience working in different settings had enabled him to bring new ideas, perspectives and practices into his current school setting.

**Turning point experiences**

Several teachers recounted turning point experiences in their process of learning to communicate with students with MSD. These were experiences identified by teachers that changed their assumptions about their students’ ability to communicate. These experiences also changed how they interacted with students with MSD. Sally said:

_One of my most memorable teaching moments was with a student who [only] had the ability to move her little finger and her eyes. I made an assumption (it was my first year working with high support needs students) that there wasn’t a lot going on for this young person. I was reading a Roald Dahl poem and she laughed in an appropriate place. I still remember this moment. I remember it vividly because I suddenly went “She is understanding”. She taught me immensely; she has been my greatest teacher. I went from strength to strength. I learned never to assume. You never know what level of ability is there._

Zara also recalled a similar experience. She had a student in her first class who she thought was not capable of communicating. It took Zara six months to realise that this student was responding to her by closing her eyes and turning her head, and that she
needed to be given approximately two minutes to make a choice. Zara reflected that this realisation raised her awareness about the need to be “sensitive” and “more responsive” to students with MSD.

**Teachers’ Attitudes, Perceptions and Beliefs**

*Perceptions of students’ ability and right to communicate.* Several teachers perceived that underestimating the ability of students with MSD to communicate was a potential obstacle to developing communication with individual students. Sally said:

> It’s our expectations that impact on how we relate to those students. If we have the expectation that there’s not a lot of ability there then that’s where we’re going to pitch our interaction. If you see potential you’re far more encouraged and enthused to look at opportunities for communication programming.

Donna also said:

> Most of those students have receptive language [abilities], even the ones with severe communication problems and multiple disabilities. They still have a degree of receptive communication. You can’t underestimate that, but they just can’t give it back to you, can’t tell you.

Several teachers perceived that respecting students by treating them as worthwhile human beings, who have the right to have their needs and wants met, was a prerequisite for effective communication. Donna also thought that underestimating students’ ability to understand could result in practices that did not respect their rights, dignity and feelings. Sally and her colleagues believed continuing to communicate with students despite the difficulties, contributed to their quality of life.

*Attitudes towards AAC and assistive technology.* Specifically, four teachers commented that their attitudes towards AAC and assistive technology potentially had a negative impact on their communication with individual students. Leanne commented that her doubts about the purpose, usefulness and benefits of AAC resulted in her not using established communication systems with individual students. Penny and Zara also viewed “technophobia” as an obstacle to utilising assistive technology to create opportunities for communication for students. In addition to their own and their students’ characteristics, teachers spoke about the relationship between them.
Relationship with the Student

Most teachers reported that getting to know individual students and building relationships was an important part of the process of managing the difficulty they experienced in communicating with students with MSD. Many teachers noted that one-to-one interaction facilitated successful, effective communication with their students. Donna said: “I found what works the best is taking them on a one-to-one basis, giving them that time”. Teachers believed that there were several ways in which this supported them.

Interpreting Students’ Communicative Behaviours

Teachers reported that building a relationship with individual students was a prerequisite for interpreting their communicative behaviours. Molly said:

> Once you get to know the student you get to know exactly what they want, what their non verbal communication means. Taking the time to get to know what they like to do, how they get their message across and looking for those little signs are the main key of getting communication going.

Donna agreed that: “Those communication behaviours are only meaningful if you have developed a rapport, a relationship and you understand that person”. Molly perceived that teachers can then begin responding to idiosyncratic communication behaviours enabling the student’s communication to develop.

Knowing Students’ Preferred Objects and Activities

Teachers also noted that through building relationships with individual students they got to know the student’s likes, dislikes and preferred activities. Several teachers commented that knowing what motivated students to communicate facilitated meaningful choice-making. Leanne stated: “I think it’s a case of keeping on going until you find something that interests them, that they do want to make choices about. It comes back to building a relationship, to knowing them”.

Donna also perceived that the content of communication systems needed to be specific and meaningful to individual students. She commented:

> We use a picture exchange program with [student]. It’s got to have specific meaning to him for it to be useful. What they want to communicate about are things that are very meaningful to them personally, so its food... if they love going to play outside or an activity that they love.
**Enhancing Students’ Communication Skills**

Teachers believed that building relationships with students and spending time in one-to-one interactions supported them to build on students’ own forms of communication. Leanne described how students in her class could now make choices between objects presented by using eye gaze or touch. Many teachers also talked about the value of one-to-one interactions for building on their students’ existing communicative behaviours by introducing AAC and assistive technology. Molly spoke about how one student in her class could now pick up a symbol for an activity he wanted.

**Resolving Challenging Behaviours**

Several teachers perceived that one-to-one interactions also supported them to effectively manage the challenging behaviours displayed by individual students. Jake observed: “We found that when we were able to communicate closely with her and give her some one-on-one attention, all those problem behaviours were much lower frequency”. He described how one-to-one interaction enabled him to interpret and respond appropriately to the communicative function of his student’s behaviour. Derek suggested that not engaging in one-to-one communication with students could lead to problem behaviours because students’ attempts to communicate a need were “missed” by teachers paying insufficient attention. However, teachers did note that engaging in one-to-one interactions with students required time.

**Time Taken to Build Relationships with Students**

Seven of the 11 teachers perceived that it took a long time to build relationships and learn how to communicate with students with MSD. Polly commented that “it does take a long time to establish the rapport, establish how their communication works”. Jake agreed:

> You can’t make inroads with our kids with MSD unless you put in the time. I’ve got students that it has taken years to break through. When I started I didn’t even know my students could communicate. I was with them for 3 years and then you can make inroads. Now I can say ‘hello’ to them and they will communicate with me. It’s a long term thing; small gains over a long, long term.

Jake and Gary felt that on-going, consistent, relationships built up over a long period of time enabled effective communication to happen with students with MSD. Gary
said: “I’ve built up a knowledge base of how to actually communicate with particular kids because I’m with them for 6 hours a day, often for a couple of years”.

Several teachers commented that having students in their class for more than one year supported the establishment of effective communication. Molly noted:

Four of the students were not new this year so it wasn’t so hard - I already had communication skills. [Learning support officer] had also had quite a few of the students before so it didn’t take us long to work out communication with them.

However, Zara noted that this could create dependence on a relationship with one teacher, and could limit potential communication partners for the student. She talked about a student she had had in her class for 3 years. She said “He can communicate with others to a certain point” beyond which only she and his mother understood him. So Zara thought it would be good for him to have a different teacher the next year so that “he has to find more appropriate ways to communicate” and someone else can learn how to communicate with him.

In addition to the characteristics of individuals, teachers also identified factors in the context that influenced their communicative interactions with their students with MSD. Many of these factors were situated in the classroom and the school context, represented as the two concentric circles most immediately surrounding students and teachers in Figure 4.1. These are now presented in Part 2.

PART 2: INTERACTIONS WITH CONTEXT VARIABLES

All of the teachers commented that their processes of establishing communication with students with MSD interacted with the contexts in which they found themselves having to communicate. Derek commented that “apart from the actual work with the client being challenging, all these other things add to it greatly”. The various factors identified by teachers are presented in sections about the classroom context and the school context, and are summarised in Tables 4.2 and 4.3 respectively.

Class Structure and the Classroom Context

The majority of teachers perceived that there were factors in the context of the classroom that influenced the amount of time students with MSD spent engaged in communicative interactions and other activities.
Table 4.2
Supports and Obstacles in the Classroom Context (Stage 1)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class structure:</td>
<td>Engineering the classroom context for activities and communication</td>
<td>Meeting needs of all students limits time for communication with students.</td>
</tr>
<tr>
<td>students with MSD</td>
<td>opportunities.</td>
<td>Inequities in amount of communication with students.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Timetable with periods restricts opportunities for communication with students.</td>
</tr>
<tr>
<td>Time constraints</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class structure:</td>
<td>Opportunities for interaction with peers.</td>
<td>Academic subjects may exclude students with MSD.</td>
</tr>
<tr>
<td>students with mixed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>abilities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure/Physical</td>
<td>Size of room and organisation of space to accommodate wheelchairs gives</td>
<td>Physical organisation of space can exclude student with MSD from access to activities and opportunities for communication.</td>
</tr>
<tr>
<td>environment</td>
<td>students access to activities and opportunities for communication.</td>
<td></td>
</tr>
</tbody>
</table>

Class Structure: Students All with MSD

Several teachers observed that there were challenges associated with having a class of six students all with MSD. Molly, Donna, Leanne, Sally and Polly found that having to meet the personal care needs and complex communication needs of six students limited: (a) their ability to engage individual students in classroom activities, and (b) the time spent communicating with individual students. Donna stated: “If you’ve got a group of children with severe and multiple disabilities and one aide, it is very difficult to spend time with children on a communication program because there’s so many other issues; the feeding, the changing”. Molly commented that assisting four students with eating and drinking while her learning support officer (LSO)4 assisted the other three students, made it difficult for her to spend time communicating individually with students. She stated: “It is difficult- it does take a while to get around and communicate with all [the students]”. Sally agreed:

Because most of the communication with students tends to need to be on a one-to-one basis, it’s difficult to address all the needs of the students you have in a group because they are so individual in their mode of communication.

4 Although the term teachers’ aide (TA) was used by participants is this study it is replaced in the remainder of this report with the term learning support officer (LSO) to reflect more current use of terminology.
Donna and Polly agreed that the time and effort required for one-to-one communication with students with MSD precluded effective communication in a group situation.

Teachers also spoke about difficulties spending time equitably with students in their class because they observed that some students commanded more of their attention than others. Polly said:

*Where you have the child who just demands attention and you have the child who sits back until you can work with them, the child who’s constantly demanding is going to get the attention no matter how much you try to be fair.*

Teachers observed that students with high activity levels or challenging behaviours demanded much of their attention because of potential safety issues resulting from actions such as grabbing, biting and throwing objects. Jake and Barry both recalled working on communication programs with individual students and being constantly interrupted by having to respond to the challenging behaviours of other students. Barry noted that quite often he “ended up with only 5 or 10 minutes” in the day to communicate individually with a student. Similarly, Zara lamented that “because of the range of behaviours we can’t wait for anything”, making it difficult for her to respond to the student in her class who required 2 minutes to make a choice.

Donna observed that students with MSD: “Can get a bit overlooked especially if they’re passive, and they often are, because you’ve got other children who are more demanding, and they’re not usually very demanding those severe, high support needs students. They’ll just wait”. Penny also said: “When you’ve got autistic kids who are going off and needing attention...the ones who don’t make a fuss are the ones who don’t tend to get as much input”. Polly commented that because all the students in the class had the same level of need teachers were faced with “a balancing act between the students in the class. It’s a balance, constant balance of priorities”.

**Time Constraints**

Polly, Sally, Derek and Barry also identified time constraints, imposed by the requirement to fit into their mainstream high school timetabling structure, as an obstacle compounding those associated with the social grouping of students. These teachers perceived a conflict between the time required to communicate with students with MSD in a class, and meet their needs, and how time was structured in their school context. Barry said:
Of course, our students’ needs are not time-related and some of our kids may actually start to blossom with what you’re doing with them after 20 minutes. Often you’ll find just as you think “I’m really getting somewhere with this person, they’re responding”, the bell goes… so that can be frustrating.

Polly added:

The bell goes, you have to leave, and another teacher comes in. So that’s the end of that interaction. You may have been working for a long time to get a student to start communicating, you get them going and then you have to stop.

Sally and Polly observed that taking a class for single periods left insufficient time to interact with students individually. Polly reported that in one period in a high school timetable, each student received an average of 8 minutes individual interaction with the teacher or LSO for the purposes of meeting all their complex care needs and delivery of mandatory curriculum.

Sally commented that the requirement to meet students’ needs within a rigid time frame had negative consequences for communicative interactions with students. Teachers reported that the pressure to meet all students’ personal care needs within these time constraints limited the opportunities for communication they could offer students. Barry said:

So much of my time during recess to lunch time is just full on feeding and toileting which gives a lot of opportunities for communication with the student but it also gives limitations because you’re governed by how many kids you’re able to feed or assist with their eating programs and then toilet and have everything done by lunch time.

Several teachers noted that their expediency, for example during mealtimes, meant that opportunities for communication were missed. Sally said:

I used to think the eating programs would take forever until I realised they were a wonderful opportunity for communication but we’ve got a limited amount of time to do this in. So we lose opportunities because we’re trying to be expedient and that happens a lot. Our expediency and our needs to work to a timetable are not necessarily in our students’ best interest.

Barry reflected that time pressures can result in staff “objectifying” the students and forgetting to communicate with them. He said:

Communication with kids is one of the main things that we should be working on, but unfortunately a lot of the time it can become a little secondary.
Objectification of kids can be happening. When you’re doing things with students you should really be telling them what’s happening, and letting them become a human being again rather than some sort of sponge that’s receiving something and that’s probably one of the worst things as far as your own self communicating with the kids.

**Communicative Interactions**

As a result of issues related to time, several teachers observed that individual students could be at risk of sitting in the classroom, not engaged in activities or communicative interactions, for periods of time. Barry and Polly noted that it was difficult to occupy the other five students in a class while one student was being engaged in a communicative interaction. Barry said:

> The main problem is always worrying about the down time of kids when they’re sitting there waiting for something to happen. If you’re trying to work one-to-one with a student, what happens to the other student who is sitting there?

Polly concurred: “Yes, students do sit there”.

In contrast to Barry’s observations, other teachers suggested that it was possible to structure the classroom so as to set up activities and create opportunities for students to communicate, as well as to spend more time on individual students’ communication programs. Molly said:

> When [LSO] or myself are working one to one with students, the other students are not just sitting there doing nothing. Everybody is set up with something they’d like to do first. They get a choice of activities and things like that. They’ve each got to communicate to me what they want to do. So there’s communication always going on in the room and they’re all doing something different the majority of the time, so that they’re not just left to their own devices.

Zara commented that because her students’ “primary educational goals were communication goals” the “main purpose of most class activities would be to facilitate communication” and so, like Molly, she required the students to communicate in order to access highly preferred activities.

**Different Class Structures**

These teachers expressed disparate views, however, about the optimal class structure for supporting communication for students with MSD. Donna, for example, viewed a
class containing only students with MSD as limiting opportunities for enhancing students’ communication skills due to the factors discussed above. She talked about one student: “When he came from the school where he was at with all the children requiring feeding and had the same type of disability that he had he was very dependent and under-stimulated”. Donna had a class of students with mixed abilities. She perceived that the advantage of this class structure for students with MSD was that their class peers interacted with them creating more opportunities for communication than a class where all the students had MSD. She said:

I’ve got a range of abilities from mild down to severe, and nine students in the class. It’s definitely a good mix because the ones who have language, who have higher order thinking, will actually play little games and ones with severe intellectual disabilities will be encouraged to come in. These other children are actually stimulating them. It’s like a reverse integration and it is working quite well.

She spoke further about the student mentioned above: “Since he’s come here and been with a cross section, he has actually blossomed and he’s using a communication device that has voice on it with pictures”.

However, Penny reported a different experience. The first student with MSD at her school was put into a class of students with mixed ability, run on a high school timetable, with academic subjects. She observed that no effort was made to include him. The classroom environment was not physically organised to be accessible, as discussed in greater detail in the next section, and so he was excluded from opportunities for communication. When other students with high support needs enrolled at the school, Penny formed a new class:

In the last year, we’ve also had a few higher support students not in wheelchairs, with cerebral palsy, Down syndrome, and autism. So I’ve now got a class of higher support students which is the first time it’s happened. So I’ve taken the little fellow in the wheelchair over to my room totally integrated into my room. We’re not run as an academic class, its more independent living skills, so he fits in beautifully there. So I feel for the first time his needs are being taken care of.

She went on to describe how in this new class there was “more incidental communication” happening and she was able to introduce some AAC to include the student with MSD in class routines such as roll call and news time. She set up a Big
Mack so that he could respond to his name at roll call and also started a
communication book so that he could participate in news giving. Penny talked about
the positive impact that these communication strategies had on the perceptions of the
other students in this class:

*I’ve found it’s just made such an incredible difference because everyone is
now seeing him as one of the class and a boy and not just as a doll, who
doesn’t speak, who’s just there in his wheelchair. It’s just made a completely
different perception so it’s been really, really successful.*

Penny commented that, as a result, the other students were more likely to
communicate with him. She reported that creating this class was better for meeting the
needs, including communication needs, of the student with MSD, and would also
better prepare the school to cater for more students with MSD. Apart from the
structure of the class in terms of students and lessons, the physical organisation of the
space was an important factor discussed by these teachers.

**The Classroom Infrastructure and Organisation of Physical Space**

Donna and Penny described the physical environment of the classroom as a “very
important” factor. Penny described how her student with MSD was excluded from
opportunities for interaction: “He was lying on the floor actually at the back of the
class where people had to step over him”. She perceived that there was not an
appropriate physical space that enabled him to participate in classroom activities. She
said of the first two students with MSD at her support unit: “There really was
absolutely nowhere where these kids fitted in, where they were being integrated
properly. I mean to me they were in a room but it was so inappropriate”. Donna and
Penny also noted that the lack of an appropriate space for meeting the other complex
personal care needs of these students was an obstacle to promoting a positive
perception of them among the other students. Penny stated that when there was a
physical space organised to meet students’ other needs, the classroom could then be
made more conducive to developing communication.

Penny claimed that moving her student with MSD to a bigger room was “the
most fantastic thing we’ve done”. According to Penny, it meant that the student with
MSD, who used a wheelchair, could comfortably be involved in all the activities in
the classroom and be in physical proximity to his peers, thereby immediately giving
him access to opportunities for communicative interaction. She said:
I’m very much happier with the situation now. We’re really trying with that incidental communication and I think that’s working quite well. His wheelchair is always next to the other kids whereas before his chair was at the back of the room and they just weren’t mixed at all. It was very sad.

Donna also talked about the need for the physical environment of the class room to be organised so that it was conducive to working one-to-one with students when introducing assistive technology. She noted obstacles “if you haven’t got an area outside your classroom” or “a partition where they can work away from the distraction from other students”. The two different class structures advocated by Donna and Penny, above, were in different school settings. Teachers perceived that there were other influences, in the broader school context, on the functioning of their classrooms, and the communicative interactions that occurred within them. These are presented in the section below.

The School Context: “Isolation” Versus “Sense of Community”

**Contrasting School Settings**

In describing the supports and obstacles to communication inherent in their school contexts, teachers reported varying experiences based on the type of educational setting in which they worked. The perceptions and experiences of the teachers working in support units (SUs) about the influence of the school context on their communicative interactions with students with MSD appeared different to those of teachers who worked in special schools (SSPs). The contrast was introduced by several teachers who had worked in both settings. Penny described the absence of a number of factors in the SU, as compared to SSPs, as a form of “discrimination”, to which she further suggested that there was a geographical element. She said:

_I think the actual school situation makes it really hard. I’ve been in special ed. for over 20 years now, starting in a residential setting with the most severe students then going onto a special school and then ending up as I am now in a support unit, and its amazing to me the differences in the services that are provided. I found this huge discrimination from being in the city to the country. I find that the support unit setting is very short of resources, training, networking, and it’s just been really difficult._
<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contrasting school settings</td>
<td>Special schools well equipped.</td>
<td>Support units in mainstream schools ill-equipped.</td>
</tr>
<tr>
<td>School culture</td>
<td>Whole school focus on communication.</td>
<td>Lack of understanding about the communication and other needs of students with MSD.</td>
</tr>
<tr>
<td>Integration of students with MSD</td>
<td>Creates opportunities for communication with peers without disabilities.</td>
<td>Minimal integration restricts communication opportunities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insufficient staff to support integration.</td>
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<tr>
<td></td>
<td></td>
<td>Perception that mainstream settings do not cater for the needs of students with MSD.</td>
</tr>
<tr>
<td>The principal</td>
<td>Generating and/or making funding available for additional staffing and resources.</td>
<td>Not making funding available for resources.</td>
</tr>
<tr>
<td>Funding</td>
<td>School generates funding through community.</td>
<td>Difficulty obtaining funding.</td>
</tr>
<tr>
<td></td>
<td>Adequate funding for communication resources.</td>
<td>Insufficient funding contributes to under-resourcing.</td>
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<tr>
<td></td>
<td></td>
<td>Limited allocation in mainstream school budget for resources.</td>
</tr>
<tr>
<td>Resources</td>
<td>Ample computers.</td>
<td>Lack of computers.</td>
</tr>
<tr>
<td></td>
<td>Play equipment.</td>
<td>Old and incompatible computers.</td>
</tr>
<tr>
<td></td>
<td>Digital cameras, AAC-related software.</td>
<td>School executive’s limited understanding of application of assistive technology for needs of students with MSD.</td>
</tr>
<tr>
<td></td>
<td>School-wide AAC resources for augmenting routine activities and KLAs.</td>
<td>Time required for developing assistive technology programs and AAC resources.</td>
</tr>
<tr>
<td></td>
<td>Interactive computer programs for engaging students.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low tech. AAC systems.</td>
<td></td>
</tr>
<tr>
<td>Staffing</td>
<td>Adequate staff to student ratio of 1:2 (students with MSD).</td>
<td>Insufficient staff to student ratio (2:6).</td>
</tr>
<tr>
<td></td>
<td>N.B. Donna had a ratio of 1:3 in a mixed ability class.</td>
<td>Lack of experience and expertise among staff.</td>
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<tr>
<td></td>
<td></td>
<td>Changes of staff throughout the day.</td>
</tr>
<tr>
<td>Collegiality among teachers in the same school.</td>
<td>“A sense of community”.</td>
<td>“Isolation”.</td>
</tr>
<tr>
<td></td>
<td>Formal and informal opportunities to share knowledge and resources.</td>
<td>Limited opportunities for teachers to meet.</td>
</tr>
<tr>
<td>Learning Support Officers (LSOs)</td>
<td>Support teachers to enhance opportunities for communication.</td>
<td>Individual LSOs who do not adopt communication practices.</td>
</tr>
<tr>
<td>Inappropriate practices</td>
<td></td>
<td>Lack of communication during mealtimes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ignoring challenging behaviours.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-functional communication activities.</td>
</tr>
</tbody>
</table>
Table 4.3 continued

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes of other staff.</td>
<td>Believing that students with MSD have the right and ability to communicate.</td>
<td>Believing students with MSD do not have the right or ability to communicate.</td>
</tr>
<tr>
<td>Change: teachers’ responses to the context.</td>
<td>Making changes to the physical environment to make it more conducive for communication.</td>
<td>Making changes to practices of other staff is difficult. Making changes can take years.</td>
</tr>
</tbody>
</table>

Polly agreed that SUs did not have the same facilities as SSPs but are still expected to implement the same programs. Her comments suggested inequality in access to activities that could form a context for communication. She said:

_They’re the big problems that we encounter is that we are not as well staffed or we don’t have the same facilities but we’re supposed to implement the same programs. I think if we had equal staffing and equal facilities as a special school has we would be in a better position to implement the programs._

Several teachers perceived their mainstream school setting as having a negative impact on communication intervention with students with MSD. Some teachers used the word “culture” (Penny, Leanne, Gary, Jake) when describing their overall perception of whether or not their particular school supported access to communication for students with MSD.

**School Culture**

Teachers reported varying experiences; from a whole school focus on communication, to a perceived lack of preparation and understanding about the communication, and other needs of students with MSD.

*Whole school focus on communication.* Teachers commented that one of the main advantages of their special school setting was the whole school focus and priority on communication. As Leanne commented “[communication] is just a constant focus in the school and with all our kids”. Molly also commented that:

*It’s not just through the teacher and the teachers’ aide in the room. When other people come into the room they always talk to the students and the majority of the time they all respond. The children are well known in the school so they all do respond to other staff and other people.*

Leanne and Zara described the existence of a formal mechanism, the “Communication Committee”, made up of staff with skills and expertise in different areas, including assistive technology. She described the Committee as “quite active and if there’s a
need it would be met pretty well”. The role of the committee in producing school-wide communication resources is described in the section about resources below.

**Mainstream lack of understanding.** In contrast, other teachers did not experience their school context as supportive of setting up activities and creating opportunities for students to communicate. Sally, for example, expressed “frustration” at aspects of her SU context. Penny reported that the school executive’s lack of understanding about the needs of students with MSD was one of her main obstacles to establishing communicative interactions. She said: “I think this is one of the biggest issues. The mainstream does not understand support needs or special educational needs and to be honest don’t really want to know”.

It was not only teachers in SUs who had this perception. Molly, who worked in a SSP, commented that teachers working in SUs were less likely to receive support, from within the whole school context, for enhancing students’ access to communication. She said:

\[
\text{In a unit situation in a school, unless you’ve got the right supervisor who’ll go to bat for what you want, you don’t actually get the support of the school community, of the school staff, because they don’t know where you’re coming from. So that makes it very difficult.}
\]

According to Molly, having staff who were all teaching students with disabilities made it much more likely that there would be whole school supports for enhancing access to communication for students.

Penny reported that her school lacked preparation to cater for the needs of students with MSD. When she arrived at the SU, there was one student with MSD who had been there for only 6 months:

\[
\text{I just couldn’t believe how little was actually done for him. There were no resources at all…..nothing. Nobody knew what to do with him, they had no equipment. He was just stuck at the back of an academically-run class where they were sitting at desks with textbooks and he was lying on the floor at the back. It just quite blew me away actually and then to have him being fed from behind with no conversation, with food stuffed down his throat. It was really bad.}
\]

Teachers in support units identified a number of interacting factors that presented obstacles to communication opportunities for students with MSD. These included minimal integration, limited support from the principal, inadequate funding and
resourcing, insufficient staffing, lack of appropriate communication education for staff, and limited opportunities for staff to meet.

Integration
Teachers working in different school settings talked about integration of students with MSD into mainstream activities. Teachers in SUs perceived potential benefits for students with MSD from opportunities for interaction with peers without disabilities. Teachers in SSPs, however, felt that integrated settings did not cater for the needs of students with MSD.

Potential opportunities for interaction. Several teachers expressed the view that students with MSD had the right to enjoy opportunities for communicative interaction with peers without disabilities. Jake talked about a particular student:

She will respond to her peers from the mainstream in a vibrant manner and they are also happy to see her and respond to her. It’s wonderful to see vibrant communication going on between a mainstream student and a student who has a severe intellectual disability and uses a wheelchair. Once we know how they communicate we should be able to give them the right to go into that mainstream arena.

Minimal integration. Jake perceived that there was, however, minimal integration of students with MSD. He said:

It seems to me that the reason for creating a support unit is so that those kids can mix with the mainstream kids, but this does not happen. The two can end up being quite separate from each other. We’re physically in the same grounds [but] it’s a minimum amount of cross fertilization between the support unit and the mainstream kids.

He commented that this situation was due to lack of funding for additional staff to support students with MSD in mainstream classes, and in the playground. He noted:

If you want a system where kids with high support needs can go into mainstream classes, they have to be supported. That means we need a lot more TAs on the ground to be able to take the kids into the mainstream building and that is the only way it will ever happen.

Polly also stated: “Students do encounter problems that impact on the mainstream classroom. If they’re having a bad day, not feeling well you can’t have them crying up in a mainstream class”. Polly felt that students with MSD were excluded from mainstream class activities, and as the syllabus of mainstream classes becomes more
difficult, mainstream teachers were less willing to take students with MSD because of perceived increases on their workload. Jake suggested that: “Teachers on their own are not enough for these kids”, and that minimal integration was an obstacle to enhancing communication opportunities for students with MSD.

Words: Perceptions of integrated settings: Regardless of whether integration was occurring, other teachers perceived that SUs and mainstream settings did not cater for the needs of students with MSD and that the students therefore needed to be in SSPs. Molly expressed this view about students at her SSP: “The children who are here need to be here because they wouldn’t survive, the mainstream doesn’t cater for their needs. A lot of these children have come from unit-type situations that they have failed in”. Another teacher perceived a trend over the last decade away from integration to segregated education. He speculated that parental choices to send children with MSD to SSPs instead of SUs was being influenced by poor prospects for social inclusion after leaving school, an issue discussed further in Part 5 of this chapter.

Words: The Role of the Principal

Teachers had different perceptions about whether their principal supported or hindered their communication work with students with MSD. Penny described the principal in her previous school as having been “passionate” and “committed”. She reported that he sought funding for technology from community organisations ensuring that they had adequate resources. Teachers in SSPs perceived their principals as being involved and supportive. Donna found that her principal had made funding available, upon her request, for increased staffing. She recalled:

I said to our principal: “With nine in that room I’ve got to have someone else in there for the life skills in the middle of the day”, and that was fine. Then I said to him: “With the little girl who’s got the severe hearing loss and severe intellectual disability, we’ve got to have an hour a day beside the hearing support teacher because she’s going to get nothing in the group”, and he said “OK we’ll have to find the money for it”, which he has done.

Molly and Leanne reported that the principal at their school had been active in raising funds for the school. Leanne commented that he “has raised the level of awareness” in the community about the needs of the students at the school which has “brought more money into the school and that gives you better resources”. Molly agreed that the networking and contacts that the principal actively pursued, for example with the
local media, helped the school to raise a lot of their own funds for assistive technology and other resources.

However, teachers in SUs perceived that their principals were much less involved or supportive. Penny perceived her principal as unsympathetic to her concerns that resource allocations - staffing ratios and assistive technology - were inadequate for meeting the needs of new students with MSD. She described her efforts to get more support from the mainstream part of the school as “crying in the wilderness, it’s just really hard”. Funding and Resources are discussed in greater detail in the next section, followed by Staffing.

**Funding and Resources**

Teachers perceived that the availability of funding was closely related to the availability of resources at their school. The majority of teachers discussed the impact of resources on their communication work with students.

**Insufficient funding and resourcing.** Teachers in SUs talked about being very under-resourced due to insufficient funding, which presented obstacles to their communication programming for students with MSD. Jake said: “We do not have the resources that an SSP has. The place runs on a shoestring budget”. Penny agreed: “The support unit setting is very short of resources. There could be so much done which doesn’t happen because of lack of resources”. She stated that “it has been a really hard battle” to obtain funding. Penny reported encountering obstacles at the school administration level. She talked about funding that she had managed to obtain not being passed on from the executive/administration at the school: “We didn’t realise that the funding had been there, it had been in the office apparently for a couple of years and I thought that it hadn’t been approved”.

**Sufficient funding and ample resources.** In contrast to the teachers in SUs, teachers in SSPs spoke about funding as “good” (Donna), and described being well resourced. Donna said: “We’ve got computers laid on, we’re not lacking”. Leanne talked about how her SSP was constantly obtaining resources and these were used to create opportunities for students to communicate. She described Liberty Swings and trampolines as “fantastic for communication” because the students were motivated to communicate “more”, for example. Leanne also commented that the executive had recently purchased digital cameras for every classroom and AAC related software. According to Molly, this was due to the school raising a lot of its own funds for resources through the local media, and local organisations and businesses allocating
funds and donating equipment to the school. Molly noted that in contrast: “A lot of
other places don’t get that local media out there…support units don’t and that’s
where they fall down getting resources”.

Assistive technology. Computers were a focus of teachers’ discussion about
lack of resources in SUs. Penny talked about how when she first arrived at the school,
there was “one broken computer in the whole unit…absolutely nothing”. Penny
experienced difficulty, not only with the procurement, but also the application, of
assistive technology. She reported encountering obstacles from the executive about
how she wanted to use the computers with her student, being “chastised” because they
operated as stand-alone and were not networked into the school system. She
lamented:

I just wanted someone to be able to press a head switch and get a cause and
effect, because this was what was done in the special school. It wasn’t a luxury
item, it was an integral part of what we were doing everyday, and I still can’t
get this message across. I just cannot.

Barry believed that computers were allocated to SSPs first, and SUs, in
contrast, were forced to tap into the mainstream school budget. As a result, his SU had
old and incompatible computers which created obstacles to setting up communication
programs for individual students. He said:

Incompatibility of technology is the main issue I’m working with at the
moment. Unfortunately the Intellikeys is also part of the problems. We have
new and old Macs, and its “never the twain shall meet”, from the year 2000
and the USB ones don’t go very well with the old floppy disk ones and
something will work on one but won’t work on another. That’s frustrating.

Barry perceived that, despite his high level of expertise in this area, the
incompatibility of technology presented an obstacle to creating opportunities for
communication for his students. In contrast to Barry’s high level of skill, when Penny
did finally obtain two computers, she realised that there was lack of skills in their use
among the staff at her SU.

Resources for augmenting activities. In contrast, Leanne and Zara talked not
only about having ample computers but also a pool of school-wide low technology
AAC resources. Leanne reported that when new equipment, such as the swings and
trampolines, were purchased, the “Communication Committee” would create
accompanying AAC resources “making it easier” (Leanne) for all staff to

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communicate with students about their use. Zara also reported that the committee coordinated the development of school-wide communication resources for classroom routines and activities, such as “morning circle”, as well as Key Learning Areas (KLAs). These were then stored as packages in the library and on the school intranet forming a common pool of resources for teachers to draw on. Leanne said:

We’re doing KLA areas so the communication committee went: “OK this is coming up, what resources can we get?” So they’re already there and then as the resources are created, as you go through they’re added [to] so next time it comes up there’s more stuff there so … I really can’t fault it…

Leanne concluded that, as a result of staff pooling their different skills and strengths, individual teachers did not have to be proficient at making, or purchasing, all their own resources. Leanne commented: “It’s really not everybody is good at everything, but together it pretty well covers the lot and you kind of get to know who the resource people are for different resources and they’re just so very helpful”.

The potential benefits of AAC and assistive technology. Regardless of their level of resourcing, several teachers observed that AAC and assistive technology supported the communication opportunities of students with MSD. Barry perceived that assistive technology could support solutions to the amount of time students spent not engaged in communicative interactions. Barry talked about attempting to develop interactive computer programs for students to use while the teacher was working with another student. He reported that he was developing PowerPoint presentations with photos, designed for specific students and operated by switch that could enable these students to learn basic AAC skills. He commented: “Hopefully rather than having a student with down time while you’re working with another one, they can at least be focusing on that”. Molly also reported using switches in the classroom for indicating ‘more’, ‘help’ and to enable students to tell jokes.

Other teachers perceived that low technology systems were also supportive. Molly thought that low technology systems such as symbols were more useful than high technology systems because of portability and also because the students could show a symbol for what they wanted, and others could immediately recognise what it was. Zara spoke about the usefulness of having pictures, Picture Communication Symbols (PCS) (Mayer-Johnson Inc, 1981-2003) and photos in place to support communication with students in the classroom. She perceived, however, that
difficulties with vocabulary selection for systems could result in actually limiting spontaneous communication, as she stated:

*It’s really limited to what supports you can put in place so there’s not much spontaneous communication. It’s limited to what the teacher thinks is appropriate for the student to be communicating about but that might not be what’s important for those particular kids.*

**Time required for developing AAC resources.** However, Zara and Barry identified the amount of time required to develop communication resources as an obstacle to creating opportunities for students to communicate. Zara talked about the time required to make her own low-technology AAC resources for the classroom, used to engineer opportunities for communication throughout the school day. Barry found that time he allocated for developing assistive technology for individual students was consumed by the problems he described earlier with old and incompatible computers.

**Staffing**

Ten of the 11 teachers in this study also talked about staffing, both where it posed obstacles and where it was supportive of communicative interactions with students with MSD. Obstacles included: (a) insufficient staff numbers, (b) lack of experience and expertise of staff, and (c) changes of staff. Conversely adequate staffing was identified as supportive.

**Insufficient staff.** Many teachers perceived insufficient staffing as an obstacle. Leanne noted that with a ratio of two staff to six students with MSD “you get through the day and the basics are done”. However, Barry, Polly, Leanne and Donna perceived that this ratio was insufficient to engage individual students in communicative interactions throughout the day. Donna stated:

*The most important thing I think is the staffing. You’ve got to have that staff ratio to do the job properly. If you’ve got a group of six children with severe and multiple disabilities, and one aide, it is very difficult.*

As Barry pointed out, meeting some personal care needs, for example, using a hoist to lift a student, required two staff per student. As a result, these teachers perceived that they could not engage in communicative interactions with individual students if there were not additional staff in the classroom. Gary added that additional staffing was very difficult to obtain, even though it could improve a student’s quality of life: “*If I had one extra aide for one term to do one extra thing like work on one communication*
program that’s life changing potentially, but it’s always kneeling”. Polly added: “There are not enough people in the education system to implement it [communication intervention]”.

Insufficient staffing was also perceived as an obstacle to other factors, such as integration and community access that could offer communication opportunities for students. Gary also saw it as an obstacle to teachers being allocated time to collaborate with other teachers and with speech-language pathologists (SLPs) about students’ communication programs. Collegiality is discussed in a later section of this part. Collaboration with SLPs is discussed in Part 4 and Community Access in Part 5.

Adequate staffing. Five teachers commented that increasing the staff to student ratio from 1:3 to 1:2 had a positive impact on students’ communication skills because it: (a) enhanced activities and opportunities for one-to-one communication in the classroom, (b) enabled communication programs to be implemented, and (c) enabled community access to happen. As mentioned above, Donna managed to obtain two learning support officers (LSOs) in her classroom to meet the complex personal care needs of students with MSD, such as eating and drinking and toileting. This meant that she could focus on establishing communication. She said:

I’m very fortunate I have another lady who comes in for that two hour period in the middle of the day. So I’m not just there helping the teacher’s aide feeding. I can work with the other children. Staff ratio is important. When I’m in there now I’m working with two teachers’ aides and myself. So that’s a very, very good ratio and I have noticed a big improvement in their communication skills.

Donna reported seeing improvement in students’ communication skills as a result of her being freed to interact one-to-one with them and focus on implementing communication programs. Gary had a similar experience when he received additional LSO time.

Zara, Polly, and Gary commented that there were other ways in which additional staffing would support them to enhance students’ opportunities for communication. These included: (a) developing AAC resources, (b) implementing communication programs developed by a SLP, and (c) releasing teachers to collaborate.

Lack of experience and expertise. In addition to insufficient staffing, Penny perceived that the lack of experience and expertise of other staff at her SU was a
further obstacle to communication access for their students with MSD. She found that she was the only teacher on the staff with any experience working with students with MSD. As she stated:

The staff were all new. Nobody had any background in special ed. There were no teachers on staff who’d ever had anything to do with students with severe disabilities. I don’t think there’d ever seen anybody like this student there before and nobody really knew how to handle it.

This raised concerns for her regarding what would happen after her impending retirement, particularly in relation to other staff developing expertise: “I’m the only one with any expertise at all in that area and it is a worry because I don’t know how anybody else is going to get that and I’ve only got 3 years till I retire”. Zara also expressed concern about loss of experience and expertise if staff leave:

If we had a bunch of staff leave, all the skills would go with them and we don’t have systems in place that ensure those communication skills get passed on. I guess there would have to be a whole lot of retraining.

Changes of staff. Derek, Polly and Sally also talked about changes of teachers throughout the day in their school setting. Polly and Sally agreed with Derek that having different teachers working with students was “a two-edged sword” because, while it exposed students to many potential communication partners, it also made it difficult to maintain a consistent approach to communicating with students. They claimed that inconsistent staffing had a negative impact on students’ opportunities for communication. Sally commented: “We lose the continuity we need in order to effectively encourage our students’ communication”. Derek added: “In a high school particularly, having consistent teachers, consistently doing the same communication the same way is difficult”. Polly and Sally reported that mainstream teachers were also involved in teaching some support classes and perceived that their lack of knowledge and experience meant they did not create communication opportunities for students during their lessons.

Collegiality: Working With Other Teachers in the School Setting

As with their experiences of staffing, teachers had different experiences of collegiality in different school contexts. Some teachers experienced “isolation” (Jake), while others reported a “sense of community” (Leanne) or a supportive school culture.

“Isolation”. Teachers in SUs reported insufficient communication between staff about students’ idiosyncratic forms of communication and about their individual
communication programs. Penny stated: “There’s just no opportunity to talk to other people and pick up ideas, even within our own staff. There’s no opportunity to even informally in-service your own staff on what is happening, what could be happening”. Unlike Penny’s situation, Jake stated that the staff at his SU had the experience and expertise to be able to support each other, however: “We have a lot of very experienced teachers who, if we had time to meet and talk about these kids, a lot of specialist [communication] work could be done but when you’re in that system there is no time”. Derek agreed: “The team is here in a lot of ways but we’re all on our own, we’re not getting the time to get together enough”.

According to Derek, Jake and Barry obstacles associated with changes in staff throughout the day were compounded by the lack of time for these teachers to meet. Derek added that the lack of information sharing when students changed classes also contributed to breakdown in the consistency and continuity of individual students’ communication programs. He said:

*We’ve started some really good communication systems with people and have them doing good things and there’d be a change of teacher from year to year, or different people will come in at different times of the day. It’s really hard to keep focus on that communication, consistent communication in this setting.*

Derek recalled that when a specific student in his class changed teachers, the switches and auditory cues for activities, and opportunities to communicate in the bathroom previously employed were no longer used. Jake also stated that a lack of “*cross-fertilization*” with mainstream staff presented another obstacle to students with MSD accessing potential opportunities for communication with peers in the mainstream. Gary, at the high school end of his SSP, also reported limited opportunities for meeting with other teachers and so shared some of the frustrations of colleagues in SUs.

A “*sense of community*”. In contrast, other teachers in SSPs reported informal and formal opportunities for collegiality. Leanne stated:

*A person coming in to this school would have the meetings to go to, would have people, their supervisor or other people in the school. They would have people close on hand to help with how to use communication programs.*

Molly, Leanne and Zara commented that staff at their school not only had a high level of experience and expertise but also helped each other by: (a) sharing their knowledge about resources and how individual students communicated, (b) problem-solving, and
(c) providing individual education plans (IEPs), written communication programs and communication systems when students changed classes.

Leanne stated that in the early part of her career working with students with MSD, she experienced a great deal of support from other teachers at the school to begin communicating with individual students and use their communication systems with them. She recalled that other teachers would comment to her if a student in her class did not appear to be using his/her communication system, and enquire whether she needed some assistance. Leanne commented that this informal support from other teachers was ongoing. She described a sense among teachers that they all had responsibility for the communication needs of all students. As a result she said, “You’re not isolated, it’s a community feel, it’s a community focus”.

The benefits of teachers communicating with each other. These teachers perceived that sharing knowledge and resources supported them to: (a) learn how to communicate with individual students, (b) learn how to use AAC to create opportunities for communication, (c) meet the communication needs of individual students as they arose, and (d) develop and implement quality communication programs. Leanne gave an example of how consulting with other teachers enabled successful communication to occur with a new student in her classroom. When Leanne initially gave the student choices, she could not understand why the student became frustrated when subsequently given the object that she had touched. Other teachers observed that the student was actually pushing away the object that she did not want, and so the object left on the table was her choice. Leanne had incorrectly interpreted the student’s behaviour, however following this consultation choice-making became more successful for this student.

Leanne also commented that collegiality meant she did not have to “reinvent the wheel each year” and there was continuity in students’ communication programs. This situation contrasted sharply with the teachers in SUs who perceived that they had to do everything on their own. In addition to the importance of collegiality with other teachers, teachers also talked about learning support officers (LSOs).

Learning Support Officers (LSOs)
Most teachers perceived LSOs as working with and supporting them to enhance communication opportunities for students with MSD. Gary and Barry described working with LSOs as a valuable “partnership”. They talked about LSOs who had much experience and knowledge about individual students, enabling them to share
with the teacher detailed information about a student’s general state of being on any given day. Teachers reported that this assisted with interpreting students’ potentially communicative behaviours. They also commented that many LSOs had built up extensive knowledge of how to communicate with individual students and communicated effectively with them. A few teachers (Gary, Jake and Polly) spoke about LSOs who worked with SLPs and learned to conduct communication programs with individual students. Jake said:

*The team from [government department], trained up the TAs to run these very impressive programs where the kids would actually then be communicating with the staff and the staff are learning how to communicate with the kids.*

Penny, however, had variable experiences of working with LSOs. She described an individual LSO who “took charge” of the student with MSD and resisted Penny’s attempts to introduce practices that would enhance the student’s communication opportunities. Penny stated:

*This teachers’ aide took total possession of this little boy and was very resentful of anybody else having any other input. A bit of sabotage was going on...where we were trying to encourage choice, trying to encourage communication, it wasn’t looked upon very kindly by her and it would revert back. So this was just one of the problems which I think hinders.*

Penny reported that when she was not there supervising, this LSO would revert back to feeding the student with MSD without communicating with him. This particular LSO’s practises are discussed further in the next section.

**Inappropriate practices**

Penny, Jake, Donna and Gary, spoke about practices in their school contexts that they felt were inappropriate. Penny described the way the LSO was assisting the student with eating:

*The thing that concerned me the most was his eating program which to me incorporated a huge amount of communication. When I arrived he was being fed from behind with this teachers aide standing behind having no contact whatsoever forcing the food down his throat. He would gag but [there was] no concern whatever for his feelings, his choices. So it was actually quite distressing to see, because it was very uncomfortable for him. I was also concerned about the pneumonia side of things.*
Penny perceived this practice as inappropriate not only because it was unsafe mealtime management, but also because it denied the student opportunities to communicate. Donna also described a student’s eating and drinking program designed to increase independence at mealtimes but which disregarded his attempts to communicate refusal. She talked about how her own practices had changed and reflected that: “Really looking back now, they were things we shouldn’t have been doing”.

Disregard for potential communicative attempts was also witnessed in relation to students’ challenging behaviours. Jake referred to the student in his class who would scream in different situations. He observed staff responding by wearing ear muffs when near her. It concerned him that those teachers were not trying to interpret the potential communicative function of that behaviour and that: “People weren’t necessarily communicating that efficiently with those kids when I first arrived there. Possibly their needs might not have been met as well as they could have been”.

Finally, Gary commented that structured teaching of communication skills (for example, requiring students to match real objects with corresponding pictures of the objects) was a non-functional strategy still influencing some teachers’ practices today. He commented that this strategy could result in non-compliance and challenging behaviours even from students with MSD. He concluded: “There’s been way too much of that culture in special education with students with severe disabilities”. Teachers spoke about the perceived attitudes of other staff, potentially underlying such practices.

**Attitudes, Perceptions and Beliefs of Other Staff**

Penny found that the lack of experience, knowledge and skills of staff at her SU, were accompanied by an attitude of indifference or lack of interest in learning how to communicate with the student with MSD. To Penny, her LSO’s mealtime practice reflected an attitude that the student did not have a right to communicate a preference, or to refuse to eat something. Penny perceived this was an obstacle to creating opportunities for communication during the student’s mealtimes, and she contrasted this attitude with her own: “The first lady [LSO] was concerned because she thought he was getting too thin and he wasn’t eating everything. Whereas I was taking the tack that he had the right to refuse to eat if he clamps”.

Penny interpreted this “clamping” behaviour as communicative because the student would only use it with this particular LSO and not with her or the other LSO...
who was brought in to work with him. Penny perceived that the second LSO had an attitude that the student did have a right to be communicated with and given opportunities to respond. This second LSO was: “Trying to encourage choice, trying to encourage communication by squeezing his hand when the spoon was about to go in the mouth and give a verbal command “open your mouth”, which worked beautifully”. When Penny found and disseminated a video showing good communication practices during mealtimes, she observed that the first LSO did not watch it:

I found a video the Department put out that was spot on in terms of sitting opposite the student front on, quality time talking to the student. I passed it around for everyone to watch and of course the only person who didn’t watch it was the person I was aiming at.

Penny perceived that the LSO’s attitude towards the students’ right, or ability, to communicate was also an obstacle to openness to new ideas and practices. However, Penny did not blame individual staff members for their lack of “awareness” of enabling “philosophies”. Instead, she perceived that this was due to lack of exposure to an enabling discourse in the school context. She said: “There was no cultural awareness of that bigger picture, like this is a quality time with lots of communication opportunities. All those philosophies, which people aren’t aware of if they haven’t been exposed to it”.

Penny also noted that a staff member’s perception of a student’s ability to communicate influenced whether this person would attempt to communicate with the student. When Penny went to the local primary school to transition the second student with MSD, she found that his LSO did not believe he was capable of communicating because of his physical disability. As Penny described:

Before he came up, I went down to the primary school a few times. He had a teachers’ aide who emphatically said “Oh no, he wouldn’t be able to communicate because he couldn’t move anything” and I said “Well he can move his head so he should be able to”. He has slight head rotation, that’s all, but he can use a head switch. It’s working quite well.

Penny reported that the perception or belief that this student was not capable of communicating resulted in nothing being done to facilitate his ability to participate in communication until he arrived at the high school. Penny’s responses to the practices and perceived attitudes of others are discussed in the next section.
**Change: Teachers’ Responses to the Context**

Teachers responded differently to the contexts in which they found themselves trying to communicate with their students. Some teachers appeared to perceive that there was little they could do to influence the obstacles in their SU. Derek said: “That’s just the way it is”, “That’s just the reality of it”. Similarly Jake expressed a sense of powerlessness when he said: “There’s no use complaining because that isn’t going to change anything”.

Other teachers reported attempting to make changes in their school context. Penny and Barry noted that it was difficult as individuals to bring about changes to facilitate communication for individual students. Penny noted that nothing had changed in her school situation when a second student with MSD arrived two years after the first student. She described attempting to make changes as a “battle” and “campaign” that met with a lot of “opposition” and “resistance” from other staff members: “I tried to introduce some changes but it was very hard. You come with such great intentions, I said vision, really want to change so much but it is just so hard to do when things are so entrenched”. She also perceived that in an atmosphere of chronic under-staffing and lack of resources and equipment: “We’ve been treading water for so long [that] good intentions [go] on the back burner”.

Penny attempted to change the mealtime practices, described above, by letting the student know what was happening, giving him choices and responding to his attempts at refusal. Despite enlisting support from a SLP, to verify her program and demonstrate to the staff how it should be done, the program was “sabotaged” by the first LSO. Eventually this student died from aspiration pneumonia.

Penny also reported that she “campaigned” for two years to bring about the changes in the physical environment of the classroom, previously described. When the room allocated for her new class of students with high support needs was too small she “campaigned to get a bigger room” where there was adequate space for the student’s wheelchair. Penny found that after 4 years she was able to bring about some changes that enabled communication to occur in the classroom. She commented: “We’re sort of chipping away. I really campaigned quite a bit for 2 years and in that time we managed to get a bit more formal communication. I feel now we have a much better system”.


Gradual Change in a Supportive School Context

In contrast to Penny, Donna perceived that changes occurred gradually over many more years at her SSP to create a supportive context for communicating with individual students. She perceived that making changes was not difficult because she received support in the school context. Donna reported that initially she was in a classroom with six students with MSD and no LSO, and there were very few activities and communicative interactions occurring. Donna talked about how her attitudes towards students with MSD changed, which led to changes in practices. She recalled specific outside influences: “I saw a movie many years ago called ‘Annie’s Coming Out’ and I felt I could relate to that. That was an awakening for me”. Over the years, Donna was able to bring about staff enhancements with the support of her principal, as described above. Further changes in practices occurred as a consequence of Donna accessing communication education and receiving more support from SLPs in recent years.

Communication education and the role of other professionals were also discussed by the other teachers. Following on from discussions about the school culture and factors such as collegiality, some teachers reported that their communication education needs were largely met within their school. Those teachers for whom this was not the case made different comments about their professional development needs, how and to what extent these were met. The varying experiences of teachers regarding communication education are now presented in Part 3.

PART 3: COMMUNICATION EDUCATION FOR TEACHERS

Teachers reported their perceptions and experiences of the role of professional development in supporting them to communicate with students with MSD. There were nine features of communication education perceived to present supports or obstacles to teachers’ enhancing communication with their students. These were: (a) pre-service training, (b) continuing education, (c) the model of external courses, (d) meeting identified training needs, (e) teachers’ attitudes, (f) the school culture, (g) working with others, (h) mentoring, and (i) exchanges.

Teachers in SUs spoke about lack of communication education. In contrast teachers in SSPs chose not to attend workshops and found that they could meet their needs for communication education in other ways. These supports and obstacles are summarised in Table 4.4. Communication Education is represented in Figure 4.1 as a
bar crossing a number of levels from the School Context to Government Departments. Interactions with factors at different levels are described in this and the next two parts of the chapter.

Table 4.4  
*Supports and Obstacles Associated with Communication Education (Stage 1)*

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service training</td>
<td>Content about communication and AAC. Practical experience with students. Supervising teachers who model communication practices.</td>
<td>Lack of content regarding functional communication. Limited practical experience.</td>
</tr>
<tr>
<td>Continuing education</td>
<td></td>
<td>Limited availability of continuing education for communication.</td>
</tr>
<tr>
<td>Model of external courses</td>
<td>Useful courses are: (a) specific and aimed at particular students, needs; and (b) have practical tasks in between series of sessions</td>
<td>Too general for heterogeneous group of students. Too basic for staff with high level of expertise. Impractical or difficult to apply when back at school.</td>
</tr>
<tr>
<td>Identified training needs</td>
<td></td>
<td>Inability to meet specific training needs, such as operation of assistive technology.</td>
</tr>
<tr>
<td>Teachers’ attitudes</td>
<td></td>
<td>Negative attitudes interfere with adopting innovation.</td>
</tr>
<tr>
<td>School culture</td>
<td>Collegiality among staff with a high level of experience and expertise. Regular professional development for application of assistive technologies.</td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
<td>Supports early career or inexperienced teachers.</td>
<td></td>
</tr>
<tr>
<td>Working with others</td>
<td>Practical application of knowledge, ideas, strategies to specific students in the context</td>
<td></td>
</tr>
<tr>
<td>Exchanges</td>
<td>Observing other teachers create communication opportunities and use assistive technology.</td>
<td></td>
</tr>
</tbody>
</table>
Pre-Service Training

Gary, Polly and Derek perceived that their pre-service education prepared them little to communicate with students with MSD. Derek, for example, reported that there was limited content about functional communication in his teacher training: “As far as formal training, no actual nitty gritty—how can I help this person let me know that they need to go to the bathroom or they've got a pain. No, there was nothing like that”. Gary reported that his postgraduate special education course lacked practical “hands-on” experience. Coupled with lack of support for him as a beginning teacher, he perceived that he essentially “had to learn on the job”. He also observed from his exposure to student teachers that there was a continued overemphasis on “theory” and structured teaching that does not prepare teachers for facilitating functional communication skills in students.

In contrast, teachers more recently qualified, such as Zara and Molly, spoke of pre-service training that prepared them well for working with students with MSD. They perceived their courses as providing adequate practical experience. Zara talked about having a lecturer, a former teacher at the SSP where she worked, who imbued her with “really good basic foundation skills in communication”. Zara also reported completing a practicum at her current school with a supervising teacher who was “really strong in communication” and “modelled all of that for me”. Molly also valued the practical component of her pre-service training because: “It gave you hands on experience with students with severe disabilities and it was really good. It prepared you before you started”. Other teachers also perceived the importance of practical education. Gary recommended student teachers spend two days per week in different settings during pre-service training. He also perceived the need for student teachers to learn collaboration skills, so as to be able to work with others.

Lack of Availability of Continuing Education

Regardless of their pre-service experiences, most teachers perceived a lack of available continuing education. Jake, Polly and Derek talked about having attended almost no communication education since their pre-service training. Gary stated that teachers could be teaching students with MSD for decades with very little communication education to support them. He said: “There’s a tendency for people like me to train and go to a school and that can be all you do other than the odd in-service day for 30 years!” Polly reported that, excepting a two-day in-service on
autism spectrum disorder, she had had no communication education in 20 years of working in special education. Teachers reported several reasons for this situation: (a) communication was not the focus of professional learning being provided by the state education system (Derek), (b) limited funding and philosophical and administrative support at the school level (Polly and Jake), and (c) geographical isolation. Penny said: “I don’t think there’s much to talk about training because there isn’t any, and again I found this huge discrimination from being in the city to the country”.

The Model of External Courses
Teachers also perceived the traditional lecture style of communication education referred to by Sally as “chalk and talk”, as not useful. Teachers noted that in-services/workshops tended to be too general when students with MSD were a heterogeneous, “incredibly diverse” (Gary) group with complex communication needs. They commented that their professional learning needed to be specific, in relation to individual students, as Polly and Leanne pointed out:

> Each child is different and that’s the problem in multiple disabilities. You need something that’s a bit more specific and I can’t see how in one or two days training I could possibly learn to do something that’s specific for one child (Polly).

> To me “OK, I’ve got this child. I’ve got to deal with this child everyday. What do I need to know for this child?” , which no general course can help you with. (Leanne)

Some teachers found the content of workshops overly simplistic. Zara commented that most teachers at her SSP had stopped accessing professional development outside the school because it was not presenting new or sufficiently advanced information, strategies or resources. She commented: “We obviously wanted to be extended upon what we already know and we weren’t being so we stopped attending those things”. Others commented that compulsory in-service days were irrelevant to their needs and wasted resources that could be directed to greater benefit. Gary said:

> I can honestly say none of these training days have been any good and I tend to not go looking for district-run staff training. There’s so much more we could be doing that would be of benefit. Other resources are just chipped
away, like what happened to the speech therapist that came in two hours per week to my six kids?

Other teachers also perceived workshops as impractical, with ideas difficult to apply to their particular school settings. Sally stated that the state education system had provided in-services on communicating with students with MSD, for example using *Creating Communicative Contexts* (Butterfield et al., 1992), but she had found this difficult to apply in the mainstream high school context. Leanne and Jake described the amount of information presented in short, half to one-day workshops as “overwhelming” (Leanne) and difficult to absorb. Teachers reported difficulty applying information from workshops upon returning to school. Penny related this experience:

> If you go to an in-service, which is better than nothing, if you don’t try it out you come away really not knowing. An example of that [was when] we were given a banana keyboard. We went down for the in-service on how to use it. I was really inspired but I really didn’t take in anything. Unfortunately, nobody did and it has never been used.

Penny and Jake felt that attending workshops was not adequate for ensuring application of resources or enhancing a teacher’s practices in the classroom.

However, Donna recalled attending a communication course 15 years previously, conducted over a series of weeks at a university in a regional centre. Donna remembered being required, in between sessions, to observe how one of her students communicated, and then attempt to respond to him. She then discussed progress at the sessions. She recalled that this course taught her to identify and respond to the communicative behaviours of her student:

> They were advocating that you find out how that particular student communicates and then you go with that. So you were actually asked to observe the students and we did. I remember one boy who used to just pat his chest, but then I came to realize that he did some things like that for different people, and different things that he wanted, so then I started to read that which worked reasonably well.

**Inability to Meet Specific, Identified Training Needs**

Other teachers, however, described the inability to have specific, identified training needs met as an obstacle. Penny talked about a need for training and support with the
operation of technology and particular pieces of equipment, highlighted by the example of the banana keyboard:

I’m not good at the actual operation of things, but I know what can be done.
I’ve got all these things I’m dying to use but I’ve got this block about starting.
If you had somebody just teaching you in a position where you could ask questions and do it slowly and actually do it yourself.

Penny concluded that there “could be so much done which doesn’t happen because of lack of training”. However, other teachers perceived that their own attitudes could be an obstacle to trying new technologies.

**Teachers’ Attitudes**

Teachers commented that their “technophobia” (Leanne) or belief that they could not use assistive technology presented an obstacle to learning to use AAC resources. Leanne commented that beliefs such as “I can’t do this” presented an obstacle for her to adopting assistive technology for which she had received training. She reported working through such beliefs as she saw the benefits or usefulness of these resources for her students’ communication opportunities. She also perceived that as a result, she became more positive about communication education, and motivated to adopt innovation in the future. Molly also reported disregarding ideas presented in her pre-service training because they were inconsistent with her many years of dealing with children with MSD as a parent.

**The School Culture**

Teachers at the metropolitan SSP perceived that their professional development needs were met within the school through: (a) collegiality among staff with a high level of experience and expertise, as discussed in Part 2; and (b) regular professional development for application of assistive technologies. Zara commented:

I don’t think there are many people at this school who need to go and do additional training. We know the basics of how to assist students to do choice making and how to teach kids how to request. From there on it’s about knowing the kids and then knowing how to use programs like “Writing with Symbols” and “Boardmaker” and just going from there and figuring it out.

Leanne reported that new resources were supported by staff education “making it easier” for teachers to implement visual communication systems in their classrooms.
As Leanne commented: “It’s not just getting the resources, it’s teaching people how to use the resources and that’s the way it is here”. Leanne described plentiful opportunities and time to practice using new communication resources with ongoing support from other teachers. She said:

*We just got a new software program “Writing with Symbols” and it’s just excellent. So they automatically do a teachers’ staff meeting: “This is what it is and this is how it works and this is what you can use it for. Have a go” and you think “oh yeah” If it was just something, a package sitting on a shelf or even something on the menu on the computer you might get around to having a paddle, but maybe not... but once they’ve presented it you think “ooh! do-able!”*

As a result, Molly observed: “So it’s constantly learning and constantly meeting needs as they arise and I think it’s very positive for the kids”. She felt that “for practical purposes” this model “works really well”.

**Mentoring for Early Career or Inexperienced Teachers**

Several teachers described the value of having a mentoring relationship or informal support from more experienced teachers when they first began working with students with MSD. Leanne, Sally, Gary and Zara suggested that this helped them to get started communicating with individual students. Zara talked about how the teacher who supervised her during her student practicum continued to support her when she subsequently began working at the school. She said of this more experienced teacher: “She was always there to support me”. Gary told a story about working with a very experienced LSO who basically taught him “on the job”. He also noted potential problems with mentoring relationships: “There’s a crucial role for mentoring and probably not even from one person because if you get the wrong person, if you get someone who’s burnt out or you don’t get on with, that’s not going to work”.

**Working with Others**

Several teachers in SUs spoke about the value of having someone from outside the school come and work with them in the classroom, in their school context. They perceived this to be the most relevant form of communication education and more effective than the workshop/in-service model. The main reason for this was reported to be the focus on practical application in context. Penny said:
It is so much easier for an outside person to come in and demonstrate as an expert or a consultant, to make changes and for people to have that hands on so they know what they’re doing, for everybody to listen so everybody knows that is what should be happening. It’s much better to give an actual practical demonstration.

Sally and Barry found that this practical input enabled them to learn how to incorporate communication into specific lessons in the classroom. Barry said: “We actually have had a couple of people come and do that and that has been great...who will work with you and specifically look for opportunities that you can fit communication in”. Sally experienced lasting benefits from having a specialist teacher working with her on a regular basis in her classroom. These teachers also spoke about collaboration with SLPs. Both are discussed in detail in Part 4.

Exchanges
Several teachers also perceived that exchanges with other special education teachers in different settings would be valuable. Barry expressed a need to see how other teachers used assistive technology and created communication opportunities in their classrooms. Gary talked about the value of seeing how functional communication actually happened in more mainstream settings. He said: “There is a need for people to be able to go and have an exchange. It’s valuable because you get first hand to see an inclusion policy taking place. You also get to see things from mainstream teachers’ perspectives”.

In this and Part 2, teachers views about the supportive value of working with others was introduced. This included other teachers at the same school, as well as people from outside the school context. In Part 4 findings regarding the role of visiting specialist teachers, SLPs and other therapists, as well as parents/carers are presented in detail. Teachers’ perceptions and experiences of the state education system and other government departments are also presented.

PART 4: OTHER PEOPLE OUTSIDE THE SCHOOL CONTEXT
Sally commented that support from other people was needed because of the complexity of the task of coming to communicate with students with MSD. Teachers spoke about supports and obstacles associated with; the home context, other professionals in their geographical region or area, and governments departments.
These are represented in Figure 4.1 by the two concentric circles around School Context, and are summarised in Tables 4.5 and 4.6 respectively.

### Geographical Region or Area

#### Table 4.5

| Supports and Obstacles Located in the Geographical Region or Area (Stage 1) |
|---|---|---|
| **Factors** | **Supports** | **Obstacles** |
| Home context | Co-operation supports development of systems at school and consistency in communication access across settings. | Changes in staff at residential facilities can interfere with consistency and continuity of communication programs. |
| Other special education teachers | Discussion and sharing of ideas about communication. | Limited opportunities to network due to geographical isolation. Limited support from the state education system. |
| Visiting specialist teachers | Bring new ideas about how to stimulate students’ communication. Support teachers with programming and lesson content. | No regular opportunities for team-teaching. |
| Speech-language pathologists (SLPs) | Expertise in identifying communicative behaviours and in AAC. Educative role. Practical, hands-on input in context. Collaborative relationship: regular, physical presence. Working in different settings with students. | Interventions not supportive when not relevant to classroom program. Effective collaboration not always possible; teachers may feel overwhelmed and intimidated. |

### Home Context (Including Out of Home Care)

Over half of the teachers talked about the influence of the home context on communication with students at school. Teachers perceived the home environment as playing a role in supporting students’ communication at school. Several teachers viewed co-operation with a students’ carer(s) as crucial for successful communication. Molly stated:

> You must be willing to listen not only to students, you must be willing to listen to the parents and work out how they communicate with them and what they do with them and then you put that across the board as well with the students.
Penny found that collaboration with a parent over a news book enabled her to begin creating communication opportunities in the classroom for her student with MSD. Teachers commented that the use of the same communication program or system at home and school supported consistency in students’ access to communication across settings. Leanne described a situation where a parent provided her with a list of activities that her child could choose while attending respite care. This enabled Leanne to make a copy of his communication system for that setting also.

Teachers perceived that the home context could also present obstacles. Derek commented that inconsistent staff in residential facilities such as group homes could make it difficult to achieve consistency and continuity in individual students’ communication programs. He said: “It can be difficult to get everybody working together. Sometimes group home staff change a communication program that everybody has been working on” without discussing this with the teaching staff.

The educative value of working with others, mentioned in Part 3, referred mainly to other specialist teachers, and SLPs and other therapists.

**Networking with Other Special Education Teachers**

Barry commented that networking with other special education teachers was supportive because it enabled discussion and sharing of ideas about communication. He recalled:

> We used to have a special education network, all the support units around here would get together to discuss things like communication, sharing ideas and unfortunately that sort of lapsed a few years ago and that was one of the only opportunities we used to have to actually have that cross feeding.

A few teachers spoke about having no opportunities to network with special education teachers in other schools in their area. Penny and Barry perceived that this was due to the geographical location of their schools. Barry said: “It is a strange thing with support units, especially up here where you are completely cut off from others”. Barry also stated that there was minimal support from the state education system for teachers in different areas to have more contact with each other.

**Support from Visiting Specialist Teachers**

Several teachers talked about the value of input they received in relation to students’ communication from itinerant support teachers for hearing and vision. These specialist teachers were reported to inject new ideas about how to stimulate students’ communication and to train LSOs to conduct communication-based activities
individually with students. As mentioned in Part 3, Sally also reported having a period of team teaching with a visiting specialist teacher when she first started teaching students with MSD. She said:

*She came and worked with me on my first class and was the one that showed me what was able to be done in terms of communication. She came in and did sessions with me working with the students. We looked at programming for high support needs students. She suggested lesson content, together we developed some practical examples of lessons, fitting our programming into curriculum areas, where we were encouraging communication and choice-making. I found that extremely valuable to learn from a peer and I still carry on with some of those lessons.*

Sally perceived that because this specialist teacher had worked across different settings and was familiar with the students and the school contexts, she was able to support continuity in communication programming for the students. Sally reported however, that this was a one-off episode. She perceived that further support would be useful for updating lessons. Barry and Gary also perceived the need for more visiting consultants/specialists, “*a flying squad of people*” (Gary) to come in from outside the school. Gary reported that currently the only support available at his school was from within the school.

**Collaboration with Speech-Language Pathologists (SLPs)**

Teachers noted that SLPs supported them, through: (a) their expertise, (b) their educative role, (c) collaborative relationships, and (d) benefits arising from working in different settings. However, some teachers reported that interventions were not always supportive, and collaboration was not always possible.

*The valued role of speech-language pathologists (SLPs).* Most teachers valued the expertise of SLPs and experienced collaboration as supportive. Derek stated that because the complex communication needs of each student with MSD were so different: “*I think it’s too hard to do it on your own*”. Polly added, “*You need speech pathologists*”, and Sally described SLPs as a “*tremendous support to us*”. Leanne agreed: “*I’ve got a speecchie coming into my class working with the kids at the moment and it’s great*”. Gary found collaboration with SLPs “*wonderful*” support for teaching his students functional communication skills. Several teachers also perceived a need for SLPs’ expertise regarding AAC and assessing ways for students with severe physical disabilities to access communication. Donna said: “*Our speech pathologist is*
concentrating on the children with the severest disabilities trying to find the best method of communication. She’s been really good’. 

The educative role. Several teachers perceived that, particularly in the early part of their careers, they relied on collaboration with SLPs to learn how to communicate with individual students, and to develop and implement communication programs. Jake said:

Sometimes the kids would just communicate with the movement of an eye or a blink or a little bit of a smile or the twitch of a facial feature. So to be able to identify those communicative behaviours, you need to have help.

He reported that:

I ended up working with a speech pathologist from [government department] who helped me, doing functional behavioural assessments, to figure out what these kids were trying to communicate through their very difficult and challenging behaviours. Working in that co-operative way, with someone from outside of the department was very, very good, and it actually enabled me to understand what was going on with some of the kids and to solve a lot of the problems.

As a consequence, Jake was able to respond to his students more effectively and teach them more socially-appropriate behaviours. Jake commented that what he had learned about communicating with students with MSD had come through collaborating with a SLP. Several teachers commented that collaborating with a SLP compensated for the lack of availability and relevance of workshops/in-services.

This educative role included training LSOs to implement individual students’ communication programs. Penny perceived that as an “outsider”, a SLP could support teachers attempting to make changes in the communication practices of other staff at their school.

Contextualised and functional intervention. Several teachers observed that practical, “hands-on” (Derek) input from a SLP in their classroom context was particularly supportive. Jake said:

The advantages of collaboration are huge because the therapist is coming into your classroom. They are looking at you and the kids in the context of your classroom, at the pressure you’re under and what you are capable of coping with, and they are working with you as a professional and as a human being and they can support you.
However, a few teachers commented that SLPs’ recommendations could be impractical, resulting in them not being implemented. Leanne recalled that in the early part of her career working with students with MSD, SLPs’ recommendations felt like “extra work” because they were “really hard to fit into [her] program”. Barry also recalled experiences where therapists’ recommendations ignored the classroom context, particularly the needs other students in the class apart from the individual target student.

**Collaborative relationships.** Teachers identified factors that they perceived to build supportive collaborative relationships. They felt that the SLP having a regular, physical presence (weekly or fortnightly) at the school was supportive because of the accessibility for problem-solving. Derek said: “Just the fact that we saw people on a regular basis so if we did think of something we could just run it past or just ask for a little bit of help fairly spontaneously”. Derek noted that when SLPs were visiting the school weekly, teachers could access them “immediately”, “informally” to problem-solve and “check out ideas”. He recalled that the SLP also “spent time collaborating with teachers more formally” about developing and monitoring individual students’ communication programs. Teachers valued working closely with SLPs on an ongoing basis. Jake said:

*The collegiate relationship has to be something that is built and is ongoing so that you can relax with the therapist. You’ve got to have a good professional working relationship to be able to communicate, sort out problems, debrief, nut things out, figure out what’s going on to be able to move forward.*

Teachers also perceived that teamwork was supportive. Derek reported that the SLP and other therapists worked as a team, providing a holistic approach and creating a “sense of community” for the teachers. He said: “I think to a great degree we really did have a system where we did work quite closely together”.

However, not all comments about collaborating with SLPs were positive, and a few teachers in special schools made no mention at all of SLPs. Leanne observed that teachers were not always able to collaborate effectively with SLPs. She recalled that in the early part of her career, she felt “overwhelmed” because she was trying “to take so much on board”. She recalled feeling “intimidated” and finding “that person from outside” quite difficult to work with. She did eventually give the SLP feedback, and found that she was receptive:
When I did eventually venture with “Oh I don’t think this is working”, [she said] “Oh really why not? Maybe we could try this”. She had a thousand other ideas. If I had spoken up sooner, we could have had something more meaningful. I just didn’t have the courage. That comes back to something personal.

Working in different settings. Finally, it was seen as an advantage that SLPs worked across different settings, including the home context. Derek commented that SLPs, who had worked with students in their pre-school and primary school years, as well as in their home settings, were invaluable in facilitating the consistency and continuity of these student’s communication programs across settings and over time. Polly noted:

*Every student who’s disabled needs speech pathology, whatever their mode is, to keep it going, developing it and getting it consistent. I really believe the students would be able to communicate more if they have that sort of consistency.*

In addition to their perceptions and experiences of working with individual professionals, teachers also talked about factors associated with the government departments responsible for service provision.

**Government Departments**

Teachers spoke about obstacles associated with their own department and the department responsible for SLP and other therapy services. These are summarised in Table 4.6

**State Education System**

More than half the teachers interviewed identified obstacles they attributed to the state education system. These included: (a) the departmental focus on curriculum and key learning areas, (b) competing demands on teachers’ time, (c) insufficient funding, and (d) unsupportive staff.

*The Departmental focus.* Teachers perceived that the department’s focus on mandatory curriculum and programming for key learning areas (KLAs) conflicted with a focus on communication and meeting the communication needs of individual students. Jake said:

*The whole impetus is not really driven from a communication standpoint. It gets driven from a platform of the department; report cards and programs.*
There’s a lot of pressure for the key learning outcomes and indicators and report cards. Sort of churning the education machine, instead of actually focusing on the child’s individual needs and catering for their needs specifically. I think it’s much more pertinent to focus on the child as the communicator and then bring in the English later.

Table 4.6
Supports and Obstacles Associated with Government Departments (Stage 1)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>State education system</td>
<td>Focus on curriculum and key learning areas.</td>
<td>Competing demands on teachers’ time.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insufficient funding for staffing and other resources.</td>
</tr>
<tr>
<td>Other government departments</td>
<td></td>
<td>Unsupportive departmental staff.</td>
</tr>
<tr>
<td>(responsible for SLP services)</td>
<td></td>
<td>Insufficient SLP services.</td>
</tr>
<tr>
<td>Communication intervention</td>
<td></td>
<td>Organisational changes that made SLP services less accessible.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brief intervention model.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loss of support for teachers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of assessment for AAC, and maintenance and review of AAC programs.</td>
</tr>
<tr>
<td>Inter-agency co-operation</td>
<td>Limited inter-agency communication and systemic support for families.</td>
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</tbody>
</table>

Polly agreed that it was “actually really difficult” to incorporate communication with students with MSD into curriculum activities. She felt that there was a need for focus on implementing communication programs with individual students. Polly and Penny perceived that this was an issue about Departmental priorities.

Competing demands on teachers’ time. Teachers also observed that the amount of time required to document programs for KLAs competed with time they required: (a) to determine how to communicate with individual students (Jake), (b) for identifying naturally occurring opportunities for communication (Leanne), and (c) for developing and implementing communication activities. Leanne reported that over the 6 years she had been at her current school, the requirement for documentation had increased and was “very time-consuming”. Barry agreed:

What takes up all of our time is this stupid programming. Our spare time is spent making sure our outcomes are all in line and that we’re teaching science and maths. In former years I used to build all those light boxes in the sensory
room and make up lots of communication activities for the kids. Well most of that time now is servicing your program.

Leanne felt that planning was important for creating communication opportunities for students, and that she did reflect on her practices. However, she also felt that prescriptive planning could result in teachers missing opportunities for communication as they arose naturally throughout the school day. She acknowledged that the time required to complete paperwork meant that it often did not get done.

**Insufficient funding for staffing and resources.** Several teachers felt that the insufficient funding for staffing and for resources such as assistive technology, discussed in Part 2 in the school context, was also the responsibility of the state education system. Hence, in Figure 4.1 Funding is represented as a bar crossing from School Context to Government Departments. Penny made this comment about seeking funding for assistive technology: “If I hadn’t had other contacts I would have nothing because at the time District Office were singly unhelpful. There was nothing really forthcoming from there”.

A few teachers also reported that the state education system did not provide funding for transport for community access. Polly perceived that the Department would not support her unit to purchase a bus so that students with MSD could participate in community access, and she stated that “these students have been disadvantaged as a result”. She also said:

> My Head Teacher could do with some support from them instead of constantly appearing as though she’s going to be battling for resources ... and I don’t think a Head Teacher should have to be aggressive. I think it’s the right of these children to have what they need.

Community access is discussed in further detail in the final part of this chapter. Some teachers expressed a view that departmental staff were unsupportive.

**Unsupportive Departmental staff.** Teachers perceived that Departmental staff were focused on cost cutting rather than supporting them and their students with MSD. Polly commented: “I don’t know what they could do for me to be quite honest, to be quite truthful. I suppose that’s the problem. I suppose they are just money, organisation and allocating resources”. She could recall only one visit from Departmental staff to her SU, 9 years earlier: “They said we were an anomaly because we had so many children in wheelchairs. No...don’t see anybody here except when they’re going to cut a class”. Barry concurred:
I haven’t actually met our new special education co-ordinator in the region. The former one was going to come to see what it’s like on the coal face but she never made it. It really is one of being a bureaucrat now and cutting costs.

Barry described review panels where those making decisions about students’ educational placements had not bothered to come and meet the students. He commented that Departmental staff: “have forgotten the kids”.

Other Government Departments and Communication Intervention

Some teachers talked about obstacles associated with other government departments, particularly the department responsible for providing SLP services to students with MSD. Identified obstacles included: (a) insufficient SLP services, and (b) organisational changes that made SLP services less accessible. Organisational changes presented an obstacle because they resulted in loss of support for teachers and limited access to assessments for AAC and maintenance and review of AAC programs. Teachers reported their responses to changes in SLP services. There was also comment about lack of communication between different agencies providing services.

Insufficient speech-language pathology (SLP) services. Most teachers noted that there were insufficient SLP services for young people with MSD. Polly and Penny talked about students with MSD arriving at high school having had no communication intervention: leaving teachers with the difficult task of teaching students communication skills before they finished school. Penny said of her student with MSD: “He’d never had any sort of formal communication at all”. Polly perceived that insufficient early intervention services and a lack of consistent services in primary and high school presented an obstacle to the consistency and continuity of communication programs for individual students. She wondered what implications this situation could have for students’ access to communication in the future:

What’s going to happen with these kids in the future if they don’t get this sort of input now? If you’re still asking for a speech pathologist to be coming to high school to start programs I think there’s something wrong. I can understand that perhaps services ease off in high schools when all those things should be in place and you’re just reviewing programs, but when they come and there’s been virtually very little, there’s not enough services to these children.
Teachers who had worked across a number of different settings reported that therapy services had gradually diminished in recent years. Gary talked about the “erosion” of therapy services:

One thing that’s been sad has been to see the complete erosion of structured visiting therapy times. In 1995 my class had a 2 hour session every week with an OT and a spechie for our six kids and that’s unheard of now. It’s a shame because that expertise is vital, and when that’s worked in the past, I’ve seen it work, it’s wonderful.

Penny agreed with Gary. She found that this was occurring in her previous metropolitan SSP but noted that it was more pronounced in her current regional school, perceiving an influence of geographical location:

I found this huge discrimination from being in the city to the country. [At the special school] we had a resident team of physio, OT and speech pathologist so we had the people on hand all the time. Even though that service diminished a lot, they were still on premises but the role became consultancy rather than the hands on as it used to be. Then of course their case load got huge, so it wasn’t satisfactory, but there was something, whereas here there’s absolutely nothing...nothing at all.

Teachers’ reports suggested that there was inconsistent access to SLP services for schools in regional areas.

Organisational changes to speech-language pathology (SLP) services. Other teachers experienced the erosion in SLP services over a much shorter time frame. A few years prior to the teachers’ interviews taking place, there was a restructure of the New South Wales (NSW) government department employing SLPs who provided services to students with MSD in public schools. Teachers in a regional SU recalled that the therapy team was physically relocated and there were changes in the procedure for requesting a SLP service. Several teachers commented that this procedure was complicated and not clearly understood by teachers. Gary recalled:

We had a visit from this mammoth team of therapists who came to our staff meeting. They gave us a big talk on how things were going to work now ... and it didn’t make any sense to anybody. We kept asking for it to be explained but it still made no sense. I have not encountered one single therapist in the seven or eight months that I’ve been here at this school.
Teachers also commented that waiting times became so long that by the time a service request was activated, the student may have a different teacher and the issue may no longer be relevant. Derek concluded:

> It’s almost not worthwhile putting in the paperwork for a kid to see a therapist because it’s such a complicated procedure, constantly changes, and I might put it in and then in 18 months time it’ll get looked at.

Teachers also felt that when they did see a SLP, their brief visits were not helpful. Derek noted: “When therapists do come in, there’s no collaboration, no real assistance in developing communication programs like we used to have”. Jake agreed: “Any sort of collaboration needs to be ongoing. It cannot be sporadic and what’s in existence at the moment is a sporadic model. There’s band-aid work being done at the moment”. Jake and Derek reported that a SLP would see one student for a few sessions, then drop in a communication book a few weeks later, and leave. None of these teachers perceived this as collaborative or supportive. Derek concluded that: “It’s a real battle to get services”. Not all teachers reported this experience, however. In contrast, Donna said: “In the last two years the therapy service has been quite good” but “prior to that we had years with no service”.

Teachers perceived that these changes resulted in loss of the support from SLP services from which they had previously benefitted. Jake said:

> When I first started, I had a huge amount of support from outside of the Department; from the [government department] team. After a few years, there were big changes and cuts in government funding, and it was like having the rug pulled out from underneath your feet. We completely lost contact with all of the support mechanisms which had been in place to support us as special needs teachers. Speech pathologists evaporated. So, suddenly, the teachers were supposed to just do everything all by themselves. That to me was a huge, huge change.

Teachers reported that SLP services were no longer readily available. Derek reflected that he no longer had those opportunities for informally talking with a SLP. He said: “Now that opportunity is not ours anymore and if we do want that, it’s a more complicated process to refer and blah blah blah to get that assistance that we had before”. Derek commented that many teachers had “given up making referrals” even though their perceptions of the need for the service had not changed, and “we haven’t had anybody here [at the SU] for ages”. Sally agreed: “I think the fact that we get a
lot less support from the therapy services now is a really important thing. We had a team and we don’t have that anymore”.

Sally, Derek and Jake perceived that they no longer had support for the development of communication programs, particularly AAC systems, and for access to resources such as visual communication systems and electronic devices. Derek talked about: “that consultative program development role that we really haven’t got anymore”. Jake added:

So suddenly there was no support for functional behavioural assessments, to help kids use their switches properly and design switches for them [or] to design augmentative communication systems. So, teachers have been working in a much more isolated environment.

According to Sally, Derek, Jake, and Gary this loss of support for teachers consequently had an impact on the students. Sally talked about not being able to find a way for a particular student with MSD to access assistive technology so that he could make requests or choices. She said:

I’m thinking of a student at the moment. His physical disabilities are such that it’s very difficult for us to find some form of technology that he can operate; switching devices, head switches, many things have been tried. [If] an expert in that area, which we’re not, can come and help us address his physical needs which then allows us to address his communicative needs and being told there’s a two year waiting list for access to services is very distressing.

Jake perceived that as a consequence, AAC programs were not maintained and therefore stopped being used. He said: “The impact was huge because the augmentative communication programs weren’t refreshed anymore. It was effectively like the actual contact with the kids was slashed as well. It was like losing 50% of the manpower”. Jake concluded that the overall impact of the “reduction in actual communication work with students” coupled with communication programs not being up-dated, was that “the students definitely have fewer opportunities to communicate”.

Derek and Sally had noted a loss of consistency and continuity in individual students’ communication programs that had previously been facilitated by SLPs’ regular presence. As Derek said:

When we had that more immediate therapy service and a consistent therapist they could keep things on track more as well. As the role of the therapist has been diluted I think in these sorts of settings we’ve lost that consistency.
Sally perceived that the consequent “breakdown” in individual students’ communication programs meant students were leaving school without fulfilling their potential as communicators:

> When we were having regular visits from speech therapists, I felt very supported in my work with students with high support needs, but that’s no longer the case, and that is the greatest frustration. I know these students are able to communicate more effectively. I know that they should be leaving school with far higher level of communication than what they are and I feel quite frustrated that I’m not able to deliver them to the level I think they’re capable of.

These teachers also described their responses to these changes.

> Teachers’ responses to organisational changes. Several teachers perceived that there was little they could do about the consequences of this organisational change. Jake said:

> I personally don’t see a way to realign the focus of the support unit. Here we are six years on and I can’t see support there for doing that deep delving behavioural work that actually does pay dividends and valuable results with our kids. You’re just an individual doing the best you can inside of the system.

As a result of the lack of support from within the education system and from outside agencies, Jake said:

> I think teachers are very, very under-supported systemically to get communication happening with our kids with MSD. There’s no focus towards communicating with the kids ... There’s a lot of bandaid work being done. It’s not just the therapists but it seems to be right through the whole system’.

Teachers perceived that there was also little communication between the state education system and other agencies about students with MSD.

> Interagency Co-operation

Gary talked about lack of communication between teaching staff and medical services and human services agencies about the complex health needs of students, such as possible side effects of their medications. The implications of not having this information were reported in Part 1.

Teachers also reported experiencing a lack of co-ordination between the teaching staff and non government organisations (NGOs) that delivered post-school options. Gary reported that this lack of co-ordination resulted in communication
programs and extensive knowledge about how to communicate with individual students being lost when the students left school. He said:

*They [students] should have some period of transition where it’s not just a transition for them but it’s a time where you’re literally working with whatever the next agency is over their final year of schooling. So then whatever knowledge has been built up can get passed on otherwise that gets lost once the kid leaves school. That gets completely lost.*

Finally, Gary reported inadequate support systemically for the complex needs of families of children with MSD. He talked about a student whose parents had been trying in vain for years to obtain some respite service. Gary watched as their resources, in terms of emotional and physical energy, for working on functional communication skills at home became severely limited. For this particular student, this resulted in family breakdown and his placement in out of home care. Gary identified out of home care as another context that needed to be considered in terms of communication opportunities available to the young person with MSD.

This part presented teachers’ perceptions of the role of government departments, their expressed concerns about students’ access to communication in other settings and after leaving school, and their observations regarding the lack of systemic supports for families of students with MSD. This introduced teachers’ perceptions and experiences of social inclusion and access to opportunities for communication in the broader community, for students with MSD. These factors are presented below in Part 5.

**PART 5: BEYOND SCHOOLS**

Ten of the 11 teachers described a connection between their communication work with students and opportunities for communication with other communication partners and beyond the classroom. They talked about social inclusion, both in the school setting and in the broader community, and their perceptions of discourses about disability. These are summarised in Table 4.7 and represented in Figure 4.1 by the outermost circle.
### Table 4.7
**Societal factors (Stage 1)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social inclusion</td>
<td>Segregation in school settings: limited exposure to range of communication partners in SSPs; minimal integration in mainstream settings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community access programs. Barriers to community access programs, eg. insufficient staff and lack of transport.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication goals for accessing communication outside school.</td>
<td>Dependence on AAC systems which are not portable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barriers in the physical environment to accessing community places.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Impact of social policy and legislation.</td>
</tr>
<tr>
<td>Social discourses about disability</td>
<td>Community attitudes and perceptions of students with MSD.</td>
<td>Persistence of segregation in social life and employment.</td>
</tr>
<tr>
<td>Social change</td>
<td>Need for socio-structural change to improve access to opportunities for communication.</td>
<td>Limited impetus in society to bring about change.</td>
</tr>
</tbody>
</table>

### Social Inclusion

**Segregation in the School Setting**

Teachers in SSPs, who felt they had communicative contexts in their classrooms, also talked about the disadvantages of segregated settings. Zara commented that it could be difficult in an SSP to expose students to a range of communication partners. She noted that it was predominantly staff who communicated with students. She reported attempting to engineer activities to create opportunities for students to communicate with each other. Molly perceived that children attending the SSP often lived long distances away and so did not have social networks of peers in their local community. She said that teachers at the school were conscious of supporting families to build social networks that would facilitate interactions for their children, and to access other organisations for recreation activities and respite. However, as previously mentioned, Jake observed that there was minimal integration of students with MSD at his
mainstream school, so that students were not being given access to more opportunities for communication with peers without disabilities.

**Importance of Community Access**

Teachers spoke about “community access” (Polly, Molly) as a program conducted by schools to promote exposure of students with MSD to the wider community. They perceived that community access provided opportunities for students to communicate with members of the general public, for example when purchasing items at the local supermarket. Molly commented that half the classes at her SSP went to different shopping centres during the course of a week. She also stated that community access “works both ways” because students’ regular presence in the community raised awareness and educated the general public about how to communicate with people with disability. She said: “I think it’s very important that the children are exposed to the community and the community is exposed to them because it’s the only way you’re going to build understanding and bridges”.

However, teachers also identified barriers to the community access program. Polly stated that under-resourcing of her SU, prevented students participating in community access. Molly commented that with four students in her class who used wheelchairs, she could not go out into the community unless she had additional staffing. She noted that without additional staffing, her students were confined to a segregated classroom. Molly talked about how accessing community/public places was made easier by the school having its own buses. She said: “We take two buses when we go out because of our wheelchair situation”. She contrasted this situation to that in support units: “In another school situation you’ve got to hire transport or walk and that makes it very difficult”.

**Communication Goals for Accessing Communication Outside School**

These teachers perceived a relationship between “getting out into the community” (Molly) and students’ communication goals in the classroom. Gary noted that communication goals for his students were based on functional communication skills and modes that could be used in the community and were accessible to a range of potential communication partners. He said:

I’ve tried to be incredibly mindful of everything I do in the classroom with signs. It’s got to have a reason that exists outside the classroom. You can use the classroom like a kind of training ground, but if it’s not going to have a function outside, then it’s a waste of time doing it.
He felt that teaching his school leavers basic functional communication skills that could be transferred outside the classroom, such as being able to indicate the need to go to the toilet, had “phenomenal implications” because it increased their access to other settings and hence opportunities for communication after they left school.

So, Gary perceived that developing communication with a student should be about its use outside the classroom: “I’m best off using stuff that’s more every day. I’ll always opt for photos over any form of signing because I know that anybody else can use that and that student can use that with anybody else”. He said that dependence on AAC systems set up in the classroom that are not portable, actually presented an obstacle to communicating in the community. He commented:

If you’re at [shopping centre] that’s when you can’t have a system that’s completely dependent upon all these amazing things in your classroom in order for the kid to get to the toilet. It’s got to be able to be instantly transferred outside the classroom or that kid’s got a restricted life.

**Accessing Community Places**

Molly reported continuing to experience access issues, in terms of the physical environment. She had encountered difficulties with parking in shopping centres. Because of her students’ physical mobility and medical issues, she needed to be able to park the bus at close proximity to shopping centre entrances. However, she reported that access to car parks is often restricted because the “headroom” is too low for the buses needed to transport students who use wheelchairs. The proximity to public places of supported accommodation for students with MSD was also identified as an issue.

**The Impact of Social Policy and Legislation**

One participant spoke about the closure of a local supported accommodation facility for children and young people with MSD, following the *Richmond Report* (Inquiry into Mental Health Services in NSW, 2002). Gary recalled working at this establishment and that family, friends and members of the public and community groups came regularly to visit the young people. He described the particular facility as having been wheelchair accessible to the local village, where the children were often visible. He noted that, in contrast, the group homes they had been moved into were less accessible to public places and inadequately staffed, and that the young people with MSD had not “become more a part of the local community in fact the opposite [has] happened”. He perceived that: “The ‘institution’, for whatever that is, doesn’t
go away. Those places [group homes] become islands of complete isolation that they never used to be”. As a result the students “are actually exposed to a lot less people, so they have less access to various forms of communication”. Gary questioned whether the implementation of this social policy was achieving more social inclusion and access to opportunities for communicative interactions for young people with MSD. Teachers spoke further about the attitudes of other people towards communication options for students with MSD.

Social Discourses about Disability
Community Attitudes and Perceptions of Students with MSD
Teachers spoke about the potential impact of other peoples’ attitudes and perceptions on communication options for students with MSD. Donna noted that how others perceived students with MSD determined the extent to which they participated in the wider community. She said:

Another student wasn’t socially appealing, people would be put off. His gums had overgrown his teeth, he was quite grotesque in appearance because of medication and because he had severe epilepsy, osteoporosis, scoliosis. So, therefore, he was not going to be mixing much in the community. Mainly he needed to communicate with his immediate family.

Donna perceived that how others might view this student not only limited his opportunities for communication it also influenced the communication that she facilitated with him at school.

Molly also talked about public perceptions of students’ behaviour and lack of awareness of non verbal forms of communication. She commented:

The community on some hand are more accepting now of children with disabilities, but if you go out with a child with a disability and they start to play up, the community are very unaware of how to deal with it.

She recalled an experience while at a shopping centre when one of the students used her communicative behaviour of screaming:

For example I went shopping yesterday with my class. [Student] has a habit of screaming, but a really low scream; just one of her communication things. She started this screaming and I had people I had security guards looking at us as much as saying: “What are you doing to this child?” We were trying to give her a biscuit until we could get back to give her morning tea. The community
sometimes just don’t know how to deal with that. It’s really amazing how many people just stopped and stared.

Gary agreed with Molly and reported similar experiences. Molly concluded that while “the public is becoming more aware of other ways of communicating with these children”, there is still “a long way to go”.

**The Persistence of Segregation**

A few teachers reported the existence of a widespread view that social inclusion was not in the best interests of students with MSD. Gary perceived a trend over the last decade towards segregated education; a reversal of the previous trend towards integrated education for students with MSD. He speculated that the choice to send children with MSD to SSPs instead of SUs or mainstream classrooms partly reflected parental attitudes that their child’s needs were not being met in mainstream settings. He also speculated that this choice was influenced by “bleak prospects” for social inclusion after leaving school. Gary’s view was that community and employment participation was not going to happen for students with MSD due to lack of infrastructure. He gave the example that many workplaces still did not have wheelchair access, and stated: “*Circumstances don’t allow for it and it’s generally not in the best interests of them anyway*”. He concluded, however, that “*I can’t really be the judge of that*”. Molly agreed with Gary when she expressed the view that people with MSD were still quite invisible in the community. These teachers perceived a consequent potential impact of exclusion on access to opportunities for communicative interactions for their students with MSD.

**The Need for Change**

Finally, Gary perceived the need for social change in order to improve access to opportunities for communicative interactions for the students he worked with. Like Jake, however, he expressed frustration at the lack of “impetus” in society to make such changes:

> You can quite starkly see how things could be much better-it’s not pie in the sky- with only a little bit of thought, a little bit of collective communication and structural change things could change phenomenally but there’s no collective will out there for that to happen. Everything happens largely in isolation.
PART 6: SUMMARY

This chapter has presented a range of perspectives and experiences of teachers communicating with students with MSD, in segregated settings. It has recounted the range of factors they identified as supports or obstacles to their ability to communicate with their students with MSD. These factors were presented in expanding, embedded levels, from the individual, through the classroom and school context, to broader society, as represented in Figure 4.1.

At the level of individuals, teachers reported that characteristics of students with MSD, in particular their complex communication needs, were an obstacle to engaging in communicative interactions. However, teachers also reported that their own process of gaining experience, and positive attitudes, supported their learning how to communicate with students with MSD. Teachers perceived that building relationships with individual students, and taking the time to interact one-to-one, supported them to establish communication and enhance students’ communication skills.

However, teachers commented that factors in the context of the classroom, such as the composition of the class, the physical environment, and time constraints, influenced the amount of time they spent communicating with individual students. As a consequence, some teachers perceived that students were at risk of sitting with no activity or communicative interaction for periods of the day. However, other teachers thought that it was possible to engineer the context of the classroom to create opportunities for communication. Teachers stated that there were other factors in the broader school context that influenced communication practices in the classroom.

Teachers in SSPs and SUs reported different perceptions of school culture, and experiences of the degree to which they were supported to enhance communication for students with MSD. While teachers in SSPs perceived a whole school focus on communication, teachers in SUs felt that there was a lack of understanding of their needs as teachers, and the needs of their students with MSD. Teachers identified a range of factors in the school context that either supported or hindered access to communication for students with MSD. These factors were: (a) staffing, (b) opportunities for collegiality, (c) learning support officers (LSOs), (d) inappropriate practices, (e) attitudes of other staff, (f) integration, (g) resources, and (h) funding.
Teachers also reported responding to these factors in their context, for example through attempting to make changes.

This chapter also presented teachers reports about the lack of available, continuing communication education. Most teachers perceived that traditional styles of education such as in-services and workshops were, for several reasons, not supportive. Most teachers suggested instead that working with others with expertise and/or experience in communication with students with MSD was more effective. Teachers in SSPs observed that their training needs were met within the school. Other teachers, in SUs, perceived that they needed support from people outside the school.

Teachers’ perceptions and experiences of working with other people were also reported. These included parents/carers and professionals located in their area/region, as well as government departments. Most teachers commented that they could not establish and enhance opportunities for communication for students with MSD on their own. Unlike teachers in SSPs, teachers in SUs talked about relying on people from outside the school. These teachers perceived that working with other specialist teachers and SLPs supported them to establish and enhance communication for their students.

However, teachers perceived that, at a Departmental level, they were not being supported to enhance communication for students with MSD. Several teachers spoke in particular about organisational changes that resulted in loss of support from SLPs. Finally, this chapter included findings regarding the perceived influence of the broader community.

Although teachers commented on the importance of community access, they also noted that there were obstacles to students with MSD having opportunities for communicative interactions in the broader community. They noted that attitudes and beliefs about people with MSD in the broader community continue to limit access to community participation and hence opportunities for communication.

In the next chapter, the reported experiences of teachers communicating with students with MSD in mainstream classrooms settings are presented. In the same manner, this material will recount the factors identified by this different group of teachers, as well as reviewing supports or obstacles to their ability to communicate with students with MSD. Specifically, their accounts also include issues about including students with MSD in mainstream education.
CHAPTER 5

STAGE 2 RESULTS: TEACHERS IN MAINSTREAM SETTINGS

In this chapter findings are presented for teachers of students with MSD in mainstream classes, in rural, mainstream schools. These were all mainstream teachers. The chapter is also divided into five parts, reflecting a broad similarity in main themes for these teachers and their colleagues in segregated classrooms. These themes are represented in Figure 5.1. Part 1, Personal Journeys, describes teachers’ experiences of supports and obstacles at the level of individuals; their own characteristics as teachers, and those of their students with MSD. Communication education for teachers is presented as Part 2 in this chapter because teachers reported that their lack of special education and communication training was an aspect of their own characteristics, but was also perceived as important because of teaching in a mainstream school context. Interactions with the Context is therefore presented as Part 3, and encompasses the themes of the mainstream classroom and the mainstream school context. Part 4, Other People Outside the School Context, presents supports and obstacles associated with the students’ home context, and other professionals in the geographical region or area, as well as government departments. Finally, Part 5, Societal Factors, presents findings regarding social inclusion and discourses about disability. The categories of Time and Change are represented in Figure 5.1 as crossing multiple levels, and their effects as supports or obstacles are discussed in different parts of the chapter. Each part also contains tables summarising the factors and how they act as supports and obstacles. The chapter concludes with a summary.

PART 1: PERSONAL JOURNEYS

Two of the teachers in this group (Phoebe and Nigel) were in the early stages of their careers and had no previous experience with students with MSD. They spoke more than the other teachers about their feelings and experiences communicating with their student with MSD. The other three teachers each had 15 to 30 years experience and had previously taught at least one student with MSD. Regardless of the length of their

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5 A summary of this chapter has been published in an international peer-reviewed journal. A copy of this article is included in Appendix 21.
teaching experience, however, the teachers described communicating with students with MSD as “difficult” (Phoebe, Nigel, Naomi), “overwhelming” (Phoebe), “frustrating” (Betty, Dora), and “daunting” (Dora). Nigel said: “I find it difficult because apart from the greeting you’re left a little bit lost as to where to go from there. It’s a bit hard to prolong an interaction or a conversation of any manner”. Phoebe and Nigel also described feeling “uncomfortable” (Phoebe) and “awkward” (Nigel) in their attempts to interact with their student with MSD.

Figure 5.1 Systemic factors identified by teachers in mainstream settings
These two early career teachers spoke about feeling “inadequate” (Nigel) and uncertain about whether they were catering for the educational and communication needs of their student with MSD. Nigel said:

> Whether it’s beneficial, I don’t know how much I’m passing onto him. I feel at times as though I’m a bit inadequate in being able to cater for his needs. I don’t know if I am providing the best I can for him. That’s being brutally honest.

Phoebe added:

> I’ve been physically ill over this poor, little boy thinking “am I doing the best for him? Is this the right thing? What if what I’m doing is detrimental?” I don’t know if what I am doing is right. I hope that what I’m doing is right but I don’t know.

These teachers claimed that the experience of having to communicate with a student with MSD involved feelings of being unsupported. As an experienced teacher, Naomi noted that support had been “dwindling away” and as a result beginning teachers would “struggle” when faced with a student with MSD. Phoebe agreed with this view:

> I feel that I have been given this little person and been told just do your best and I don’t think that’s good for me and I don’t think that’s good for him. It’s been an interesting ride I guess you could say but I do feel that I’ve been let down a lot more than I have been supported.

Even as a more experienced teacher, Naomi commented about lack of support and the perceived negative consequences for the student with MSD: “This year we need support and we don’t have support. Therefore, you are trying to support that child but you know that that education and interaction isn’t as quality as what it could be with the support”. The levels at which this lack of support were perceived to operate are discussed in the subsequent parts of this chapter.

Yet these teachers also spoke about positive feelings and experiences, such as the “enjoyment” (Nigel) of actually engaging in a communicative interaction. Betty said: “[Student] makes my day when he smiles at me, it’s wonderful”. Phoebe described times when her student with MSD responded to opportunities for communication, and made “little achievements”, as “happy moments”. She went on to say: “That’s a smile I guess, that’s a smile in the heart”. These teachers identified obstacles, and some supports, at a number of levels, beginning with the characteristics
of students with MSD. Table 5.1 summarises factors at the level of individual students and teachers, and these are represented by the two innermost circles in Figure 5.1.

Table 5.1
Supports and Obstacles at the Level of Individuals (Stage 2)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student characteristics</td>
<td>Complex health conditions and multiple disabilities.</td>
<td>Complex communication needs; low spontaneity and responsiveness, idiosyncratic forms of communication, pre-intentional, one-to-one interaction and time required of teacher.</td>
</tr>
<tr>
<td></td>
<td>Complex communication needs; low spontaneity and responsiveness, idiosyncratic forms of communication, pre-intentional, one-to-one interaction and time required of teacher.</td>
<td></td>
</tr>
<tr>
<td>Teacher characteristics</td>
<td>Additional training, eg. sign language.</td>
<td>Lack of special education training.</td>
</tr>
<tr>
<td></td>
<td>Previous experience teaching students with MSD.</td>
<td>Lack of experience teaching students with MSD.</td>
</tr>
<tr>
<td>Relationship between teacher and student</td>
<td>Teacher’s ability to cater for student’s needs and communicate in the classroom.</td>
<td></td>
</tr>
</tbody>
</table>

**Student Characteristics**

All five of these teachers initially identified characteristics of their student with MSD as obstacles to establishing communication. These characteristics were identified as; students’ complex health conditions and multiple disabilities, and their complex communication needs.

**Complex Health Conditions and Multiple Disabilities**

Nigel reported that his student with MSD was often absent from class due to his complex health needs and this was a major obstacle to establishing communication. He said:

*He doesn’t spend a lot of time at school because of various issues. He’ll come in often later, at the end of the day, or leave early. Even when he is here, due to his condition, he does have times of the day where he sleeps. So, what I’ve found is that I’ll have him maybe once every 4 or 5 weeks in class.*

Phoebe also reported that one of her student’s disabilities was his “severe hearing loss”, which presented her with challenges communicating with him in the classroom.
Complex Communication Needs

Teachers also spoke about their student’s complex communication needs. They perceived that communication was difficult because of their student’s limited responsiveness and spontaneity. Betty said:

*With a typical student you are able to get some feedback and therefore know that the message that you have given them is understood. Sometimes [with our student with MSD] we may get no visual signs whatsoever, not even facial movement. So that, in itself can be frustrating.*

Phoebe agreed:

*It’s quite difficult because when I speak I like to ask questions that require a response and when I don’t get a response I feel a little uncomfortable and feel as if I’m having a one-sided conversation. It’s also difficult because there’s no speech and there’s minimal eye tracking, even gesture communication, there’s minimal touch and there’s minimal recognition of my voice.*

Several teachers expressed concerns about their student’s ability to comprehend. Nigel said: “*There’s very little understanding of instruction from his perspective that we may issue to him*”.

Teachers also perceived other obstacles associated with students’ complex communication needs. They reported difficulty interpreting students’ idiosyncratic forms of communication. Nigel said: “*High fives are a big thing for him for communication purposes. Language is not. He can’t communicate verbally so actions and eye contact are the biggest things*. He went on to say: “I’m only taking a guess or a stab at what it is that he’s trying to project”. Some teachers also perceived that their student may be pre-intentional. Phoebe noted:

*I don’t know if [student] has intent to communicate, that’s the hard part. We can put him in situations to foster communication but I don’t know if the intent is there, if he actually wants to communicate or if he literally just wants to grab your earrings and feel them.*

Teachers also observed that communicating with their student with MSD required increased effort and time on the part of the teacher. Dora said: “*They’ve got to have a lot of prompting*”. Naomi added: “*They just take up so much of your time*”. She perceived that students with MSD needed one-to-one interaction and support to participate in activities in the classroom.
However, teachers added that there were also perceived attributes of their student with MSD that promoted communication. Naomi said: “He was good to communicate with because he actually had a sense of humour”. Phoebe said of her student: “He’s a lovely, likeable little boy”.

**Teacher Characteristics**

Teachers perceived that their own characteristics presented obstacles to, or supported their efforts to establish communication with their student with MSD.

**Knowledge and Experience**

Lack of special education training, knowledge and experience was a major obstacle reported by teachers. Phoebe said: “I’m not trained and I don’t understand how it [communicating] works with a child with severe, multiple disabilities and minimal communication”. Nigel added: “It [communicating] is definitely very difficult particularly in my situation being a relatively inexperienced high school teacher”. He recalled the first time, only a few months before the interview, that he had the student with MSD in his class:

*The first time I had him in class I was so nervous about “how do I go in? This is very foreign to me, very new. Do I spend a lot of time with him? Do I let the other kids go and give them a bigger elastic band to stretch while I spend time with him or do I let him go to his own devices and spend more time with the other kids?” That was a very big moment for me anyway.*

Nigel commented that his lack of experience teaching students with MSD made it very difficult for him to provide opportunities for this student to communicate in the classroom. Naomi also recalled her initial lack of knowledge and experience and contrasted this with her current knowledge level. She said:

*Particularly for a beginning teacher, to be faced with a student with multiple and severe disabilities, it’s essential to have support. If I was a beginning teacher I would say that I would be struggling because I wouldn’t know where to go, what to do with this child but because I’ve got that background knowledge, I’ve got some understanding of where they should be at, where they’re going and how to get there and not expecting too much of a child with a disability.*

Teachers perceived the potential value of gaining experience working with students with MSD. Nigel said: “A teacher who’s had more experience with those
kinds of students would definitely be better prepared for meeting their needs”. He reported that, just in the 6 months or so that he had been exposed to his student with MSD: “I’m getting more comfortable with him and he’s getting more comfortable with me, so I’m not as nervous as what I was”.

One teacher talked about the benefits of her experience, skills and knowledge. Naomi noted the value of specific skills and knowledge she had acquired: “I had trained in sign language. I have an interest in that area so that was from my own experience. So I could actually communicate with them that way”. She had had experiences of effective, successful communication in mainstream settings: “From my experience the children that I have had contact with have been able to communicate with me their needs, so for example their toileting needs”. Naomi reported that part of her experience working with students with MSD involved working with therapists, and that she drew on knowledge gained from this experience in her current situation. She said: “I’m drawing more on my experience from speech pathologists for communication but I’m drawing on that knowledge from having had these students”.

Communication training and working with speech-language pathologists (SLPs) are discussed in greater detail in Parts 2 and 4 respectively. Betty and Dora, however, did not mention benefits arising from their 30 years teaching, during which they worked with a few students with MSD.

**Attitudes, Perceptions and Beliefs**

In addition, two teachers spoke about their attitudes, perceptions and beliefs about students with MSD. Naomi expressed the view that she treated these students “like any other child”, however they did require more support than other students. Phoebe agreed that students with MSD have the right to have their development and skills fostered.

**Relationship with the Student**

As a teacher who had had experiences of successful communication with students with MSD in a mainstream setting, Naomi spoke about the value of getting to know and building rapport with individual students. She believed that this was achieved through spending time interacting closely with children and with their families. She spoke about the importance of “transition”; spending time with individual children, for example at their preschool, before they came to school. She concluded that: “I think having that sort of relationship with them enables you to be able to better cater
She stated that as a result of spending time with one student before he started school: “I found it easy to communicate feelings and that sort of thing with him”.

However, teachers perceived that their lack of pre-service training in special educational needs and communication, and the limited availability of continuing communication education for mainstream teachers, were important obstacles that they faced in enhancing opportunities for communication for students with MSD in the school setting. As introduced in Part 1, this was reported as a major obstacle for these teachers, and so is discussed in further detail below.

PART 2: COMMUNICATION EDUCATION
Teachers reported their perceptions and experiences of the role of professional development in supporting them to include and communicate with students with MSD. They spoke about: (a) knowledge gaps, (b) lack of communication education, (c) practical experience, (d) mentoring, (e) visiting other schools, (f) external courses, (g) the role of support people, and (h) the internet. These aspects of professional development are summarised in Table 5.2. There were identified influences on communication education at a number of levels and so it is represented in Figure 5.2 as a bar crossing from Teacher Characteristics to Government Departments.

Knowledge gaps
Teachers reported that the inclusion of students with MSD had not been accompanied by professional development. Nigel said: “We’ve very much been told to try and interact with the student as best we can but we haven’t had any kind of special education training or anything of that nature”. Phoebe used almost identical words in the quote reported in Part 1. Dora noted that there was not enough preparatory support for staff, in terms of information about students, ideas and strategies for communicating, before students with disabilities came to the school. Teachers, therefore, identified gaps in their knowledge base. Nigel said: “There’s definitely a knowledge gap there for me as to what the student needs, for a mainstream school too”. Betty identified the need for more knowledge, ideas and strategies for facilitating communicative interaction. Nigel also identified the need for more knowledge about how to program for the student’s participation in the classroom. Nigel said: “If I could have more it would be to give me a better knowledge base
about what I can do with him in this lesson. I’d love to have some kind of special education professional development for secondary HSIE teachers”.

Table 5.2
Supports and Obstacles Associated with Communication Education (Stage 2)

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge gaps</td>
<td>Lack of professional development accompanying inclusion of student with MSD.</td>
<td>Limited content about students with MSD or communication in pre-service teacher education. Lack of continuing communication education.</td>
</tr>
<tr>
<td>Communication education</td>
<td>Limited content about students with MSD or communication in pre-service teacher education. Lack of continuing communication education.</td>
<td></td>
</tr>
<tr>
<td>Practical experience</td>
<td>Spending time working with other students with disabilities at the school.</td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
<td>Support with programming for student with MSD in particular lessons. De-briefing and personal support.</td>
<td>Limited opportunities for mentoring relationships.</td>
</tr>
<tr>
<td>Visiting other schools</td>
<td>Observing special education trained teachers in SSPs communicate with students with MSD.</td>
<td></td>
</tr>
<tr>
<td>External courses</td>
<td>Give teachers strategies and practical skills for communicating with students with MSD, eg. Makaton signing workshop.</td>
<td></td>
</tr>
<tr>
<td>Support people</td>
<td>Give teachers skills and knowledge about how to communicate with students with MSD.</td>
<td></td>
</tr>
<tr>
<td>Internet</td>
<td>Supports access to information for teachers in rural areas.</td>
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</tbody>
</table>

Lack of Communication Education

Teachers noted limited content about students with MSD, or communication, in pre-service teacher education. Naomi said: “In a general course at university you don’t get that specific training”. Teachers also reported a lack of continuing communication education. Nigel said: “I haven’t had anything specifically external to the school or professional development regarding how you cope with a student that’s at this level. It
has been very much on-the-job training, a bit of trial and error”. Hence, Nigel spoke about how he had gained some practical experience.

**Practical Experience**

Nigel described the benefits of spending time with another student at the school whom he described as less “severely disabled” than his student with MSD. He said:

*I’ve found that a very big learning experience in terms of understanding her needs and what she requires, her communication needs, such as she wears a hearing device and a microphone for the teacher. It gave me more insight into working with the more severely disabled student that we have here at the school.*

Teachers commented that there were other ways in which they could be supported to learn how to communicate with students with MSD.

**Mentoring**

Teachers perceived the potential value of regular opportunities for mentoring, in terms of guidance with programming for the student in the classroom, and personal support for themselves. Nigel said:

*If the mentor met with the teachers that deal with [student] it would perhaps give them an opportunity to say “where can I head, which direction can I go with him next week with that particular topic or this particular study area that we’re doing?” and look for suggestions, a bit of guidance which is what a lot of staff would really cherish.*

However, teachers reported no opportunities for such experiences. Phoebe reported being unable to access a mentor who could provide her with personal support. She said:

*As far as mentoring goes, it’s quite difficult to find someone that’s willing to support you as you, that has a vested interest in you as a person, as opposed to you as a teacher of a student with multiple disabilities, and I think there’s a big difference in that. Sometimes I feel that my personal opinions don’t count, so it’s quite difficult.*
Visiting Other Schools
Teachers perceived that observing practices in other schools, particularly special schools, would be helpful. Phoebe said:

*Now that I have pushed and complained and whinged for a term and a half, the hearing team, myself and teachers aide are going to another school to see what they are doing there for these students with multiple disabilities and severe language delays, and how the teachers there communicate with them, to see that we’re on the right track.*

External Courses
Teachers perceived that attending external courses would also help them to learn to communicate with students with MSD. Betty reported having attended a one day workshop that she said “*really opened my eyes*”. She described it as “*great*” because practical strategies were shared. She also commented that it would be valuable for the other staff to attend such an event. Phoebe also reported that she would be attending a two day Makaton signing (Brownlie & Bloomberg, 2011; Walker, 1993) workshop at the end of her second term teaching the student with MSD.

The Role of Support People
In addition to external courses, teachers also perceived the value of support people for providing mainstream teachers, particularly early career teachers, with knowledge about how to communicate with students with MSD. Naomi said:

*When the children come through they bring their entourage of O.T.s and speechies. The itinerant support people are making sure that as a beginning teacher you’re getting that information. So if it’s a child with a hearing disability that you’re able to sign to them to communicate. That’s basically how I learned. So really those support people are crucial.*

Internet
Finally, Naomi reported doing some research about the communication needs of children with MSD. She perceived that access to the internet made this task easier, particularly for teachers in rural areas. In speaking about the limited professional development available to support them to include a student with MSD, these teachers introduced factors located in their broader contexts. In Part 3, teachers’ perceptions
and experiences of supports and obstacles to communication in the school context, are presented in detail.

PART 3: INTERACTIONS WITH THE CONTEXT
The factors identified by teachers are presented under the two themes: (a) Mainstream Classroom Setting; and (b) School Context. The Mainstream Classroom Setting is represented in Figure 5.1 as the first circle surrounding individual students and teachers, and the factors located within this theme are summarised in Table 5.3. The School Context is represented as the next concentric circle in Figure 5.1 and the factors located within this theme are summarised in Table 5.4.

The Mainstream Classroom Setting
Teachers in this stage of the study taught their student with MSD in mainstream classrooms. Phoebe taught a kindergarten class. She reported having “seventeen 5-year-olds, excited, anxious, upset, and also [the student with MSD]”. Nigel reported teaching his student with MSD in a high school geography class. Teachers talked about both supportive factors and barriers to opportunities for communication in their classrooms, as well as benefits and negative impacts of inclusion more generally. They perceived that while there were both supportive factors and benefits for the student with MSD and his peers without disabilities, there was minimal interaction between them. Perceived barriers and negative impacts resulting from the class structure included balancing the needs of all students, and potential disruption. Finally, the teachers described difficulties including students with MSD in class activities, and perceived that there were minimal benefits for these students in mainstream classrooms.

Peers without Disabilities

Potential opportunities for communication. Teachers in mainstream primary classrooms perceived this context as presenting the student with MSD with enhanced opportunities for communication because of the presence of peers without disabilities as potential communication partners. Phoebe said:

I think him just being here is a great opportunity for communication because he’s getting to interact. The other kids want to hold his hand, they want to speak to him, they want to sit beside him. Him being in the mainstream setting
**just provides him with other students that want to talk to him and that want to be his friend.**

<table>
<thead>
<tr>
<th>Table 5.3</th>
<th><strong>Supports and Obstacles in the Mainstream Classroom Setting (Stage 2)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
<td>Supports</td>
</tr>
<tr>
<td>Peers without disabilities and communicative interactions</td>
<td>Potential opportunities for communication. Positive attitudes; acceptance. Opportunities for peers learning acceptance. Building communication skills in peers.</td>
</tr>
<tr>
<td>Class structure</td>
<td>Minimal interaction at high school.</td>
</tr>
<tr>
<td>Curriculum and instructional practices</td>
<td>Balancing the needs of all students. Disruption to class from vocalisations and activities of the student with MSD. Difficulty including the student with MSD and dependence on a learning support officer (LSO). Minimal benefits for the student with MSD.</td>
</tr>
</tbody>
</table>

**Minimal interaction.** However, teachers at the secondary school level reported minimal interaction between the student with MSD and other students, despite students’ positive attitudes. Nigel said:

*There’s not a lot of interaction between the mainstream students and him [student with MSD]. None of the other students seem to want to say even “hi” or “how are you going?” or even attempt the “high fives”, a big communication tool. I haven’t seen a lot of the other kids do that. No, the kids seem to keep to themselves a fair bit. So, there is that divide in that respect.*

Nigel perceived that, like the staff, the other students found it difficult to communicate with the student with MSD. He said:

*It is very difficult for other students who are high school students, early to mid to late teens. I suppose it’s very difficult for them to even relate with [student]. If teachers find that difficult then what chance does a student have.*

He also speculated that this may be due to the developmental stage of the other students, being teenagers dealing with their own issues.

**Positive attitudes of peers.** Nevertheless, teachers reported that the other
students without disabilities in their classes held positive views of the student with MSD. All the teachers described students as “supportive” (Naomi) and “accepting” (Betty). Nigel said: “The other kids in the class are very, very supportive of him and quite happy to have him in there. There’s no sort of derogatory comments or anything of that nature”.

**Opportunities for peers’ learning.** Teachers noted that there were benefits for students without disabilities arising from having a peer with MSD in their class. Betty said: “It teaches those [students] without disabilities more tolerance, more patience, more acceptance, more understanding. I think it works both ways. It’s good for everybody”. Teachers described the opportunity to teach students about their peer with MSD. Naomi stated: “I think it’s a lot about the way we put it across too. I think it’s your teaching of the other students as to how to accept that child”. Phoebe also recalled: “Initially they [other students] kept on saying ‘he’s a baby’. So we had to talk through all of that stuff, with the other children in the class”.

**Building communication skills in peers.** In addition to fostering positive attitudes, Phoebe and Naomi also spoke about the importance of teaching their primary aged students how to communicate with their peer with MSD. Phoebe said: “We say to all the kids ‘when he touches you, that’s like him talking to you, and letting you know that he wants to be your friend’”. Both teachers also spoke about teaching all the students Makaton signs (Brownlie & Bloomberg, 2011; Walker, 1993) in order to foster communication. Naomi said:

> We use the support teacher to work with all of the children so she could sign to the children as well. That way we’re all on the same wave length in being able to communicate with each other. That was really important.

Despite these supportive factors and benefits, teachers noted a number of barriers to communication, and negative impacts associated with the mainstream classroom context.

**Class Structure**

**Balancing the needs of all students.** Several teachers expressed a concern about allocating their time and effort equitably among all their students. Nigel said: “You try to spend as much time as you can with all the kids”. They were aware that their student with MSD needed more time but they had to balance this with the educational needs of the other students in the class. Phoebe commented:
It’s this thing within me that kind of tears me a bit, to think that I do need to give him time, but I also need to be fair with these little people. I feel guilty spending so much time on one student. I would say that out of 2 hours of release that I get weekly, I would spend at least an hour on one student, and I don’t think that’s equitable. I think that the time that I put in to this one little boy should be above and beyond what I’m given for my whole class.

At the secondary school level, teachers reported wanting to spend more time with the student with MSD, but having to spend more time with the other students to ensure coverage of the curriculum. Nigel commented:

I spend more time with the other students than I would spend with this student, and I would like to spend more time with him but it’s necessary for me to spend more time with the mainstream kids to keep them on the right track, maintain them as a whole within the bounds of certain behaviours, to get the work done because we’re looking at junior high school here. If I spend 30 minutes of the lesson with this student, rather than the other kids, then all hell would break loose with the others and that would be a severe distraction.

Nigel commented that he mainly had a “supervisory role” with the student with MSD in his classroom, “going and spending some time with him” where he could.

Disruption. Teachers perceived that having a student with MSD in their mainstream setting could be “distracting” (Phoebe) and “disruptive” (Nigel, Naomi) for them and the other students. Phoebe reported her own tendency to be distracted when teaching the other students letters and numbers: “We encourage him to make noises to communicate and it’s awfully difficult to be teaching when you’ve got someone yelling in the background”. She also noted that meeting the communication needs of her student with MSD was distracting for the other students in the class because his needs were at such a different level. She commented:

It’s quite distracting for the other kids because [student] is very much at the level of a 6-month-old. So we’re doing silly things, we’re playing peek-a-boo with him, we’re blowing bubbles on him to get him to track with his eyes. We’re giving him streamers to play with, and that’s very distracting for the other kids, because I don’t think they understand that, as much as [student] is the same as them, he’s also different. I think it’s a bit confusing for them.

Several teachers noted the tendency for their student with MSD to make noises at assemblies when students were expected to be quiet. Nigel said:
At school assemblies or whole school gatherings, due to the nature of his disability, at times he will be within a crowd and he’ll be attempting verbal communication, I suppose, but noises and that would disrupt moments of silence amongst the other mainstream students.

**Curriculum and Instructional Practices**

**Difficulty including student with MSD.** Teachers spoke about their difficulty including the student with MSD in their class, because of communication and learning difficulties. Teachers spoke about the consequent importance of having a learning support officer (LSO) in the classroom to work one-to-one with the student with MSD on their Individual Education Plan (IEP), or modified materials. Phoebe said: “It’s difficult to integrate him and it’s difficult to communicate because you can’t ask questions of him. Yes/no questions are about all you can ask and even then it’s the teacher’s aide that responds for him”. Nigel reported modifying materials that the LSO worked with to attempt to include the student with MSD in lessons and create opportunities for interaction. He said:

> I have the student for geography lessons so if we’re talking about rain forests the teachers’ aide will have picture books, or he has got this tool, I don’t know a lot about it, the teacher’s aide knows more about it, with a matching game, matching animals. He sees a flash up of an animal on the computer screen, he has to touch it. So basically what I’m doing with the other students on a lower level he’ll do something related to it and it might only be very narrow in terms of how close it is to what the other mainstream students do but it is something along similar lines to try and get that interaction with him.

They perceived that without this other staff member, the LSO, the student’s presence in the classroom would be disruptive to the other students. Naomi said:

> If I set up an individual education program, which I have done for this student, someone to be able to sit with him, manage him physically is really important for the other children too. You need that space where he’s just with his aide working on his own program. If you don’t have that one-to-one support, it affects everyone. That’s probably one of the major issues at the moment; that we don’t get enough support for each child that has a disability.

The role of the LSO is discussed in greater detail under the next theme.

**Minimal benefits for the student with MSD.** Several teachers expressed
uncertainty about the benefits of the mainstream setting for the student with MSD. Phoebe was the only teacher who gave a report that the student with MSD might be enjoying school, and this was a second hand report from the student’s mother: “His mum says he gets excited, that he smiles when he sees his school uniform on Monday, Thursday and Friday”. Despite potential opportunities for communication, Phoebe queried her student’s understanding of the school setting. Nigel spoke of his student being like “a visitor” because of his limited attendance. He said:

_The family want the child to be at the local school which is understandable but whether it’s necessarily to his maximum benefit is questionable. It feels a bit like he’s a visitor. He visits class every now and again, see how things go and that’s about the extent of what he’s getting out of his education here, at this point in time._

The crucial role of the LSO was introduced in this section. Teachers spoke further about the role of other people in the school context in supporting them to interact with the student with MSD.

**The School Context**

Teachers spoke about a broad range of factors in their school context. They talked about the perceived role of other adults in their school in supporting or hindering access to communication for students with MSD. These factors were: (a) staffing and learning support officers (LSOs), (b) the principal, (c) collegiality, and (d) attitudes of other staff. Teachers also talked about: (e) the physical environment/infrastructure, (f) resources, and (g) funding. In addition to these specific factors, teachers made general statements about their school context in relation to communication access for the student with MSD. They identified: (h) school culture, and (i) geographical location of the school. These are summarised in Table 5.4.

**Staffing and Learning Support Officers (LSOs)**

In addition to conducting the student’s IEP and meeting his other needs, teachers perceived LSOs as crucial to supporting them to communicate with the student in the classroom. Naomi said: “With more severe children we do that more through the teacher’s aide and using that aide to set them up with communication skills”.

Teachers noted that LSOs spent more time and had a closer relationship with the student, and often acted more in a teaching capacity than the teacher. Nigel talked about having an “informal channel of communication” with the LSO and consulting
Table 5.4

Supports and Obstacles in the Mainstream School Context (Stage 2)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning support officers (LSOs)</td>
<td>Supports teacher to communicate with student.</td>
<td>Lack of support for teacher.</td>
</tr>
<tr>
<td></td>
<td>Conducts IEP with student.</td>
<td></td>
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<tr>
<td></td>
<td>Meets student’s other needs.</td>
<td></td>
</tr>
<tr>
<td>The principal</td>
<td>Providing teachers with de-briefing, checking-in.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Managing students with MSD, co-ordinating services.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organising speakers for staff meetings.</td>
<td></td>
</tr>
<tr>
<td>Collegiality and communicative</td>
<td>Opportunities for staff to meet supports positive attitudes and</td>
<td>No opportunities for meeting with other teachers of</td>
</tr>
<tr>
<td>interactions</td>
<td>consistent approach to communication.</td>
<td>students with MSD.</td>
</tr>
<tr>
<td>Attitudes of other staff.</td>
<td>More positive attitudes with experience.</td>
<td>Limited opportunities to communicate with LSO.</td>
</tr>
<tr>
<td>Physical environment/Infrastructure</td>
<td>Ramps, changes in timetable and use of rooms, and appropriate desks for wheelchairs.</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>Limited access to, or knowledge about, resources to support the student’s participation and communication.</td>
<td></td>
</tr>
<tr>
<td>Funding</td>
<td>Inadequate funding for additional staffing and resources.</td>
<td></td>
</tr>
<tr>
<td>School culture</td>
<td>Culture of accommodating students with disabilities.</td>
<td>Limited preparation of staff for student with MSD.</td>
</tr>
<tr>
<td></td>
<td>Structural changes to infrastructure, procedures, timetables.</td>
<td>Teachers’ doubts about their ability to cater for needs of students with MSD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structural changes require adjustment on the part of the school community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Familiarity has not supported communicative interactions.</td>
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<tr>
<td>Student’s familiarity with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environment and other students at the school.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geographical location</td>
<td>Small, rural schools associated with supportive culture in terms of positive attitudes.</td>
<td>Small, rural schools associated with greater difficulty accessing support services from outside the school.</td>
</tr>
</tbody>
</table>

with her to problem solve. Nigel spoke about how “fantastic” it was to regularly have two LSOs in the room. Naomi, however, reported having inadequate LSO time in the classroom. She spoke about the implications, more in terms of potential disruption to
the other students, than limited opportunities for communication for the student with MSD.

**The Principal**

Teachers also reported varying experiences of the degree of support they received from their principal. Phoebe said: “I don’t feel that I get the support from the principal”. Other teachers perceived that their principal was supportive. Nigel reported that he could informally check out concerns and queries with his principal about what to do with his student with MSD. He said:

> If I have a concern or an issue, more about myself not knowing something, I’ll talk to my principal about “is this wrong where we expect him to be at? Is this wrong what we accept? Is this to be tolerated?” So it’s an informal channel of communication with my principal.

Betty noted that the principal organised a speaker who came to speak to the staff before the student with MSD transitioned to secondary. She also noted that this principal “manages” the students with disabilities at the school, including co-ordinating staff and support people from outside the school.

**Collegiality and Communicative Interactions**

Teachers also spoke about the role of opportunities to meet with other teachers, in supporting them to communicate with their student with MSD. However, they reported varying experiences of opportunities for such collegiality. Phoebe reported almost no opportunities for collegiality. She was the only teacher at her school that had a student with MSD in her classroom, and experienced an inability to find another teacher in a similar situation with whom she could debrief. She said:

> I’ve found that there’s no one else in the same situation as me. There’s no one with my lack of training that has a student with multiple and severe disabilities in their classroom that can speak to me on a personal level, on a de-briefing level.

She also reported limited opportunities to communicate with her LSO. She said:

> “Communication is really restricted between us because I’m constantly teaching and I don’t get any time in the day where I can actually sit down and discuss [student’s] progress and his goals and where we’re going next”.

Other teachers perceived that formal and informal opportunities for staff to meet to discuss student’s communication supported positive attitudes and consistent approaches to communication. Naomi reported having an ongoing dialogue between
staff members about her student’s needs, goals and progress. Betty noted that staff discussed outcomes they thought were important for the student with MSD, at programming meetings before he came to secondary, and monitored this regularly at staff meetings. Nigel, Betty and Dora spoke about the specific attempts they made to establish communication opportunities for the student with MSD at their high school. They stated that their main goal was for the student to use “high fives” for greeting and that all members of staff were expected to greet the student with MSD using a “high five” whenever they came into contact with him, and wait for him to respond with a “high five”. Betty commented that “it’s been a communication for staff actually” to take a consistent approach to using “high fives” with him.

Attitudes of Other Staff

Despite talking about collegiality, teachers spoke little about the attitudes of other staff at their school. Nigel noted that staff attitudes had become more positive, as their fears about how to interact with the student with MSD had eased. He said:

*I think it’s gotten more positive as times gone on. I think change has been the biggest fear for many of us, including myself, but as times gone on I think it’s been more accepted and has made the staff realise that things are going okay.*

Some of the changes experienced by the teachers at Nigel’s school also involved the physical environment of the school, discussed in the next section.

The Physical Environment/ Infrastructure of the School

Nigel, Betty and Dora noted that their secondary school buildings were multi-storeyed and that they did not have a lift or any way of getting their student with MSD upstairs. They noted that, therefore, there had been a lot of other changes made in the school to accommodate him and so that he could participate in classes with his peers. Betty and Nigel reported that classes usually held up stairs were held in downstairs classrooms for his classes. Nigel also noted that there had been ramps put in and changes made to the use of particular rooms and areas in the school. There had been a room dedicated for the student’s sleep times and an area in the canteen dedicated for his meal times. He also noted that there had been changes of desks in classrooms to accommodate wheelchairs. Nigel expressed the view that, while it was “fantastic” to be able to accommodate the student with MSD, the changes to procedure, timetabling, room movements and limited access to particular rooms and areas had been disruptive for the other students, as discussed in greater detail in the section below about the School Culture.
Resources
In contrast, teachers reported limited access to, or knowledge about, resources to support the student’s participation in classroom activities and opportunities for communication. Naomi said: “We haven’t really been offered any equipment here. I know at my previous school we did have access to boards and special desks but we haven’t been really offered anything this time around and we’re making do as we go”. Phoebe also reported having a lot of difficulty acquiring resources appropriate for her student with MSD. She said:

I pushed and pushed and pushed. It’s taken a term and a half to get $400 worth of funding to buy some developmental toys and resources for him. I do feel that I do a lot of banging my head against a brick wall over getting support for this little boy.

As previously quoted, Nigel reported limited knowledge about his student’s recently acquired assistive technology tool. He was, however, attempting to use it to include the student in classroom activities.

Funding
Finally, as Phoebe’s comments above suggest, teachers perceived that limited funding was an obstacle to supporting the participation and communication opportunities of students with MSD. Dora commented that “funding is definitely the most important issue”. Like Phoebe, Betty perceived that staff had to “fight”, not only to obtain any resources, but also additional staffing in the classroom. She said: “I would certainly add more funding. I mean it’s a ludicrous situation that you have to fight for everything that you get because with more funding you get more support and I think you need more support”. Phoebe expressed her resentment at not being reimbursed for resources that she had purchased, with her personal money, so as to be able to engage the student in activities and opportunities for communicative interaction.

School Culture
Teachers spoke about the general capacity of their school to support communication opportunities for students with MSD.

Preparation to cater for the needs of the student with MSD. As mentioned in Part 2, teachers reported limited preparation of staff for programming and communicating before the student with MSD came into their classrooms. Phoebe said:

I think that having known that this little boy was coming to our school last year and that I was going to be the kindergarten teacher, all that [eg.
attending a Makaton signing course] should have been done prior to [student] coming into my classroom. I also think that the teacher aide should have had more up skilling. We had transition meetings with Departmental people but I had actually no communication training and development. So it was quite overwhelming really; having a person that doesn’t walk and doesn’t talk and can’t eat.

Betty recalled that the only attempt to help prepare staff before their student with MSD came to the secondary was an invited speaker at one of their staff meetings. She recalled:

*We had some one that came in from another school and did a half an hour session at our staff meeting. They had a similar student to [student] at their school and that was probably to alleviate a lot of our concerns. I think people were quite nervous before he came as to having him in the rooms. Even though he had been in a primary room, it’s very different once he had to move around. Previously one teacher would be aware of his toileting needs and every thing else. Well then all of us needed to be and so she went through that with us.*

She also recalled that additional programmed transition occurred to help prepare the student with MSD. Betty reported that at the end of year 6, the student came into year 7 classes “once a week for about five or six weeks”. She noted that “*that helped every body, it certainly helped the student*”. Teachers expressed varying views, however, about the ability of their school to cater for the needs of students with MSD.

*The ability to cater for the student with MSD.* Teachers commented that while they had only one student with MSD currently at their school, there may be more students coming to the school in the near future. Nigel commented that more needed to be done to cater for the needs of these students. He said: “*The school is getting more of these types of students. It is getting harder to cater for them and I think something does need to be initiated there to make it more worthwhile for these children that are coming*”. Nigel expressed uncertainty about the ability of his school to cater for the needs of their student with MSD. He said: “*I’m not sure if our school is set up to cater for those students of those abilities, to give them the best quality of learning here*”. He commented that the special school (SSP) in their area would better cater for the educational programming and communication needs of the student with
MSD. He said: “We do have a special education school in the area and that’s already sort of set up, it’s got a program like that”.

Betty and Dora, however, perceived that there was a long standing culture of accommodating students with disabilities at their school, in terms of enabling access in the physical environment. Betty said:

_I think it’s a culture within our school that has been there for a long time, because I remember 20 years ago, we had students that would have been at [SSP] then. At that time there were very few mainstream schools that had students with disabilities. We had, for quite some time, a fellow in a wheel chair and it was no big deal. We just changed our timetable for him every year so that he never had to go upstairs. When you think about it, that’s actually quite major, and it never was, and we did the same with [student]. So I think we’ve had it in our community, in our school community for quite some time._

They currently had only two students with severe disabilities attending the school, and Nigel reported that the changes to infrastructure, procedures and timetabling, described above, had required adjustment on the part of the rest of the school community; staff and students. Nigel said: “It does affect the culture of the school. There are a lot of changes made to the school to accommodate this particular student”. He commented that while these changes had been “great” they have also been difficult.

_Familiarity with place and other students._ Nigel, Betty and Dora did note that an advantage of the student attending the local central school was his familiarity with the place and other students. Nigel said: “With the central school situation, they come through the infants department to primary. I think that’s helped with transition across [to secondary] because he’s familiar with the place, he has siblings at the school also. That’s probably helped the student”. Nigel followed this comment, however, by reiterating the view that this familiarity had not influenced the amount of communication between the student with MSD and the other students. He said:

_All that it probably has done is create a greater awareness of the others around him, knowing that he is there and vice versa. In terms of interaction, I don’t think he has a great deal of interaction with the other kids._
Geographical Location

Teachers also spoke about how the perceived benefits and negative impacts were associated with the size and geographical location of their schools. Naomi said: “I guess there are both sides of the coin. Bigger schools get funding support but we have more sort of emotional support for that child”. Several teachers spoke about the supportive culture, resulting from positive attitudes, and the culture of accommodating students with disabilities, as being associated with the size of school. Dora said: “I know the parents of the child that I work with based it on size; that [school] is not a huge big school but it’s just a nice size for a child with special needs to come in”. While Naomi spoke about this culture existing in a small school, she also perceived that it was consciously and actively created by staff. She said:

It’s really a family environment in a small school. Everyone’s accepting of our little person and really nurturing and encouraging and I think that’s instilled by us anyway. We’ve talked about it as a staff as to how we’re going to accept this child into our school and how we would like the other children to accept this child.

Betty perceived that the “sense of community within the school” was the result of students in a small school having opportunities to develop friendships with students of different ages. She noted that: “That gives you the chance to interact on a different level and that’s why our kids have great inter-personal skills”.

As Naomi mentioned above, teachers also perceived that a disadvantage of small, rural schools was greater difficulty accessing support from the state education system and professionals outside the school. Naomi said: “I think we find it a little bit difficult to access support being in a smaller school rather than being in a larger school where there are more of those sorts of children”. Speaking about SLPs, Naomi said: “I think they are probably not willing to spend that time in a small school setting. They’d rather go to a big school where there are maybe four or five with needs rather than just one student”. She also noted that support from the state education system “just seems to dwindle when it comes to smaller schools”. Teachers’ perceptions and experiences of the role of other people outside the school, such as SLPs, as well as the state education system and other agencies, are presented in the next part.
PART 4: OTHER PEOPLE OUTSIDE THE SCHOOL CONTEXT

This group of teachers also talked about supports and obstacles associated with: (a) the parents of their students with MSD; (b) other professionals in their geographical region or area, such as visiting specialist teachers and SLPs; and (c) government departments, including the state education system. These are represented in Figure 5.1 by the two concentric circles around School Context/Culture, and are summarised in Tables 5.5 and 5.6 respectively.

Geographical Region or Area

Table 5.5
Supports and Obstacles Located in the Geographical Region or Area (Stage 2)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home context.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families’ characteristics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Close contact for exchange of information about student.</td>
<td>Lack of support for enhancing student’s communication.</td>
</tr>
<tr>
<td></td>
<td>Accessing support from outside the school, eg. SLPs.</td>
<td>Communication book not used to communicate with student.</td>
</tr>
<tr>
<td>Visiting specialist teachers</td>
<td>Development of the student’s communication skills, and creating opportunities for participation in activities and communicative interactions. Educational role; developing teacher’s communication skills, eg. signing Including student with MSD in the classroom. Programming and planning lesson content. Understanding of mainstream classroom. Collaborative relationship.</td>
<td>Reduction in frequency of visits to school. Insufficient support for students with MSD (who do not have hearing impairments).</td>
</tr>
<tr>
<td>Speech-language pathologists and other therapists</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited access to SLPs. Unsupportive input; too much information at once. Little collaboration; visits occurred outside the classroom. Lack of useful, specific feedback.</td>
</tr>
</tbody>
</table>

Home Context

Teachers reported varying experiences of contact with their student’s parents.

Teachers perceived that the amount of contact they had with families depended on
characteristics of individual families. Betty noted that some families did not have the “resources” to support their child’s development. She said:

We presume that the parents of students with disabilities are going to be supportive and very much involved in their schooling but I think it depends very much too on the family, the support, including the resources, of those parents. I think that would determine how you communicate when you involve parents.

Naomi agreed that: “Background has a lot to do with their ability to communicate too”.

Lack of support from the home context. Phoebe perceived that the parents of her student with MSD were not interested in his development and communication needs. She said:

I feel that I don’t get much support from the home environment. It isn’t particularly an opportune environment. I don’t think they are particularly concerned with fostering [student’s] development. So I think a lot of my concerns in that area fall on deaf ears.

She reported that her student’s mother did not co-operate with requests to take action to support his skills development. She said:

We’ve been asking for an eating programme and we’ve been asking and asking and asking for mum to go along to this evening and learn about starting incorporating lumps into his food and we get met with “oh if I get around to it. I don’t care”. It’s not done. It frustrates me. That’s a big obstacle.

Close contact with parents. Other teachers, however, spoke about having close contact with parents. Naomi said: “The children with needs that I’ve had, I’ve had a lot of close contact with their parents”. Betty and Dora also spoke about having constant contact by phone and via communication book. Betty said:

When the student began in year 7 it was constant phoning forward and back. That was the way we worked simply because that way we could talk things out. Communication books are terrific because you can write things down and that can be double checked.

Teachers noted that this constant contact was for the purposes of exchanging information about the student, for example his personal care needs, and to help plan excursions so that he could participate.
Dora acknowledged that, therefore, most of the communication actually occurred through the parents. She said: “A lot of the communication is through the parents for the kids. So we work with them. It’s, [communicating with the student] hard”. Dora and Betty also acknowledged that they were not using the communication book, used with the parent, to communicate with the student with MSD, although this had been done at one point when he was in primary school. Dora recalled that the parents:

Used to send in little snippets of what had happened at the weekend just so it made it easier for me to communicate with [student]. To have something, coming from home, to start to have a conversation with him did help.

The role of parents in accessing support. Finally, teachers perceived that parents had an important role in accessing support, for example SLPs, from outside the school, both before students started school and throughout their school years. Naomi said: “Some parents are maybe not as diligent in looking for that help before school. If we are trying to access that support later on then it’s perhaps a little more limited”. Teachers spoke about the role of this support from outside the school.

Visiting Specialist Teachers

Developing student’s communication skills. Two of the teachers spoke about the valuable support they received from an itinerant support teacher for hearing (ISTH). They noted that the ISTH supported the development of the student’s communication skills, and created opportunities for participation in activities and communicative interactions. Phoebe said:

We have great support from the itinerant hearing because one of [student’s] disabilities is his hearing, he has severe hearing loss. So with access to their support, we are trying to teach him to communicate using his eyes and using simple Makaton signs. So they are our alternative forms of communication.

She also said: “She’s [ISTH] the person that has given [student], I feel, the most opportunity to create the smile moments. She’s all about little steps and achievements”.

Educative role and including the student with MSD. Teachers also reported that the ISTH had supported them to: (a) understand how to communicate with their student with MSD, (b) develop communication skills such as signing, and (c) include the student in the classroom. Naomi said:
The itinerant support people, when they first come in, make you aware of the student’s needs and obviously communication is our primary source of them being able to learn, so they almost set you up for making sure that you’re going to be able to communicate well, that you’re able to sign to them to communicate to them.

Naomi emphasised the important role of the ISTH in supporting the student’s participation and access to communication in the classroom. She said: “Having IST people come in and work with myself and the student with hearing disability is really essential. They come in and sit down and help transfer information from me to him”.

The educative role of special teachers was introduced in Part 2. Teachers reported that the ISTH worked with the student, with the LSO and/or teacher present, showing them what to do, and that this was useful. Naomi commented that the ISTH’s input was “practical”. She also said:

She works with [student] one on one with the teacher’s aide there. It’s kind of a bit of a group thing and she’s invited me into her sessions as well and she’s shown me the activities she does. She lets me see the recording. She comes to me and says “oh he’s achieved this today. Isn’t that fantastic” and then she shows it to me. She lets me see what he’s learned and what he can do.

**Programming and planning.** Teachers also noted that the ISTH supported them with programming, planning, and ideas. Naomi said:

Every chance I get with my support teacher we’re programming and saying: “This is working, this is not working, let’s try this” or “I think we’re up to the next stage now”. So we’re always evaluating and re-evaluating. They are so important.

Phoebe also reported that the ISTH she worked with supplied her with resources and advocated for her professional development.

**Understanding of mainstream classroom.** Phoebe and Naomi also perceived that the ISTH had an understanding of the demands of the mainstream classroom context. As mentioned in Part 3, they reported that the ISTH worked with all the children in the class, teaching them simple Makaton signs (Brownlie & Bloomberg, 2011; Walker, 1993). Phoebe said: “She comes in and works with me in the classroom with the little kids teaching them signs ‘boy’, ‘girl’, ‘stand’, ‘sit’; things like that”. Phoebe also reported that the ISTH would take her class and release her to talk to therapists when they arrived at the school. She commented that: “I think she has a
good understanding of what it is to have a child with communication and language issues in a mainstream classroom”.

**Collaborative relationship.** Phoebe spoke about the importance for her of the ongoing relationship that she had with the ISTH. She said: “She’s the one person that has been a constant support for me in the classroom. She’s really kept me sane in this whole process”. Phoebe commented that she valued the opportunity to spend time talking with ISTH about her ideas, perceptions and experiences, be listened to and have issues explained clearly. Naomi reported that this support used to be frequent but “it’s just dwindled away. Now we might see our support teacher once every couple of weeks. Those support people are crucial especially now I don’t have that support as much here”.

**Insufficient support for students with MSD.** Teachers spoke about insufficient support from outside the school for themselves and their students with MSD. Nigel, Betty and Dora reported having only two people coming to the school; the ISTH and the integration officer. They noted that an ISTH comes to their school regularly to support a student who has a hearing impairment. Nigel said: “The female student we have here regularly has an external member of staff that comes in and spends a lot of time with her and I believe that’s a huge benefit to the student”. However, they perceived that their student with MSD was not receiving similar support. Nigel said: “I’m not certain whether there’s that kind of facility with the more severely disabled male student that we have. I may be unaware of it”.

**Speech-Language Pathologists (SLPs) and Other Therapists**

Teachers also perceived that they received limited support from SLPs and other therapists. They reported that this was due to: (a) limited access to SLPs, and (b) unsupportive input when therapists did come to the school.

**Limited access to speech-language pathologists (SLPs).** Naomi talked about knowledge and skills that she had gained through working with a SLP in a kindergarten class at a previous school. However, she reported limited access to such support at her current school. She said: “We don’t have access to that because I know that speech pathologists are hard to access”. Betty, Dora and Nigel made no mention of SLPs.

**Unsupportive input.** Phoebe reported experiencing the limited input she did receive from a SLP and other therapists as unsupportive. She reported that initially she felt “overwhelmed” by “the entourage” (Phoebe, Naomi); too many people giving
her too much information at once, and making what she described as “sweeping statements”. She recalled:

The very first day of school seven people from [non government organisation] knocked on my classroom door and just plopped themselves in the middle of my classroom and started speaking about OT things, and splints, and Big Mack switches, and augmented communication systems, and PECS pictures, offering choices to [student], and I was just so overwhelmed by these people telling me what I must do. I was actually told by an individual: “You need to do more” and this was the very first day of meeting this little person.

Little collaboration. Phoebe reported that the limited input from the SLP had not been useful because the SLP had not involved her in the intervention. She noted that the SLP had not arranged an appropriate time to collaborate. She said:

So since having [student] at school we’ve had three speech visits that really I felt I got nothing from. These visits happen outside the classroom while I’m teaching because I’m not provided with the time to go and sit and speak with them. I feel that I need to stand my ground too and say: “If you would like to speak to me please make a time that’s appropriate with me”. I think they need to respect that there are other students in this class and that’s what I feel they lack.

Lack of useful, specific feedback. Finally, Phoebe reported experiencing “frustration” at the lack of useful, specific feedback from therapists about how she was interacting with her student with MSD. She lamented:

What do you do on that first day when people say you’re not doing enough and then you try to do heaps and you don’t get anything back? It’s not that I want gratification from other people. I just want to know that I’m on the right track. I just want someone to say: “That’s great for [student] because da-da, da-da, da” or “why don’t you try this now” instead of being told “you’re not doing enough” or “you’re fine now”.

Apart from teachers’ comments about the individual professionals that they worked with, they also located factors at the level of Government Departments.
Government Departments

Teachers talked about supports and obstacles associated with both the state education system and other departments and agencies responsible for providing SLP and other services.

Table 5.6
Supports and obstacles Associated with Government Departments (Stage 2)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>State education system</td>
<td>Integration officer visits school regularly.</td>
<td>Difficulties obtaining support with funding.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited specialist staff to support students with MSD in mainstream settings.</td>
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<tr>
<td></td>
<td></td>
<td>Limited support for teachers including students with MSD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not facilitating skill building or networking for teachers who are including students with MSD.</td>
</tr>
<tr>
<td>Other departments and agencies employing SLPs</td>
<td></td>
<td>Limited services to schools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inconsistent provision of services to different schools.</td>
</tr>
</tbody>
</table>

State Education System

The integration officer. Betty and Dora reported that since the beginning of the year they had an integration officer coming to the school once a week. Prior to this they had seen the integration officer infrequently, for meetings. They perceived that this service was supportive. Dora said:

*She goes around and has a look at the children working in their environment. She talks to the teachers to see if there are any special resources that the child may need to help with their learning. If we need a lap top she can get that from District Office. She helps out where she can with little things that the schools needs.*

Dora reported receiving regular visits “because there’s quite a few special needs children here” in addition to the one student with MSD. However, she also reported that the integration officer’s time was limited: “*She’s only here on a Thursday morning. She’s got a huge workload. It’s a lot to get around in the time that she’s allocated for our school but she is great, she’s very helpful*”.

Difficulties obtaining support. Having previously also worked in a rural central school Naomi perceived that there was less support from the state education system for students with MSD in smaller schools. Phoebe used metaphors such as
“closed doors”, “falling on deaf ears” and “being given the run around” to describe her experiences of the responses from Departmental staff to her requests for support. She said:

*I feel that the system has given me the run around. I’ve knocked for support and I’ve just got the run around. There have been many times where I’ve been upset with the system. It feels like my complaints, concerns have fallen on deaf ears at a departmental level.*

She gave an example of contacting a state education system office regarding funding and being met with:

*They said: “You have to speak to so and so about getting funding for that” and you speak to so and so and they say: “Oh no, they’re on leave you have to speak to so and so” and then it’s: “Oh no, that’s not my area you need to speak to so and so” and then it’s “Oh no, you have to get something else from someone else”.*

Despite positive reports of the support provided by ISTHs, these teachers stated that the state education system provided too few specialist staff to support teachers including students with MSD.

*Limited specialist staff to support students with MSD in mainstream settings.*

Teachers perceived limited avenues and resource scarcity in terms of specialist support through the state education system, for them, and their students with MSD in the mainstream setting. Phoebe said:

*When I first filled out the access request form, “hearing” was the only little box that [student] fitted into. It was the only box that I could tick for him and I thought: “I need some support. I’m just going to try”.*

As mentioned in Part 3, Nigel commented that it would probably be more efficient in terms of resource allocation for his student with MSD to attend a SSP within travelling distance where specialised staff were centralised. He said: “*If you brought someone in [here] are you taking resources from elsewhere to scatter them in to school. It’s a finite resource pool and you’d be dragging them from somewhere else to be in this situation*”. Teachers perceived, however, that input from such staff would be beneficial for supporting students with MSD in the mainstream setting. Nigel commented that the state education system should give further consideration to staff needs if it is a priority to accommodate students with MSD in mainstream schools.
Limited support for teachers including students with MSD. Betty commented that visits to the school from the integration officer were not enough support for individual teachers. Phoebe perceived a lack of support from the state education system for her as an individual, and not only as a teacher including a student with MSD. She said:

When you do try to have a personal relationship with some of the people higher up in integration and in special ed., it’s like they don’t want to know about you personally. They just want to know about the codes that the child has as their disability: “Are they an F1 something or other intellectually”. They don’t care about you. They don’t want to talk to you about how you’re feeling.

Skill building and networking. In addition to comments reported in Part 2, other teachers perceived that the state education system was not facilitating skill building or networking among teachers who had students with MSD in their mainstream classrooms. Betty noted the need for the state education system to provide opportunities for: (a) workshops, (b) networking with other teachers who included students with MSD, and (c) information sharing, including informing teachers about useful web sites. She noted that this would be useful:

So that we can look at all the different strategies, share all the resources that are out there, [for example]: “This is a great web site; I made this; borrow this because this kid has got too old now, I’ll have it back at the end of the year”. We all do our own thing. There doesn’t seem to be on a departmental level enough co-operation, co-ordination. We could do it a hell of a lot better.

Teachers also made comments about lack of support associated with other government departments and agencies.

Other Departments and Agencies Employing Speech-Language Pathologists (SLPs) Teachers spoke about the limited and inconsistent provision of SLP services to students with MSD at their schools.

Limited services to schools. Teachers perceived that it was difficult to access SLP and other therapy services provided in the school setting. Phoebe said: “You have to jump through so many hoops to get it, or it costs extra and the family just can’t accommodate for that”. The SLP service Phoebe had experienced was delivered through a NGO. She noted that the intervention period lasted only 6 months and the SLP visited the school only a few times during that period. Her student’s intervention
period had finished. She commented that he would go the bottom of the waiting list and have to wait until the following year for further support.

When asked, Nigel, Betty and Dora reported that they had not had SLPs or other therapists come into their school, and perceived that this service was not accessible for the high school. Betty said: “I think if we could get it we would have accessed it by now because I know we’ve had speech pathologists come in when the kids are tiny but I know that certainly doesn’t come in through high school”. Betty and Dora recalled that a service had been received when the student with MSD was in the primary part of the school. Like Phoebe’s experience, they recalled that this service had been brief. Dora said:

When this child was in primary school the OTs used to come out and just give me some different ideas but they would only be there for such a short time.

They’d rush in and just give me a couple of ideas and then they’d be gone again. That was really early when he was quite young.

Nevertheless, these teachers unanimously expressed that SLPs and other therapists could support them to communicate with the student in the classroom.

Inconsistent provision of services to schools. Based on her experience, Naomi compared the provision of SLP services to students with MSD at different schools. She noted that she had not received a service at her current small, primary school. However, at the central school where she had previously also taught a kindergarten class, she reported receiving a SLP service every year for students with a variety of needs. In particular, she reported receiving a lot of support for a student with MSD. She said: “We had a lot more support for that student. We had occupational therapy. We had speech pathology that came with him and stayed with him”. Naomi expressed uncertainty about reasons for the experienced differences in service provision between her previous central and her current school. She said “I’m not sure why there would be a difference because that was a rural school as well”.

However, as previously mentioned in Part 3, she perceived that it was more difficult to access a SLP service at a small school where there was only one student with additional needs compared to a larger school where there may be more such students. She also speculated that it may be due to lack of funding: “I guess that lack of funding presents a big problem because the entourage doesn’t come through. It’s a different case this time around”. Naomi, Betty and Dora all perceived that it was up to parents to arrange a SLP service for their child with MSD. Dora said: “I think that’s
just something that parents do off their own bat”. In Part 3, teachers’ comments about their school cultures and the inclusion of students with MSD in mainstream education, were reported. This part reported their comments regarding the limited services provided from outside the school. These introduce teachers’ perceptions about the influences of the broader community on the student’s access to communication in the mainstream school setting, presented in the final part of this chapter.

PART 5: SOCIETAL FACTORS

Teachers expressed different views about the extent to which social inclusion occurred at the school and in the broader community. They also related differing societal attitudes towards people with disability. These are represented by the outermost circle in Figure 5.1, and are summarised in Table 5.7.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social inclusion</td>
<td>Programming at school for social inclusion</td>
<td>Social inclusion not occurring at school. Student attends segregated activities outside school. Student’s needs not being met in mainstream educational setting.</td>
</tr>
<tr>
<td>Social discourses about disability</td>
<td>Local communities accepting of students with MSD. Local school viewed as an option for students with MSD to attend.</td>
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</table>
communicative interactions are much less likely to happen. These teachers perceived that educational inclusion offered more opportunities for interaction than did segregation.

Like the views above, Nigel’s different views about social inclusion and influences on communicative interactions for the student with MSD, were introduced in Part 3 of this chapter. Nigel perceived that the student with MSD was not being socially included in the mainstream educational setting. He noted that apart from the lack of interaction between the student with MSD and other students at school, this student attended segregated activities outside school. Nigel said: “I do believe that external to the school he has time with other students of like ability. I think that's the case with external activities but not within school”.

Social Discourses about Disability
Nigel also expressed the view that, without specialist support, the needs of students with MSD were not being met in the mainstream educational setting. He said:

*I think you’d have a special education unit in each school. If that becomes a venture which is too costly then you have a special education centre that is located within a schooling area which I believe is what we have now in [SSP] to accommodate these kinds of students and then they go to that school. I don’t think you have a school that doesn’t have a special ed. unit and you’re then having to accommodate students with severe disabilities because that’s not beneficial for the student, which is the main priority, nor the school, the staff.*

In contrast, Betty and Dora perceived that the “great reputation” of their school “in the local community” made it an option for students with MSD to attend. These teachers perceived that their small communities were accepting of the student with MSD.

PART 6: SUMMARY
This chapter has presented the perceptions and experiences of mainstream teachers communicating with students with MSD in mainstream educational settings. Like their colleagues in segregated settings they identified a broad range of factors perceived to support or hinder their efforts to interact with the student with MSD, and the access to opportunities for communication more generally. This chapter, however, has presented findings specific to experiences of teachers attempting to include
students with MSD in mainstream educational settings in regional and rural areas. This chapter has highlighted that although these teachers were all in mainstream educational settings, they had varying experiences of school culture and the degree to which this supported students with MSD. Even within the same school, teachers expressed different views about access to communicative interactions for students with MSD. This chapter also presented reports of limited access to support from outside school settings.

In the next chapter, the perceptions and experiences of speech-language pathologists (SLPs) are presented. As professionals who work across different school settings and in the home context, they provide views about different school cultures and the supports and obstacles they observe in different schools, as well as home contexts, to communicative interactions for students with MSD. They also provide different perspectives regarding collaboration with teachers, as well as the provision of SLP services to students with MSD in different school contexts, in metropolitan, regional, rural and remote areas.
CHAPTER 6
STAGE 3 RESULTS: SPEECH-LANGUAGE PATHOLOGISTS IN METROPOLITAN AREAS

In this chapter, results are presented for speech-language pathologists (SLPs) in metropolitan areas supporting students with MSD in predominantly special schools (SSPs) and support units in mainstream schools (SUs). Only two out of eight SLPs reported experiences supporting students with MSD in mainstream classrooms. This chapter is divided into six parts reflecting similarity to Chapters 4 and 5 in themes presented, but with some differences and additional findings for this group of participants. These themes are represented in Figure 6.1. Part 1, Personal Journeys, includes SLPs’ perceptions of their own characteristics, as well as those of their students and their teachers. In Part 2, Professional Development, SLPs’ experiences of professional development, as well as their perceptions of teachers’ access to communication education are presented. Because this chapter gives the perspectives of SLPs as “Other People Outside the School Context” (the title of Part 4 in Chapter 5), there is an additional part in this Chapter, Part 3, entitled Communication Intervention and Collaboration. This part includes the SLPs’ emphasis on their work in supporting students with MSD, and the centrality of collaboration. This collaboration was not only with teachers but also with families. So this part includes issues raised about family characteristics and the home context. Part 4, Interactions with Context, includes SLPs’ perceptions of their own offices and the classroom and school contexts in which they work. Part 5, Governmental Level, includes data about the influence of the organisations employing SLPs and teachers beyond their immediate contexts of office and classroom. Finally, Part 6, Societal Factors, encompasses findings about community attitudes and discourses about social inclusion. The categories of Time and Change are represented in Figure 6.1 as crossing multiple levels, and their effects as supports or obstacles are discussed in different parts of the chapter. Each part also contains tables summarising the factors and how they act as supports and obstacles. The chapter concludes with a summary.
Figure 6.1 Systemic factors identified by speech pathologists in metropolitan areas
PART 1: PERSONAL JOURNEYS

The speech-language pathologists (SLPs) ranged from 6 months to 7 years in experience working with children with MSD. The “early career” therapists described communicating with students with MSD as “confronting” (Sarah), “challenging” (Sarah, Bonnie), “difficult” (Bonnie) and “frustrating” (Keira). They perceived a number of reasons for this: (a) their own lack of experience (Sarah, Bonnie), (b) the complex communication needs of the students (Keira), and (c) the nature of communication intervention, involving collaboration (Sarah). They reported that, consequently, they required considerable support from colleagues. These factors are described in greater detail throughout the chapter.

Other SLPs talked about their “rewarding” (Lara, Louise) and “enjoyable” experiences communicating with students with MSD. This occurred when there was a “breakthrough” (Lara) or “achievements” (Louise); when an intervention was implemented that produced a change in the client so that he or she experienced more participation and/or effective communication at home or in the classroom (Lara, Louise). Lara said: “That moment when it actually works is pretty exciting, you can say all that hard work was worth it”. The more experienced therapists (Louise, Alice) reported enjoying the challenges associated with working with students with MSD.

The SLPs identified supports and obstacles at a number of levels, beginning with the characteristics of students with MSD, their own characteristics, and those of teachers. These are represented by the three innermost circles in Figure 6.1 and are summarised in Table 6.1.

Student Characteristics

Four SLPs identified characteristics of students with MSD as obstacles to supporting communication. They spoke about the “slow process” (Keira) of getting to know these students and building rapport (Bonnie, Keira). They commented that it took them a long time to learn how these students communicated (Bonnie, Keira).

Idiosyncratic Forms of Communication

Laura reported difficulty interpreting the non-verbal and idiosyncratic forms of communication used by students with MSD, such as facial expressions, body movements, and their use of the environment. She said: “Sometimes I scratch my head, thinking I wonder what triggered that”. She also noted that it can be difficult to teach others how to interpret “those small signs and changes in their behaviour”.

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Table 6.1  
**Supports and Obstacles at the Level of Individuals (Stage 3)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ characteristics.</td>
<td></td>
<td>Idiosyncratic forms of communication; difficulty interpreting. Difficulty engaging students in communication. Challenging behaviours.</td>
</tr>
<tr>
<td>Speech-language pathologists’ characteristics</td>
<td></td>
<td>Lack of experience, knowledge and skills. Limited collaborative skills. Being younger than teachers.</td>
</tr>
<tr>
<td>Teachers’ characteristics</td>
<td></td>
<td>Attitudes, perceptions and beliefs: Limited understanding of professional role.</td>
</tr>
<tr>
<td>Positive attitudes, perceptions and beliefs: Not underestimating parents’ and teachers’ knowledge of children.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers’ characteristics</td>
<td></td>
<td>Lack of enjoyment, interest or affinity. Tiredness, “burnout”. Experienced teachers can be resistant to new ideas. Inexperienced teachers need more support and education. Limited knowledge about disability, communication and AAC.</td>
</tr>
<tr>
<td>Enjoyment, interest and affinity for working with students with MSD. Experienced teachers need less support. Inexperienced teachers can be open to learning and implementing communication strategies. Knowledge about communication and AAC.</td>
<td></td>
<td>Negative attitudes, perceptions and beliefs: Too low or too high expectations of students. Not perceiving communication with student as important. Resistance to implementing communication strategies. Negative perceptions of SLPs as: “judging” or “scrutinising” teachers; as responsible for fixing students’ communication or as unsupportive and obstructive.</td>
</tr>
<tr>
<td>Positive attitudes, perceptions and beliefs: Realistic expectations of students. Perception of role as a communication partner. Willingness to implement communication strategies.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Engaging Students in Communication**

SLPs noted that it could also be difficult to engage students with MSD in communication. Laura commented that: “You have to use anything and everything”, such as exaggerated facial expression, body movements and objects in the environment to engage the student’s attention, interest and motivation to communicate. She described “putting extra expression and energy into my communication with these children just to try and get some sort of communication happening with them”. Even then, Keira reported difficulty knowing whether she was
making a difference to a student’s communication because of the “slow progress” with “little baby steps” (Keira).

**Challenging Behaviours**

Some students with MSD were also reported to have challenging behaviours. Alice noted that “the families and carers, including teachers [of these students] often seem to be in that real coping mode” and seem less able to implement communication strategies. She perceived that it is less challenging to implement communication strategies for students with MSD who use wheelchairs than students who are mobile and displaying challenging behaviours. In addition to the characteristics of students with MSD, SLPs talked about their own characteristics in supporting the communication of students with MSD.

**Speech-Language Pathologists’ (SLPs) Characteristics**

SLPs talked about their: (a) experience, knowledge and skills; and (b) attitudes, perceptions and beliefs toward their role, and that of teachers and parents.

**Experience, Knowledge and Skills**

The “early career” SLPs (Sarah, Bonnie) perceived their lack of experience with students with MSD as their biggest obstacle to supporting the students’ communication opportunities. They also perceived their lack of experience with high tech augmentative and alternative communication (AAC) systems (Sarah) and collaborating with teachers (Sarah, Bonnie) as problematic. Sarah and Bonnie noted that they needed more time than other SLPs because they undertook “more trial and error” (Sarah).

**Collaboration skills.** Whilst collaboration is discussed in detail in Part 3, it is mentioned here because SLPs commented that their experience and skills in collaboration were important factors. Whilst Sarah perceived that she did not yet know how to collaborate effectively, Louise and Lara related experiences of learning skills for collaborating. Lara said:

*I think you learn from your mistakes how to communicate with teachers and how to support teachers, like being flexible and being able to adapt how you offer a service to different teachers, based on their learning style, based on the environment that they’re working in, based on the client’s needs.*
Louise described learning useful collaborative skills, from working with a “really difficult teacher”. SLPs, therefore, viewed gaining experience as a major support to working with students with MSD (Sarah, Bonnie).

*Age difference.* Lara also commented that being a “younger” professional working with older teachers could be an obstacle. She perceived that: “It’s really hard to take on board advice from someone who’s younger”, particularly if those teachers also had special education qualifications.

*Attitudes, Perceptions and Beliefs*
In addition to their experience and skills, three SLPs spoke about the role of their attitudes, perceptions and beliefs in their work with students with MSD. “Early career” SLPs noted that their incomplete understanding of their role in supporting students with MSD could be an obstacle (Sarah, Bonnie). However, Zina emphasised that an attitude of not underestimating parents’ and teachers’ knowledge of individual children supported SLPs to work effectively with students with MSD. These points are elaborated in the discussion about communication intervention with students with MSD in Part 3. The next section outlines the SLPs’ perceptions of teachers’ characteristics and their role in either hindering or supporting communicative interactions for students with MSD.

*Teachers’ Characteristics*
Several SLPs spoke about their perceptions of teachers’: (a) enjoyment, interest and affinity for their work; (b) experience, knowledge and skills; and (c) attitudes, perceptions and beliefs.

*Enjoyment, Interest and Affinity*
Four SLPs noted that teachers’ interest and affinity for working with students with MSD influenced their communicative interactions. They reported vast differences amongst the teachers they worked with. Keira commented that teachers need to “love” or “feel passionate” about working with students with MSD because of the patience, persistence and motivation required. Zina noted that: “For the most part teachers who are working with this population are very, very motivated and dedicated and are there for all the right reasons”. Further, Alice posited an association between teachers’ enjoyment, “natural interaction” with students with MSD, and openness to working with SLPs.
Louise, however, suggested that not all teachers have this affinity: “Some people are more naturally responsive communication partners and they tend to respond to smaller cues. Other people might not pick up on the cues instinctively”. Other SLPs talked about teachers who showed little interest in working with students with MSD. Louise said:

> I have met teachers who seem to have fallen into that career path without having a passion for it. I’m not sure why they stay because they clearly don’t have much interest in it and it’s a barrier in terms of progressing with a child’s learning needs.

SLPs related experiences of teachers who were “tired” (Louise), “exhausted” (Zina), and even “burnt out” (Louise). Some of the perceived reasons for their emotional states are discussed in the following sections.

**Experience, Knowledge and Skills**

In addition to teachers’ interest in, and affinity for students with MSD, SLPs spoke about the perceived impact of teachers’: (a) amount of experience, and (b) individual differences in knowledge, in supporting the communication of these students. They reported working with teachers with varied experience and skill levels; from new graduates to teachers with 30 years experience (Keira, Alice, Zina). Lara said:

> “Different teachers bring different skills or experiences to the table”.

**Amount of teaching experience.** There was a perception that more experienced teachers may need less support from SLPs (Keira, Alice). Alice reported “adding a few suggestions, sorting out the nitty gritty” to enhance the effectiveness of existing communication supports. However, such experienced teachers reportedly could also be “inflexible” (Zina). Keira said: “They’re a bit more set in things that have worked for them [before]” and, Alice added: “[They] don’t want to try anything new”.

There was also a perception that, while newer teachers with very little experience needed more support from SLPs, they tended to be more enthusiastic, energetic and open to learning and implementing suggestions (Keira, Zina, Alice). Therefore, the influence of the teachers’ amount of experience on their ability to support the communication of students with MSD was reportedly mediated by other factors, as discussed below.

**Individual differences in teachers’ knowledge.** Other SLPs reported individual differences in teachers’ knowledge unrelated to their amount of experience. Sarah, Bonnie and Laura commented that some teachers had limited understanding about
disability, communication and the educational needs of students with MSD, despite teaching these children for years. Louise recalled teachers who struggled to understand “the more obvious strategies such as waiting or looking for cues”.

Teachers’ lack of knowledge about AAC, particularly visual communication strategies was also seen as an obstacle to supporting the communication of these students (Keira, Laura). Laura noted that:

Some teachers are fabulous, they know what communication means, what sort of intervention might be good for a child but others just focus on speech. I have to go “Yes they [visual communication strategies] are good, give them a go”. I feel like I’m banging my head against a brick wall.

Teachers’ knowledge and skills for communicating with students with MSD were also seen to be influenced by their previous experience working with SLPs (Bonnie, Zina, Louise), different aspects of which are discussed in Parts 2 and 3.

**Attitudes, Perceptions and Beliefs**

SLPs also commented on teachers’ attitudes, perceptions and beliefs about: (a) students with MSD, (b) their role as communication partners, and (c) the role of SLPs.

*Perceptions of students with MSD.* Teachers were perceived to have a range of expectations of students that influenced both their communication with the students and how effectively SLPs could support them (Bonnie). SLPs observed that some teachers had low expectations, particularly of older students (Louise, Laura, Bonnie). Zina described the “disheartening” experience of teachers resisting input because they believed students were not capable of communicating, and therefore “didn’t see the point”.

Other teachers reportedly expected too much from students with MSD and had difficulty accepting their support needs. Bonnie said of one such teacher: “We found that we kept coming up against brick walls with her, she was very negative, she got very frustrated”. Laura reported “a reluctance to try and modify tasks or activities to suit the child’s communication level or their ability”.

Yet, other teachers were found to be “more positive” and “more realistic” (Bonnie) about the student’s capabilities and to set achievable goals. Bonnie said of a teacher: “She has been realistic about what they can do, what their skills and strengths are, and incorporating that into her classroom”.

*Teachers’ perceptions of their role as communication partners.* Teachers were also reported to have varying attitudes towards communicating with students with
MSD. Zina said: “Sometimes staff realise that it’s important to interact with the child and then others are like a baby-sitting service. They’re like ‘I’m here to feed them, make sure they get to the toilet and that’s all I do’”. These perceptions reportedly influenced teachers’ willingness to implement communication strategies. Some teachers were found to be open and willing to “give something a go” (Lara) or “try something new” (Louise), while others were “inflexible” and “resistant” (Laura) to trying even “very easy” communication strategies (Laura). Laura said: “I had suggested a home school communication diary using visuals; ‘Today I did….’. The teacher just said ‘No, no I’m not doing it.’ That was a disaster”. Alice commented that teachers’ willingness to try communication strategies was also influenced by their perceptions of the role and helpfulness of SLPs.

**Teachers’ attitudes towards speech-language pathologists (SLPs).** SLPs perceived that there were varying attitudes towards them, even among teachers within the same school, which could either support or hinder communication intervention for students with MSD (Louise). Teachers’ perceptions or attitudes viewed as obstacles included that: (a) SLPs were “judging” or “scrutinising” them (Lara), (b) it was the SLP’s role to “fix” the child’s communication (Alice), and (c) SLPs’ input was not supportive. Regarding the second point, Alice said:

> We make our best efforts to build [intervention] into what’s already happening in the day but then it’s not always implemented because I’m not sure if they see it as the speech pathology they were expecting, not the “fix all” that they’re hoping for.

Zina and Bonnie suggested that the third point resulted from teachers’ previous experiences. Bonnie suggested that teachers who had been working for a long time became “jaded” with SLPs coming in, giving them programs, and leaving without supporting the implementation, particularly if the recommendations or strategies did not appear to be useful. SLPs perceived that their, and teachers’, characteristics also interacted with access to professional development, the subject of the next part of this chapter.

**PART 2: PROFESSIONAL DEVELOPMENT**

SLPs reported their perceptions and experiences of professional development for themselves and the teachers they worked alongside. They also described how access to professional development either supported or hindered the communication
opportunities of students with MSD. Professional Development is represented as a bar across Figure 6.1 because it was perceived not only to involve individuals but to be influenced by factors at a number of levels. SLPs’ experiences of professional development are summarised in Table 6.2. Their perceptions of teachers’ access to professional development are summarised in Table 6.3.

Bonnie described “early career” SLPs and “early career” teachers trying to work together as “like the blind leading the blind”, because neither had received adequate preparation to work with students with MSD. She said: “The teachers aren’t sure what they’re doing or what they need from you and you’re not sure what you need from them. It’s quite a barrier”. She perceived that both professionals needed to be well supported while they were gaining experience in the early part of their careers.

**Professional Development for Speech-Language Pathologists (SLPs)**

SLPs talked about the following features of professional development: (a) their pre-service training, (b) supports in the workplace, (c) ongoing communication and swallowing education, and (d) the role of the education system.

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service training in speech-language pathology (SLP)</td>
<td>Limited training for disability, severe communication impairment, AAC and collaboration.</td>
<td></td>
</tr>
<tr>
<td>Supports in the workplace</td>
<td>Additional time for early career SLPs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regular supervision by senior SLPs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regular informal and formal contact with other SLPs and therapists.</td>
<td></td>
</tr>
<tr>
<td>Ongoing communication education</td>
<td>Ample access to professional development.</td>
<td>Difficulty making time to read the literature.</td>
</tr>
<tr>
<td></td>
<td>On-line journal resources and databases.</td>
<td></td>
</tr>
<tr>
<td>The role of the state education system</td>
<td>Limited education about curriculum, and technologies.</td>
<td></td>
</tr>
</tbody>
</table>
Pre-Service Training in Speech-Language Pathology (SLP)
The majority of SLPs reported limited pre-service training in disability, severe communication and swallowing impairment, AAC and collaborative practice (Sarah, Bonnie, Zina, Laura, Louise). Laura reported that the government department employing SLPs offered “lots of student placements” to give SLP students practical experience. However, Louise perceived that SLPs often did not have the training or skills to support students with MSD and this could be an obstacle when trying to collaborate with teachers. Several SLPs reported their experiences of “on-the-job learning” (Zina, Sarah, Bonnie).

Supports in the Workplace
“Early career” SLPs reported being given additional time to do their work, during which they reflected on their practices and collected data to evaluate outcomes (Sarah, Alice). Sarah recalled that: “Even over the past 6 months, I’ve thought ‘I could have done this, I could have done that’”. Sarah, Bonnie and Lara spoke about the value of regular individual supervision with senior SLPs, who would accompany them on visits to observe and help with assessments and intervention. They also spoke about learning from other SLPs and therapists, such as occupational therapists, through informal discussions and regular opportunities to meet (Sarah, Lara), as discussed in Part 4. The SLPs reported recently attending a 3-day state-wide conference on intervention with students with disabilities where:

There were speech pathology specific forums to share ideas and we had teachers present as well to get their ideas on what helps them in the classroom when working with students [with MSD].

Ongoing Communication Education
They also spoke about the value of ongoing formal education for updating skills and knowledge, maintaining motivation, and ensuring evidence-based practice (Lara, Keira, Alice). Lara said:

Ongoing training and finding out about different approaches like Intensive Interaction or the Hanen Program, keeps you, your skills and knowledge and motivation fresh otherwise you get a bit rusty.

Further, they reported having ample access to professional development. Keira said: “We’re lucky we get lots of professional development opportunities”. Alice reported that while the government department also provided an online journal resource, she had difficulty accessing relevant articles, and then making time to read them.
The Role of the Education System

Sarah suggested that SLPs needed to learn more about the curriculum taught in schools, and how to support teachers with programming for students with MSD. She also reported a need to be educated in the use of learning technologies such as the Smart Board.

Communication Education for Teachers

SLPs also shared their perceptions of teachers’ education needs and ways the state education system could better support teachers. They also described the role of SLPs in providing communication education for teachers.

Table 6.3
Speech-Language Pathologists’ Perceptions of Communication Education for Teachers (Stage 3)

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers’ education needs</td>
<td></td>
<td>Inadequate pre-service and continuing education.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need for education about disability, communication/swallowing and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>collaborative practice.</td>
</tr>
<tr>
<td>The role of the state education</td>
<td></td>
<td>Limited supervision/mentoring.</td>
</tr>
<tr>
<td>system</td>
<td></td>
<td>Few regular opportunities to meet with other teachers.</td>
</tr>
<tr>
<td>The role of speech pathologists</td>
<td>Provide informal education to individual teachers.</td>
<td>Variable success providing education to individual teachers.</td>
</tr>
<tr>
<td></td>
<td>Provide some education to groups of teachers.</td>
<td>Insufficient opportunities to provide education to groups of teachers</td>
</tr>
<tr>
<td></td>
<td>Exploring teachers’ education needs.</td>
<td>about communication and swallowing.</td>
</tr>
</tbody>
</table>

Teachers’ Education Needs

SLPs noted that, regardless of whether teachers had special education training, their pre-service training appeared inadequate to support students with MSD (Louise, Laura, Sarah). Teachers were also perceived to have limited access to continuing professional development (Zina), and this was viewed as a barrier for teachers working with students with MSD (Bonnie, Keira). Zina recalled teachers in a mainstream setting attempting to support a student with MSD, with no previous experience and little access to relevant training. Louise noted that the training teachers were receiving may not be useful. She said:
I got the impression that they had their staff development days twice a year or whatever the [state education system] made them do, but the training that they were receiving was not necessarily directed by what they were requesting.

Therefore, SLPs perceived that teachers needed more education about the complex needs of students with MSD, including communication and swallowing, and the importance of collaborating with people outside the school such as SLPs (Laura, Bonnie, Zina, Keira). Keira commented that teachers needed:

*More regular communication training opportunities. All teachers would benefit from understanding more about the different visual communication strategies, the Hanen Program, Intensive Interaction, and how to incorporate them into everyday routines.*

**The Role of the State Education System**

In addition to limited access to formal education, such as in-services/workshops, SLPs also perceived that teachers received little supervision or mentoring to support them with educational programming and developing appropriate individual education plans (IEPs) for students with MSD (Alice, Louise). Teachers were also seen to have few regular opportunities to meet with other teachers to discuss and problem-solve situations (Louise). Given the varied knowledge, skills and attitudes of teachers, SLPs suggested ways that the state education system could better support some teachers.

These are discussed in Part 5. They also talked about their own role in providing communication and swallowing education for teachers.

**The Role of Speech-Language Pathologists (SLPs)**

SLPs talked about their formal and informal provision of communication education for teachers, as well as the need for enhancement of this service.

*Informal communication education.* SLPs reported providing informal education to their individual client’s teachers and/or learning support officers (LSOs) (Bonnie, Zina, Alice, Lara). They reported often having to provide much information and “hands-on” modelling of how to facilitate communication with individual children and implement AAC in the classroom (Bonnie, Sarah, Zina, Louise). Zina reported providing support for “early career” teachers with involving students with MSD in classroom activities and finding opportunities for communication.

However, SLPs reported varied success in educating individual teachers, and perceived that this was influenced by teachers’ characteristics, as discussed above. Lara said: “*Some teachers are really receptive to what you’re giving, are thirsty for*
more knowledge and ask questions. Other teachers don’t appear to be interested”. SLPs perceived that being able to provide this support for teachers was also influenced by factors that are discussed in Part 3.

**Formal communication education.** SLPs reported having few opportunities to deliver communication education with groups of teachers (Alice, Bonnie, Keira, Louise). However, they reported receiving positive feedback and observing benefits when teachers had participated in formal in-services/workshops. Louise recalled:

*It had a positive effect on the interactions with kids that were very profoundly disabled. It was great to see them involving some of these children in small group activities.*

SLPs reported participating in a variety of communication education events for teachers. These included: “The state-wide public education conference in 2007” (Lara), staff development days, initiated by the principal and involving all staff at a school (Zina, Laura), regular staff meetings (Zina), and parent teacher evenings (Laura). Laura reported presenting a Makaton (Brownlie & Bloomberg, 2011; Walker, 1993) course for staff, and a talk about visual communication at a parent teacher evening at the same school. She said:

*I had lots of parents asking me for advice afterwards so that was exciting. I love getting parents and teachers in one place and delivering the same information because sometimes there is a breakdown between what you tell the teachers and then how they interpret that and present it to the parents.*

Lara perceived that working with groups of teachers at a school was positive because it enabled the teachers to “throw out ideas” and “problem solve”. Zina reported that this model of training would be offered to other schools.

**Improving communication education for teachers.** SLPs talked about exploring the education needs of teachers in specific schools, with a view to structuring training accordingly (Keira, Zina, Louise). Keira reported that she was:

*Currently meeting with some of the principals and teachers from a few of the SSPs in our area to see what communication training they are wanting and we’re hoping to specifically tailor that to what they need.*

This extended to exploring different ways of providing communication education, for example through the use of videotaping (Keira). However, SLPs also perceived that they had a role in initiating education with staff at a school where they saw an area of
need, as when the same issues continued to present as service requests (Louise, Keira).

SLPs perceived that their professional development role was influenced by the contextualised nature of communication intervention with this population of students, and the success of collaboration with their teachers and families. These factors are presented in the next part.

PART 3: COMMUNICATION INTERVENTION/COLLABORATION

SLPs spoke at length about communication intervention with students with MSD. This included collaborating with their teachers and families. Because these processes were perceived to interact with factors at a number of levels they are represented by a bar across Figure 6.1. The supports and obstacles discussed for communication intervention and collaboration are summarised in Tables 6.4 and 6.5 respectively.

Communication Intervention

The SLPs raised two main issues about supporting the communication of students with MSD: (a) the “paradigm” (Louise, Alice) of intervention with these students, and (b) the role of AAC.

Table 6.4

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>The paradigm; contextualised nature of communication intervention.</td>
<td>Observing students in the classroom and home.</td>
<td>Withdrawing students to work on communication skills in isolation.</td>
</tr>
<tr>
<td>The paradigm; implications for SLPs and teachers</td>
<td>Supporting implementation of communication in the classroom and home.</td>
<td>Giving programs or resources to teachers or parents without supporting implementation.</td>
</tr>
<tr>
<td>The role of augmentative and alternative communication (AAC)</td>
<td>SLPs need to think differently than possibly the way they were trained.</td>
<td>Teacher expectations of the traditional model of communication intervention.</td>
</tr>
<tr>
<td></td>
<td>Crucial for communicating with students with MSD</td>
<td>Difficult for SLPs to stay up-dated with AAC.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficulties accessing, programming and maintaining AAC systems as current and “best practice”.</td>
</tr>
</tbody>
</table>

The Paradigm

The contextualised nature of communication intervention. There was consensus that SLPs withdrawing students with MSD from their contexts to work on
communication or swallowing skills in isolation was not efficacious. SLPs stated that to support students with MSD to communicate, intervention must be contextualised and carried out by the main communication partners (Louise, Alice, Zina). SLPs (Laura, Keira, Bonnie) therefore perceived that it was necessary to observe students in the contexts in which they were communicating, the classroom and home, to explore how they may already be communicating, and “look for more communication opportunities in their already established routines” (Keira).

However, SLPs also noted that giving teachers or parents programs or resources, such as visual supports, without enabling their implementation was equally unsupportive (Zina, Alice, Laura, Bonnie, Keira). They noted that teachers and families needed to be supported to incorporate intervention into daily activities and routines in the classroom and home. This included “setting up” (Laura, Keira) communication strategies or systems and showing teachers and families how to use them. Keira said:

Really try and give them specific examples of things they can do in their daily routines already. So if it’s toilet time, you teach them a sign or you give them an object or a photo they can use and you model it in that time, in the real time that its happening. It really does need to be incorporated into what they are already doing otherwise it’s not going to be implemented by them, and it’s not going to benefit the child.

SLPs stated that communication intervention with students with MSD requires collaboration with teachers and families, discussed in detail below.

The paradigm shift for speech-language pathologists (SLPs) and teachers. SLPs perceived that this paradigm of communication intervention presented challenges for both SLPs and teachers. Sarah, Zina and Alice talked about the need for “a change of mindset, a completely different mindset” (Sarah) to the way they may have been educated as SLPs. Louise and Zina noted that because intervention is different for every child in their particular family and school situations, SLPs have to “think outside the box and look at everything from a holistic perspective, and think more functionally” (Zina).

They also perceived that some teachers still expected the traditional, withdrawal model of communication intervention. Sarah said: “I think their perception is that I will come in and provide one-on-one support to a client, for example for a term, in that community health model”. Alice noted that the model of
intervention provided, aiming as described above to augment daily routines and classroom activities to make them more accessible and provide more opportunities for communication, may not be what teachers were expecting “and they don’t believe in it yet” (Alice).

**The Role of Augmentative and Alternative Communication (AAC)**

SLPs also reported that AAC was central to supporting students with MSD (Laura, Zina, Louise, Sarah). Laura reported using key word signs, gestures and tangible visual supports in all her interactions with students with MSD. However, SLPs identified obstacles to the use of AAC. Louise noted that SLPs may have both limited expertise in AAC and find it difficult to be up-to-date with all the AAC systems that are available.

SLPs also noted that accessing high-tech devices and related equipment, and then programming and maintaining them, could be barriers. Zina said:

> I’ve got a client using an E-Talk. So he’s gone through months and months and months of funding and trials to receive the E-Talk. Finally he has the E-Talk but can’t use it because he’s waiting on a new wheelchair to be able to get the mounting for the E-Talk. This will probably span over about two years before it’s actually in place.

Sarah noted that SLPs had to negotiate roles with parents and teachers for the programming, updating and maintenance of AAC systems, particularly high tech devices. Hence, both “high tech AAC devices” and “low tech systems” can “end up sitting on the shelf” (Sarah). Collaboration with teachers and families are discussed in the remainder of Part 3.

**Collaboration with Teachers**

SLPs reported that collaboration was necessary to fulfil a professional development role for teachers, and to implement communication intervention that supported positive outcomes for students. Zina said:

> I think it’s such an important link for us to have with teachers, to have a joint approach of what’s best for the child and that’s the main thing.

SLPs talked about: (a) other benefits of collaborative practice, (b) their experiences collaborating with teachers, (c) recommendations for effective collaboration, and (d) attempts to improve collaboration with teachers.
**Other benefits of collaboration**

In addition to the benefits already mentioned, there were other perceived benefits for SLPs and teachers emanating from collaborative practices.

### Table 6.5
**Supports and Obstacles Associated with Collaboration (Stage 3)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Negative experiences associated with teachers being unwilling or unable to collaborate.</td>
</tr>
<tr>
<td>Recommendations for effective collaboration</td>
<td>Positive attitudes towards collaboration. Working with the needs and circumstances of individual teachers. Adequate time for teachers and SLPs to meet. A professional relationship; open, on-going, honest communication, joint goal setting. Making communication systems together.</td>
<td>Time constraints for teachers and SLPs to collaborate. Teachers not providing honest feedback to SLPs. Having conflicting goals for a child.</td>
</tr>
<tr>
<td>Collaboration with families</td>
<td>Family-centred practice supports intervention at school.</td>
<td>Not always possible to collaborate with families.</td>
</tr>
<tr>
<td></td>
<td>Communication between school and home facilitates consistent communication strategies across contexts. SLPs facilitate communication between school and home.</td>
<td>Little or ineffective collaboration hinders implementation of communication strategies. SLPs can be caught in the middle of ineffective collaboration between school and home.</td>
</tr>
<tr>
<td>Home context</td>
<td></td>
<td>Parents’ levels of education, cultural differences and low socio-economic status.</td>
</tr>
</tbody>
</table>

*Benefits for speech-language pathologists (SLPs)*. Zina commented that working collaboratively with teachers facilitated the enjoyment and sense of reward she experienced when working with students with MSD. Zina reported that teachers
provided her with background information that influenced the ease and success of her work. Other SLPs reported that collaborating with teachers taught them about working with groups of students with MSD in the classroom context (Lara); and kept them informed about events in the education system, such as the professional development offered.

**Benefits for teachers.** Louise perceived that collaborating with speech SLPs had an important problem solving and debriefing function for some teachers. She said: “I found teachers appreciated having another head to discuss their problems and debrief about some of the issues that they’re experiencing”. She noted that collaboration enabled teachers to discuss how the families of their students were managing, because SLPs also worked in the home context.

**Speech-Language Pathologists’ (SLPs) Experiences of Collaborating with Teachers**

Despite the perceived benefits, SLPs reported varied experiences of collaborating with teachers. Lara said:

> It’s a mix, it’s been 50/50. I’ve had some really positive experiences working with teachers but also working with parents or teachers who are difficult to engage. That can be hard to see the potential a child has to further their communication skills and not reaching that potential because of external factors.

Bonnie, Keira, Lara, Laura, and Alice reported positive experiences. Alice said: “I’ve had some really excellent experiences of working with some teachers and collaborating with them for these students”. Laura reported that “one of my most memorable experiences” was the opportunity to work with a whole class group because there were a number of students referred from the same class.

SLPs also reported negative experiences. These included being unable to contact a teacher, and eventually arranging visits to find that the teacher was not there (Laura). Bonnie, Louise and Alice reported experiences with teachers who could not, or did not, want to collaborate because they were “not interested” (Bonnie), did not see the need to use communication strategies (Alice), or were at “breaking point” (Louise). Bonnie recalled: “It got to the point where we just gave up because there was not much more that we could do”. Alice recalled an experience with a teacher who used a visual schedule. A specific student needed real objects for choice-making, but the teacher was unwilling to collaborate with Alice, reportedly saying: “Well, I can’t be doing something different for him”. Alice also recalled experiences with
“teachers who welcome the suggestions that you provide but never seem to actually implement them”, and going back to be told: “Oh yeah, we haven’t done that yet”. These experiences were perceived to be influenced by teachers characteristics, as outlined in Part 1, and broader contextual factors discussed in the following parts.

**Recommendations for Effective Collaboration**

In light of their experiences, SLPs perceived that there were a number of features associated with positive experiences of collaboration that resulted in positive outcomes for students with MSD. These included: (a) positive attitudes, (b) flexibility in working with the needs and circumstances of individual teachers, (c) adequate time, (d) the nature of the professional relationship, and (e) making communication systems.

**Positive attitudes.** Bonnie and Louise spoke about the importance of both teachers and SLPs being open to collaborating and learning from each other. As suggested in Part 1, Louise commented that when a teacher was positive, collaboration was most likely to succeed. She said: “If the teachers say ‘yes please come’ then you know that you’re going to have a positive working experience and the collaboration is going to be beneficial”.

**Working with the needs and circumstances of individual teachers.** SLPs perceived that they needed to work differently with each individual teacher for collaboration to be effective. In addition, Bonnie noted that it could be an obstacle if a SLP and teacher had very different “styles of working”. So, she reported often having to change the way she worked in order to collaborate with a teacher. Sarah commented that she had to gauge “how much you can ask them to do” depending on “how capable” or “how much they feel they can support the student”. Lara talked about the need for SLPs to be “flexible” and “realistic” about “what the teacher or the aide can actually do in the classroom environment within the time or resources they have”. SLPs perceived that collaboration was more likely to succeed when they worked with teachers’ characteristics and the classroom and school situation. The latter are elaborated in Part 4.

**Adequate time.** There was consensus that collaboration with teachers involved time; at the beginning of a service request, and over longer periods of time. Sarah noted that time was needed at the beginning of service requests to talk with teachers about students’ communication needs and opportunities in different routine activities throughout the school day. So, Sarah, Keira, Laura and Alice noted the importance of
arranging appropriate times to formally meet with teachers outside the classroom, “so that they can have their mind a little bit freer and take things on board a bit more” (Keira). Sarah recalled that “the really meaningful stuff happened when you sat down and planned”. Laura recalled that when she conducted the whole class group, mentioned above, she sat down with the teacher; they talked about goals and planned the group together, enabling the teacher to eventually continue the group alone.

SLPs also noted that opportunities to work with particular teachers over a period of years supported the efficacy of collaboration (Bonnie, Lara, Louise). Lara said:

I’ve got one teacher who I worked with quite a bit with a number of different children over the last few years. That has been really positive in the gains that the students have made.

Louise commented that SLPs needed to be physically present at schools, spending time with teachers, including in the staffroom during break times, to build rapport/relationships with individual teachers. She said: “I think we underestimate how much us as humans need to have that constant face”.

Time constraints, however, both for teachers and for SLPs were perceived as a barrier. SLPs were aware that it could be difficult for teachers to make time to meet, and often felt like they were “imposing” (Sarah). Sarah noted that, as a result, communication with a teacher could sometimes be informal, “catching the teacher while you’re coming on a school visit”. SLPs also perceived that they could not spend the time required with teachers to build rapport. Bonnie said:

Because you are not there that does not make for great rapport building. Teachers appreciate when you give them time and you are there but sometimes you just do not have the time to do that.

The professional relationship. According to the SLPs, effective collaboration is dependent upon rapport, respecting each others’ time and contributions, joint goal setting, and open, on-going, honest communication (Sarah, Bonnie, Lara). Several SLPs talked about the importance of joint goal setting and “taking joint ownership” (Keira) of communication intervention (Zina, Alice, Lara, Louise, Sarah, Keira). They perceived that it was important to gather, and interpret information together, and then discuss communication strategies that might work and where they could fit into the routine of the classroom (Louise, Keira, Alice). Lara recalled a teacher who:
Was quite willing to sit down and have a discussion and come up with those goals together which I think makes a big difference because they are motivated to achieve those goals because it’s what is going to make a difference to their classroom.

Keira added:

You come up with the ideas together, you give them something to try, they then go away and try it for a few weeks and you come back together and talk about how it went, what worked, what didn’t and you really problem solve together.

Louise and Alice perceived that negotiating roles and how to work together for a child, using “give and take” and “flexibility” was also important. However, SLPs noted that it could be an obstacle when they had different goals to the teacher for a student (Sarah).

Given potential conflicts, SLPs perceived that teachers and SLPs needed to feel comfortable with each other (Lara, Sarah, Bonnie). Sarah commented that teachers needed to provide honest feedback to SLPs. However, Lara agreed that teachers were not always honest with SLPs about whether they could implement a communication strategy or thought it was feasible and would work. Lara said:

I think it is important to be comfortable enough to ask questions about advice or to let the speech pathologist know if something is not working. Sometimes I find it difficult to get teachers to be honest with me if something is not working so we can go from there.

Bonnie noted that this situation made it difficult for SLPs to determine why a communication strategy was not being implemented. Sarah agreed that ongoing communication to monitor the progress of an intervention, or make modifications, could be difficult. Bonnie commented: “There’s not a great deal of communication between teachers and us, I don’t think”.

Making communication systems. A specific aspect of joint ownership discussed was making communication systems. SLPs perceived that teachers involved in making communication systems had some ownership and were more likely to use them with students (Alice, Keira). Keira reported teachers being involved in gathering object symbols, remnants and taking photos for communication systems. However, she also noted that, at times, it was very supportive if the SLP could “do a lot of the behind-the-scenes work to actually put together all the visuals and things”. While Alice agreed, she also believed that teachers might be less likely to use these
Collaborating with Families and Working in the Home Context.
In addition to collaborating with teachers, SLPs spoke about: (a) the importance of collaborating with families, (b) the importance of communication between the school and home, (c) their role in facilitating this communication, and (d) family issues.

The Importance of Collaborating with Families
SLPs emphasised that collaborating with families supported communication intervention for students with MSD, including at school. Sarah said: “In terms of my ability to support school the information I got from home was really useful in looking at the overall goals for the client”. She also reported “talking to the family about the goals they’ve chosen thinking about the particular child’s long term needs” enabling, where possible, goals to be incorporated into school (Sarah). Sarah gave an example of “consolidating the home and school goals because they both related to communication at meal times”.

However, SLPs commented that it was not always possible to collaborate with families. Lara recalled “working with parents who are difficult to engage, who have a lot of other commitments, so following through recommendations for a child’s communication is not feasible or a low priority”. They also reported that parents had varying perceptions of their child’s ability and that this could present an obstacle.

Alice said:

Across the spectrum of families there are those who have realistic goals about what their child is able to do regarding communication, those who underestimate the child’s ability and those who perhaps might overestimate the child’s ability and do not put anything in place because they feel the child understands everything.

Sarah reported that sometimes families wanted the SLP to support the child at school, which left her wondering: “Am I supporting school effectively if I don’t have that information [from home]”.

The Importance of Communication between School and Home
SLPs therefore talked about the necessity of “teamwork” (Zina) for supporting “consistency between home and school” in the use of communication and swallowing strategies. They reported that because parents and teachers are “experts” (Alice),
sharing their observations supported the process of interpreting the student’s communication (Laura, Alice), and subsequently allowed “both parties to get feedback as to what’s working, what’s not working in one environment” (Zina).

Sometimes teachers and families were reportedly already collaborating before a SLP became involved (Alice). Alice commented that “with the families and teachers who are already collaborating, it’s a lot easier to do that across context collaboration”.

However, SLPs also noted that sometimes communication between school and home did not occur. Zina commented:

You do need everyone on board and if there is a bit of resistance from anybody who is caring for the client that you are working with then that can make it quite frustrating.

Alice recalled:

I was at one school where a speech pathologist from our team suggested using a home-school diary with this child and the assistant principal said “How can you be expecting us to do that?”

SLPs recalled experiences of communication difficulties between schools and families, making it difficult to implement communication strategies for the child (Alice, Laura, Zina). Alice observed that when a teacher and family had different interpretations of a child’s behaviour, it could be difficult to implement consistent communication strategies, such as a personal communication dictionary. Laura recalled an experience where communication between a teacher and parent worked against the SLP. She said:

The teacher tells the Mum that she doesn’t believe in using visual supports and that’s what I’d been trialling with this boy and what I was going to be suggesting to the Mum to follow through at home. I almost felt like it was two against one then and thought “I’m not going to get very far with this”.

**The Role of the Speech-Language Pathologist (SLP)**

So, Alice reported that sometimes SLPs started with “just helping the family and the teachers being in consultation with each other before we can even work on a goal”. SLPs used metaphors to conceptualise their role in facilitating communication between the schools and families of their clients. These included; “the bridge” (Sarah), “the messenger” (Sarah, Laura), “the vessel” (Sarah), and “the ham in the sandwich” (Laura).
The bridge. SLPs were aware that working in both the school and home settings provided a link, and in some cases with other settings such as respite facilities (Zina, Sarah). Zina noted that: “We are in a good position to support school and home and to provide that link if it has not been there before”. So, SLPs saw themselves as having a role in supporting communication to occur consistently across different environments (Sarah).

The messenger and the vessel. SLPs perceived that conveying information between a teacher and family could often be part of supporting students with MSD. Sarah and Laura reported that they often felt like a “messenger” between the teacher and parent of a client. Laura reported conveying important information from parents to teachers about changes to children’s medications and specialist appointments, because of their potential impact on behaviours, attention and school attendance. Sarah also suggested that teachers may have inadvertently used her in this way:

It’s almost like you’re the teacher’s messenger because the teacher knows that you’re going to see the child in the home environment and chatting with the parent. So, it’s almost like you’re a sounding board for the teachers in pushing their agenda where their goals are slightly different to what the parent wants.

According to Sarah, being in this position meant that SLPs dealt with information sensitively. She said: “So you being there, you’re a vessel of all this information and remembering who is allowed to hear it or who needs it”. As Sarah discussed, it raised issues of confidentiality, necessitating that SLPs check with the family before sharing information with the school. She warned: “You’ve got to be really careful actually, it flags up that certain information has to not go across and I haven’t had it occur where parents are ‘no I don’t want you to talk to so and so about this’”. So, according to Sarah and Laura, SLPs could find themselves in situations where they were wondering why a parent was not communicating important information with a teacher, and teachers were debriefing with them about difficulties they were having collaborating with the family of a student.

The “ham in the sandwich.” Laura reported experiences of being in the middle of schools and families who were not working well together, while trying to maintain relationships with both. She reported often trying to be “an advocate for the family” to implement communication strategies at school and at the same time trying to maintain her relationship with the school when the teachers did not want to implement the
strategies. Alice commented that much of SLP’s work involved building relationships and emotionally supporting teaching staff and parents.

**Home Context and Family Issues**

In discussing family issues, SLPs introduced their perspectives on the influence of context on communication intervention and on the support they could provide. They perceived that their goals and expectations needed to be realistic for families, involving small steps, and other children in the family, a family-centred approach (Laura, Sarah, Keira, Alice). (This issue is also discussed in relation to teachers and the school context in Part 4). SLPs raised issues of families’ backgrounds that presented obstacles to supporting the communication of their children with MSD. These included: (a) the parents’ education level, (b) cultural differences, and (c) low socio-economic status.

*Parents’ levels of education.* Bonnie noted that for parents who were not well educated, it could be difficult to access SLP and other services. So, she perceived, these parents may not take the necessary steps to make service requests for their children.

*Cultural differences.* When parents have a non-English speaking background, ensuring successful communication between families, teachers and SLPs could be an issue. Sarah recalled: “English-as-a-second-language issues where over the phone with teachers and with myself there have been miscommunications”. Keira added: “Language barriers can be difficult because it’s hard for the teachers to really find out if the things that they are doing at school carry over to the home settings”.

In addition, SLPs noted that teachers did not seem to use interpreters, and this presented a barrier. Alice recalled an experience of teachers trying to communicate with a family by writing in English in a communication book “but the family only speaks, reads and writes Korean so they just don’t get that message”. She added: “It’s an ongoing issue and I’ve prompted them to try and use an interpreter but that doesn’t happen. It just makes it more complex”. She went on to report: “I’ve had the experience of going to a meeting at the school and having the family there but no one has arranged an interpreter for them so they’re not able to contribute and the family’s letting me know that they haven’t had the opportunity to contribute to the Individual Education Plan (IEP)” or raise any other concerns that they have with the school. Alice concluded by saying that she was arranging a meeting at the school so that the
teacher, family and SLP could collaborate, and that she would arrange an interpreter to accompany her because “the school doesn’t tend to arrange that” (Alice).

Low socio-economic status. These SLPs also reported that the majority of families of their clients would be considered to have a low socio-economic status and that this presented barriers to them accessing some communication strategies. Keira noted that where families have both cultural differences and a low socio-economic status

*It brings a few obstacles to the table…it’s even more important for teachers and speech pathologists to work together and it’s really important to make sure that all that information between the home and the school and the speech pathologist is flowing through.*

PART 4: TEACHERS’ AND SPEECH-LANGUAGE PATHOLOGISTS’ WORKPLACES: CONTEXTS AND PRACTICES

In discussing communication intervention with students with MSD, particularly the contextualised nature of this work and importance of collaboration, SLPs also identified supports and obstacles located in the contexts in which they and teachers worked. These included SLPs’ offices and the school context, which are represented in Figure 6.1 by the first circle around individual teachers, SLPs and students. The identified supports and obstacles associated with these contexts are summarised in Tables 6.6 and 6.7 respectively.

Speech-Language Pathologists’ (SLPs) offices

In discussing the supports and obstacles associated with the offices where they were based, SLPs identified: (a) other people in the office, (b) resources, and (c) the structure of their time.

Other People in the Office

The supports discussed in Part 2 (for example access to senior SLPs) were available in SLPs’ offices. There were reportedly fifteen speech pathologists, as well as professionals of other disciplines such as occupational therapists, and psychologists in the one office (Louise, Sarah, Bonnie, Keira). Hence, there was consensus that “having so many therapists in one office” was “one of the greatest supports, just that great resource of people” (Alice). As a consequence, SLPs reported that they had constant access to others (Sarah, Bonnie, Keira), and that their offices were a source
of support and informal professional development. They commented that “being in an open plan office” (Keira) meant that “you can just walk over” (Louise) and talk to someone, for the purposes of debriefing, asking for help, sharing experiences, ideas and strategies, problem solving and sharing resources that could be modified for individual clients (Sarah, Bonnie, Keira, Louise, Alice).

Table 6.6
Supports and Obstacles in Speech-Language Pathologists’ Offices (Stage 3)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech-language pathologists’ offices</td>
<td>Other people in the office: co-location of SLPs and multidisciplinary teams.</td>
<td>Time constraints due to caseload of clients at different schools and also working in home contexts.</td>
</tr>
<tr>
<td></td>
<td>Opportunities for informal support.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Regular meetings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resources: availability of equipment and resources for making and lending communication systems to schools and families.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Structure of time: flexibility to organise work schedule and visit schools and homes.</td>
<td></td>
</tr>
</tbody>
</table>

SLPs also reported the availability of other SLPs, particularly seniors, and other professionals to accompany them on visits to observe, give advice and even assess clients (Keira, Alice). Alice noted the value of “having another set of eyes to give some suggestions and to see it from a different angle, putting heads together - that’s fantastic”. In addition, regular formal meetings occurred for all the SLPs in the office and for multidisciplinary teams (Bonnie). Bonnie said:

At our regular meetings with all the speech pathologists in the office and team meetings which are multidisciplinary we have the chance for case discussion and coming at it from different perspectives and that can be helpful. So there’s quite a lot of support.

Keira commented that she valued the multidisciplinary team for being able to take a “holistic approach to communication”. She spoke, for example, about the support provided by occupational therapists for achieving optimum positioning for students to access AAC systems.

Resources
The senior SLPs (Louise, Alice) perceived that the equipment and resources available in their offices, such as Boardmaker software (Mayer-Johnson Inc, 1995-2003), laminators and email, supported the SLPs in their work. Louise added that there were
also people in the office experienced in using different AAC resources who could provide support to colleagues. Alice perceived that it was supportive to have communication resources available that could be lent to schools and families. She said: “Just having items available that we can use to trial it or to lend it to see how it goes”. She also perceived that the offices had well set up space for making communication resources that could then be taken to the school or home.

**The Structure of Speech-Language Pathologists’ (SLPs) Time**

SLPs noted that within their offices they had a degree of flexibility in organising their own work schedule which enabled them to visit schools and homes at different times of the day (Alice). However, they noted that because they had a caseload of clients, who may be at different schools, and whom they also had to visit at home, they could not spend “the whole day” at a school with a teacher (Bonnie, Louise). Louise noted that this was an obstacle because her “most successful encounters with teachers have been the ones that I’ve spent the most time with”. Other obstacles reported were “time constraints” imposed at the organisational level. These are discussed in Part 5. SLPs also identified supports and obstacles in the schools where they supported students with MSD.

**The School Context**

The SLPs had varied perceptions of the different school contexts in which they worked. They identified supports and obstacles associated with the experience and expertise of teachers in different contexts, but also reported that classrooms in each context presented their own obstacles. These two points are discussed, followed by SLPs’ comments about: (a) peers without disabilities; (c) learning support officers (LSOs); (d) the structure of time in schools; (e) the role of the principal and the culture of the school; (f) collegiality among teachers; (g) communication practices; (h) funding; (i) resources; and (j) staffing.

**Comparison of Different Educational Settings**

*Special schools (SSPs).* Several SLPs commented that SSPs had a concentration of teachers with experience and expertise working with students with MSD (Lara, Zina, Louise). However, they reported finding SSPs the “hardest” (Lara) setting in which to work because, as discussed in Part 1, experienced teachers may not be open to working with SLPs, or may have become “desensitised” (Lara) to the
student’s complex communication needs, and not see a need for SLP input. However,
Lara observed that the number of different therapists going into SSPs for different
children in a class may be difficult for teachers. This last point is elaborated in Part 5.

Table 6.7: Supports and obstacles in the school context (Stage 3)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison of different</td>
<td>Special schools have staff with experience and expertise.</td>
<td>Staff in special schools do not see the need to work with SLPs.</td>
</tr>
<tr>
<td>educational settings</td>
<td>Staff in support units value SLP input.</td>
<td>Staff in support units have less experience and expertise; under-resourced.</td>
</tr>
<tr>
<td></td>
<td>Mainstream classes can provide good communication opportunities.</td>
<td>Difficult for teachers in mainstream classes to give students with MSD attention.</td>
</tr>
<tr>
<td>Class structure</td>
<td>Communication intervention involves all students and existing classroom routine.</td>
<td>The reality of the classroom; different class structures present obstacles to communication in the classroom. Classroom and school situations limit communication intervention.</td>
</tr>
<tr>
<td>Peers without disabilities</td>
<td>Present opportunities for communication in mainstream classes.</td>
<td></td>
</tr>
<tr>
<td>Learning support officers (LSOs)</td>
<td>LSOs support teachers and can facilitate communication in the classroom.</td>
<td>Limited skills and time to implement communication programs.</td>
</tr>
<tr>
<td>Staffing</td>
<td></td>
<td>Insufficient staff to student ratios.</td>
</tr>
<tr>
<td>Structure of time</td>
<td></td>
<td>Limited time to communicate with students in the classroom, collaborate with speech pathologists, prepare communication programs/systems, attend courses.</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td>Limited access to resources.</td>
</tr>
<tr>
<td>Funding</td>
<td></td>
<td>Limited funding.</td>
</tr>
<tr>
<td>Collegiality</td>
<td></td>
<td>Few opportunities for teachers to meet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited transfer of students’ communication programs.</td>
</tr>
<tr>
<td>Culture and the role of the</td>
<td>Principal supports teachers and involvement of SLPs.</td>
<td>Lack of support from principal for teachers.</td>
</tr>
<tr>
<td>principal</td>
<td>Positive school culture of accommodating students and focus on communication.</td>
<td>Negative school culture that focuses on deficits of students.</td>
</tr>
<tr>
<td>Practices</td>
<td></td>
<td>Inappropriate practices.</td>
</tr>
</tbody>
</table>
were not resourced as well as SSPs (Louise). However, Lara commented that “support classes in a mainstream school are the easiest to work in” because teachers see the need for SLP input for individual students and value it more than teachers in SSPs.

**Mainstream classes.** Few of these SLPs had experienced supporting a student with MSD in a mainstream classroom. Lara perceived that there could be “good communication opportunities as long as you have a good teacher and the opportunities to collaborate with the speech pathologist”. However, she commented that the mainstream classroom could be a “really difficult setting” for a student with MSD because of limited funding for LSOs, and the teachers’ obligation to educate the other 30 or so mainstream students in the class. Zina also reported “more attitudes in a mainstream school environment of it is too hard or they don’t want to take on board things”.

Louise concluded: “The different settings that the children are in will determine what sorts of interventions I’m going to put in place, so looking at the situation, environment, tasks and tools they need”. In the following sections some details of these “situations” and “environments” are presented.

**Class Structure**

The “reality” of the classroom. SLPs were aware of the “reality” (Zina) of the classrooms in which they were trying to support the communication of their clients with MSD. They reported that different class structures presented obstacles to communicative interactions. Zina noted that in a mainstream class, the teacher can give limited one-to-one attention to the student with MSD. However, Bonnie noted that even in segregated classes of “higher functioning” students, teachers could find it difficult to include students with MSD in activities. Classes full of students with MSD were also observed to present obstacles to teachers interacting with individual students (Bonnie, Alice, Lara). Alice noted that in such classes, teachers “have so many demands placed upon them” to meet all the personal care needs and give one-to-one attention for activities that it left little time for them to implement communication programs. Lara commented that “some teachers are really busy - they’ve got very chaotic classrooms”. SLPs perceived that “teachers may know that communication is a priority and it crosses everything” (Alice) but “they find it really hard to incorporate it into the toileting and feeding when they’ve got to do that with six kids” (Keira).
SLPs also reported observing class structures where the mix of children with different, complex needs seemed unworkable and was a major obstacle for the teachers (Louise, Laura, Keira, Lara, Zina). Louise observed:

*You’ll have a mix of children in the one class who are totally unsuited to one another and so teachers can’t even structure the classroom to be a conducive learning environment for the students because you’ve got so and so in the corner who can’t handle having anything on the walls because if there is they are so distracted they can’t concentrate for even ten seconds. Then you’ve got somebody else who needs all the visual stimuli, who needs the interaction and when they get the noise they vocalise. Before you know it you’ve got somebody in the corner head banging because they can’t handle the over-stimulation.*

So, according to Louise, teachers could be so “challenged” trying to achieve some balance in the classroom that they had little time to focus on the communication needs of an individual student.

**Implications for speech-language pathologists (SLPs).** SLPs expressed their awareness that even though they focus on one child, they had to be “mindful” (Laura) that there were other children in the class (Keira). Keira said:

*I think one of the biggest barriers is that we come with ideas for one student but [the teacher] needs to look after five or six or 20, depending what setting it is, so you’ve got to try and be creative and work out how you can incorporate what you want to do for that one child amongst what they need to do for the whole class.*

Keira also perceived that SLPs need to be mindful that the classroom is “someone else’s domain”, and they can be disruptive if they do not incorporate intervention into the existing daily routine. Other SLPs noted that they had to be realistic about what could be achieved in some classrooms (Zina,) and not put “extra stress on the teacher” (Laura). Laura gave the example of having a teacher use two Makaton signs (Brownlie & Bloomberg, 2011; Walker, 1993), “more” and “finished” during all activities with all the children. She added: “So the teacher feels like she doesn’t have to do multiple things throughout the day. She can just do it as part of their normal activities”. Most SLPs perceived that teachers appreciated them being hands-on and actually helping in the classroom. They stated, therefore, that communication intervention and the support they could provide was limited by the classroom context.
(Keira) and other “school systemic things” (Laura). These contextual factors are discussed below.

**Peers without Disabilities**

Lara perceived that opportunities for communication in a mainstream classroom could be quite good for students with MSD: them, to help out or to look after this other child in their class who has special needs. So often they get quite a bit of attention from their peers.

However, there were no other comments made about the role of peers without disabilities. SLPs spoke more about the role of learning support officers (LSOs).

**Learning Support Officers (LSOs)**

LSOs were reported generally to be supportive for teachers in the classroom. Laura commented that: “Having very good support staff is very important”. She noted that not only were they an “extra pair of hands” for meeting the complex needs of students in the class they also supported the overall functioning of the classroom. She said:

> I know when I go into some classrooms and the regular teachers’ aide is away, you can just see that the teacher’s stress level has risen because the new teachers’ aide doesn’t know the children, doesn’t know the routine.

Having a LSO in the classroom was also reportedly supportive because “that then allows [the teacher] a bit more one-on-one time or if there is a program often it’s the aide who is able to really take ownership of that and implement that with the child” (Lara). Lara also noted that in a mainstream classroom the LSO “is usually quite good at trying to facilitate that communication”. SLPs reported observing some “amazing” (Alice) and “very capable” (Louise) LSOs who functioned like “the real teachers for these kids, they do some great work” (Louise).

However, SLPs reported variability in the LSOs they encountered. Some LSOs were reported to not be supportive for teachers. Louise commented:

> A lot depends on what sort of aides they have; the years of experience in working in the environment, the interest the aides have and the level of understanding. Some are a little bit confused [about what they are meant to be doing].

Alice observed that because of the amount of work LSOs did in the classroom their time was also limited for implementing communication programs.
Staffing

SLPs perceived that many schools had insufficient staff to student ratios in classrooms (one staff to six students, or two staff to six students) to provide students with MSD the amount of one-to-one interaction they needed (Zina, Laura). Laura noted that where there was one teacher and one LSO in a classroom, it was difficult to implement the communication programs that SLPs recommended for a client. Staffing ratios reportedly also interacted with time constraints.

The Structure of Time in the School Context

There was a consensus that “time constraints” (Alice) in the school environment were the biggest barrier for teachers to implementing communication strategies/systems with students with MSD. Louise said: “The biggest obstacle I’ve seen for teachers is that they just don’t have enough hours in the day to do what needs to be done”. As mentioned above, teachers had little time to communicate with students with MSD in the classroom because of the time required to meet all the complex needs of the different students (Lara, Zina, Louise, Laura).

In addition, SLPs noted time constraints associated with teachers being confined to the classroom. Alice commented: “I don’t think that the teachers have a lot of time outside the classroom. They’re just not allocated enough time, they don’t really have that release time” to: (a) collaborate with SLPs (Sarah, Alice), (b) program for communication, prepare visual communication systems or update high tech devices (Lara, Keira, Louise, Alice), or (c) attend courses (Keira). Sarah reported that often teachers used relief time allocated for programming for the whole class, to meet with SLPs about one student. Alice reported that schools had refused to organise release time for teachers to leave the classroom to meet with SLPs.

SLPs reported that consequently some teachers resorted to communication programming at home “in their own time” (Keira, Louise, Alice). Keira reported that: “Recently I’ve trialled a high tech communication device with a child, and the teacher was fantastic, but I know that he was doing that programming of vocabulary into this device and uploading music in his own time”. The SLPs believed that teachers should not have to do this (Louise, Alice). SLPs perceived that in addition to staffing and time limitations, teachers also experienced resource limitations.

Resources

SLPs noted that limited access to resources was a barrier for teachers (Sarah, Keira, Zina, Alice). Keira and Zina observed that teachers in some schools had no access to
resources, such as digital cameras, laminators and software like Boardmaker (Mayer-Johnson Inc, 1995-2003) that was needed to implement, maintain and update communication programs. Zina said:

> I’ve worked in schools that haven’t had a laminator. That does make it hard if you’re trying to create visuals, and if it’s simple like a meal time placemat for someone in a wheelchair, that’s going to get messy then you’re going to need to update that. So if they don’t have resources that’s going to make it harder for them.

Zina commented that lack of resources also made teachers feel “isolated” in their work. However, Alice added that SLPs often provided support, for example by “finding a switch”, “gathering object symbols”, or “taking and producing photos”. In addition, SLPs commented that staffing, time, and resource barriers were due to funding limitations.

**Funding**

Lara and Alice noted that some schools had limited funding for resources and this was an obstacle. In addition, Lara commented that because “a lot of families I work with have a low socio-economic background, they can’t afford to purchase things for the school”. So, according to Alice: “Teachers pay for a lot of their own resources in the classroom”. She also added that sometimes SLPs purchased items for a school through the petty cash facility in their offices.

**Collegiality**

In addition to limited resources, SLPs perceived that the limited opportunities in schools, mentioned in Part 2, for teachers to “debrief” (Bonnie) and “liaise” (Zina) with other teachers about specific students and their classroom context, was a barrier to implementing communication strategies/ systems (Bonnie, Keira, Zina). Lara and Alice also reported limited transfer of students’ communication programs between teachers, for example from one year to the next, resulting in communication programs not being continued. Lara commented:

> Often I’ll go into the class the next year and the teacher hasn’t got the program. It’s almost like starting from scratch again, even schools where I’m there quite frequently, for some reason it’s really difficult to get that happening.
Alice added:

If the teachers aren’t aware of what the child was doing [in the previous year], the supports that were working well the year before they can spend the first how long establishing what can work with that child, when they could be starting where the last teacher left off.

Alice reported that SLPs often facilitated the forwarding of communication programs to the next teacher. Lara also noted that “there’s no process in place” for sharing information with relieving teachers or LSOs so “that they know how to communicate with that child”. She said: “You’ll go in there and they’re not aware that that student has a voice output device or that they’re using picture symbols to request what they want at lunch time. So that can be difficult”. Zina commented that this situation made teachers feel “alone”.

**Culture and the Role of the Principal**

SLPs commented that these contextual factors were associated with the culture of a school, which was influenced by the principal. They spoke about their perceptions and experiences of the support principals provided for: (a) teachers, and (b) the involvement of SLPs in the school. SLPs reported experiences of both supportive and unsupportive school principals.

*The impact of supportive principals.* SLPs perceived that a school culture supportive of communication for students with MSD came “from the top down” (Zina) with a principal who supported individual teachers, but also created expectations for them to implement communication strategies (Zina, Laura). Lara noted that support from the principal with: (a) funding for resources and additional staff in the classroom, and (b) time to meet with SLPs and maintain communication programs “makes a big difference”. Zina perceived that with a supportive principal, teachers gained access to professional development and were willing to collaborate with SLPs.

SLPs also reported that supportive principals enabled them to be “involved at the whole school level” (Louise), as described in Part 3. Louise recalled:

The principal said: “Would you mind coming and talking to the whole staff room about cerebral palsy and what changes you’ve made in the kindergarten classroom, and how that’s helped her access all the different areas of the curriculum that she needs to access?”
Louise recalled that she and the teacher reporting back on one student in one class had a positive impact on all the teachers’ involvement with SLPs in the school. She said: “That was a positive experience that came from a principal being really supportive and inviting us to take part in school activities”.

**The impact of unsupportive principals.** The teachers in SSPs whom Bonnie and Louise described in Part 1 as “burnt out” were not supported by the principal with debriefing, resources or additional support in the classroom for particular clients. Zina observed that the culture of a school was influenced by “the morale of the teachers” which was in turn influenced by how well supported teachers felt. She added: “When they’re not supported they’re just really worn out”. Alice reported that some principals did not see communication education for teachers as a priority and never asked teachers about their support needs, including their need for support from SLPs.

**Focus on communication and the participation of students with MSD.** The SLPs also reported that, the culture of a school had a “huge” (Louise) impact on opportunities for communication for students with MSD and what SLPs could do in the school (Louise, Laura, Alice). They reported that the cultures of different schools varied (Alice). Louise observed that some schools seemed to focus on deficits in students and took the attitude that they could not accommodate them. She also talked about individual teachers who wanted to do more to facilitate the communication of students with MSD, but could not within their particular school.

Other schools were reported to be “more positive” (Louise) because “the culture is there of ‘we want to provide every opportunity that we can to promote their goals’” (Louise). Laura noted that a positive school culture enabled SLPs to work in innovative ways within the school. She gave an example of conducting regular drop-in clinics at one SSP, and concluded that SLPs’ involvement at the whole school level contributed to communication being a focus at that school.

A whole school focus on communication could, however, have disadvantages if a school used one particular communication intervention for every child to the exclusion of other approaches. Laura and Alice talked about SSPs that had funded all their teachers and LSOs to attend a Picture Exchange Communication System (PECS) (Bondy & Frost, 1994) course. Laura reported that subsequently “that’s all they see” as “the answer for every child”. Alice added that, in these schools, SLPs have not been able to implement object choices as more appropriate communication supports for some students with MSD. Alice stated: “That actually becomes a difficulty and an
obstacle in itself because the school, the executive is pushing PECS across the school and then they’re not open to anything else”.

**Inappropriate Practices**

In schools where teachers were not supported, SLPs reported that they sometimes observed inappropriate practices. Bonnie described a teacher who used physical intervention with a student: “Very hands on kind of grabbing at him to direct him places”, and who “just did things for him” without communicative interaction. SLPs perceived that factors in the different contexts in which communication intervention and collaboration took place were further influenced by broader organisational policies, procedures and philosophies. These are discussed in Part 5.

**PART 5: GOVERNMENT DEPARTMENTS**

SLPs identified supports and obstacles associated with the government department employing them, the state education system and other services. These are represented in Figure 6.1 by the concentric circle surrounding Contexts, and are summarised in Table 6.8. Recommendations for service delivery are summarised in Table 6.9.

| Table 6.8 |
|---|---|---|
| **Supports and Obstacles Associated with Government Departments (Stage 3)** |
| **Factors** | **Supports** | **Obstacles** |
| Department employing speech-language pathologists (SLPs) | Supervision. | Service delivery model: time frame for service requests, consultative model. |
| | Culture of multidisciplinary co-operation. | Separate processes of each discipline: prioritization systems and waiting lists. |
| | Funding for families with low-socio-economic status. | The prioritization system: service requests re communication for students with MSD are low priority. |
| | | Long waiting lists. |
| | | Staff shortages. |
| | | Physical location: not being based at schools. |
| | | Changes in school enrolments and lack of support for teachers. |
| | | Limited supports for implementing AAC. |
| State education system | | Difficulty accessing medical and other health professionals when needed. |
| Other services | | GPs not explaining child’s disability to families. |
Government Department Employing Speech-Language Pathologists (SLPs)

SLPs identified both supports and obstacles, to their work with students with MSD, associated with their government department. Many of the organisational supports for SLPs have been mentioned in previous sections: supervision with senior SLPs and attendance at courses (Part 2), and the culture of multidisciplinary co-operation (Parts 2 and 4) that reportedly permeates the whole organisation. An additional organisational support was the “different types of funding available” for “low socio-economic status families” to purchase resources such as cameras and laminators to enable the families and schools to support the child’s communication (Keira). The obstacles identified by SLPs included: (a) aspects of the service delivery model, (b) separate processes of each discipline, (c) the prioritization system, (d) the waiting list, (e) staff shortages, and (f) physical location.

The Service Delivery Model

SLPs identified the time frame allocated to service requests as an obstacle (Bonnie, Zina, Keira, Louise). Bonnie said: “I find that the time factor is a big issue, we only get three to six months to work with clients”. These “time constraints” (Zina) were viewed as “unrealistic” (Louise) for working with students with MSD. Keira reported that she saw clients between two to ten times and commented “it’s not long enough”: (a) to get to know students with MSD and understand their communication needs (Sarah, Bonnie, Keira), and (b) to collaborate with their teachers and families across school and home contexts (Bonnie, Keira). Lara said:

The pressure to offer a time-limited service is hard because the people that we are working with have lifelong impairments that require long term support.

With students with multiple and severe disabilities it can be a gradual process in terms of making any change or seeing any improvement in their communication.

SLPs expressed the view that they could not work with clients as long as they judged necessary (Zina, Louise, Keira, Lara). Louise added: “These are people and in a perfect world I would not have time frames I would like to come to the natural conclusion and then pick them up again”.

SLPs also believed that the resultant “consultative model” limited the support they could provide for teachers. It did not allow for the frequent “incidental”, “10 minute conversations” (Louise) during which SLPs and teachers could “check in with each other” (Louise) and share ideas. Nor did it allow for problem solving the next
step that enabled teachers to continue communication programs including after the
service request was closed (Louise, Lara). Alice noted that there was also insufficient
time to support the continuity of communication programs (Alice). She said:

_We’re only allocated for a short period of time and our hope is that the
teacher who has been using those supports will hand that over, rather than it
coming back to us for a request for that same assistance which the child has
already received._

**Separate Processes of Each Discipline**

SLPs also perceived that while the multidisciplinary culture was an advantage, the
separate prioritization systems and waiting lists of each discipline could be an
obstacle. Zina described the common scenario where SLPs and psychologists
provided input for the same client issue, but 6 to 12 months apart. Lara noted, as
mentioned in Part 4, that there were so many therapists of different disciplines going
into SSPs, that teachers could have to deal with multiple therapists simultaneously for
different children in their class. Louise said:

_So you might have six children in a class and the teacher has to deal with
three speech pathologists because the children live in different geographical
areas and they’re different teams so there are different therapists allocated or
they’re allocated as they get picked off the list._

Lara perceived this as “tiring” and difficult for teachers to implement all the different
recommendations, particularly if different SLPs did not continue strategies that had
been previously put in place.

**The Prioritization System**

There were other reported obstacles associated with the SLP prioritization system.
Zina noted that because service requests for “swallowing, eating and drinking and
then challenging behaviours” were given the highest priority, those regarding
communication for students with MSD “are going to be sitting on a waiting list for
longer”. She perceived that the prioritization system meant that services were not
responsive to supporting students and teachers through transitions. She said: “Every
child should be going to a new class or a new school with some sort of
communication system so everybody knows how to interact with the child”.

Consequently, there were reportedly very few service requests for older students with
MSD at high school and Zina perceived that there was a need to educate teachers and
families about “where to make referrals for the older kids while they’re still at high
school because they need the support too from primary to high school and then from high school to where ever they’re going after school’.

The Waiting List

SLPs also commented that the number of children on the waiting list was a barrier (Keira, Alice). Alice reported that by the time many service requests were actioned, the client had a different teacher to the one who made the referral and it was no longer appropriate. She also commented that collaboration was more likely to succeed when service requests were actioned with the teacher who made them, but that this was very difficult to organise. She said that: “Planning with the team about how we can be providing that consultation at the time that teachers are desiring it and wanting to implement it proved difficult, actually”.

Staff Shortages and Physical Location

The final two obstacles identified by SLPs were: the “recurring vacant positions that increase speech pathologists’ workload and frustration” (Lara), and their “physical separation from the school” (Alice). With regard to the second factor, Alice commented: “I need to book an appointment. I need to book a car. I need to travel out there, hope the student’s there. I can only see the students that are allocated at any one time”. She elaborated that sometimes teachers ask her to “look at” another child while she is there but she avoids doing so because “the system is not set up to work that way. The system is the greatest obstacle for me”. SLPs reported that there were also aspects of the state education system that presented obstacles for supporting the communication of students with MSD at school.

State Education System

SLPs related experiences about: (a) changes in schools, and (b) limited support for AAC.

Changes in Schools

Laura reported a change that was imposed by the state education system on a particular school without consulting the teachers. The school began enrolling students with MSD, which they had not previously done, without any additional supports for the teachers. Laura said:

I don’t think that there has been any extra training for the staff or any extra resources or provisions to support that big change because it’s going to be a big mind shift for the teachers. That’s frustrating when the teachers aren’t
being supported in such a big shift in the school focus. I wonder what it’s been like for the rest of the school community, whether the children with disabilities have been accepted. The lack of support that I experienced for these teachers in regard to communication interventions - I’m not sure what the school vision is for incorporating those students into their school.

Zina also recalled teachers in a mainstream setting attempting to support a student with MSD when they had never encountered such a student and had little access to professional development. Laura perceived that the state education system’s lack of support for schools in this situation was an obstacle to implementing communication intervention for the students with MSD who were enrolling there. SLPs particularly noted barriers associated with implementing AAC.

**Limited Support for AAC**

Louise recalled that the state education system had recently funded assessments for high-tech devices at an SSP. Following two students in a class being deemed appropriate for devices, their teacher then had to undertake the time-consuming process of arranging the trials. Louise stated: “It was absurd. I know full well what the hours of commitment are for a high-tech trial”. According to Louise: “She [the teacher] was taking [the devices] home and working on them till 12 o’clock at night. They have two different devices and she’d never worked with a high tech device before”. Louise commented that the state education system “did not put supports in place” for these high-tech trials, and that it was “just ridiculous. There’s no way she could do that; two at the same time. You can shoot yourself!” Louise perceived that this teacher needed a SLP working in the classroom with her, or a relief teacher to take her class while she set up the devices. In addition to the state education system, other organisations and service systems were identified as presenting obstacles.

**Other Services**

Half the SLPs also spoke about issues associated with medical and other health services. Zina noted that often students with MSD had complex healthcare needs, for example associated with non-oral (enteral) feeding, and “being able to link into other support networks such as disability specialists or dieticians” was important. Alice also noted the need to liaise with medical professionals regarding clients’ medications. However, they stated that accessing these services could be a barrier, particularly at the time when the SLP was involved with a child.
Louise also raised issues about some general practitioners not explaining to families what their child’s diagnosis meant. She said:

They’re not very good at filtering down to parents that information about what severe communication impairment is or that a pervasive developmental disability is going to be a life-long disability. I think that needs to be communicated early on to parents and if it’s delivered by the GP or the paediatrician, someone who most parents see as being like an expert or an authority figure, it would help parents to set more realistic expectations when they come to see a speech pathologist.

Recommendations for Service Delivery

As well as identifying supports and obstacles, SLPs made a number of recommendations for improving service delivery to students with MSD. These are listed here because they have implications at the organisational level, and are summarised in Table 6.9. SLPs made recommendations about: (a) collaborative practice, (b) service request processes, and (c) building capacity in schools.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Collaboration</td>
<td>Greater co-operation between government departments.</td>
</tr>
<tr>
<td></td>
<td>More support and organisational guidelines for collaboration.</td>
</tr>
<tr>
<td>Department employing speech-language pathologists (SLPs)</td>
<td>Service request processes. Develop strategies for responding to service requests when they are made.</td>
</tr>
<tr>
<td></td>
<td>Targeting supporting transitions, eg from primary school to high school.</td>
</tr>
<tr>
<td></td>
<td>Providing additional support to teachers new to students with MSD.</td>
</tr>
<tr>
<td></td>
<td>Building capacity in schools. SLPs work with whole group and classroom context.</td>
</tr>
<tr>
<td></td>
<td>SLPs to be based in schools.</td>
</tr>
<tr>
<td>State education system</td>
<td>Building capacity in schools. State education system to provide more support for teachers.</td>
</tr>
<tr>
<td></td>
<td>One or more teachers in each school up-skilled to be disability support people for the school.</td>
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</tbody>
</table>

Collaboration

The group recommended more formal, organisational support for collaboration between SLPs and teachers. Lara said: “If there were stronger links from higher up
[that would] help with collaboration, even stronger guidelines around the development of an IEP for a student” so that it becomes the basis of a plan for SLPs and teachers to work together. Bonnie called for the state education system to educate teachers about the role of SLPs and how they can provide support in the classroom. SLPs noted that the current limited co-operation between government departments resulted in collaboration being left up to individuals. Lara said: “It’s very much at the ground level”. This was viewed as an obstacle because it did not necessarily work. Bonnie added: “We do need to work more closely because communication and education are so inter-related. It should just be a given that those two things are so closely knit that we should just work well together but we don’t”.

However, Keira, Louise and Alice noted that attempts were being made at the organisational level to improve collaboration between SLPs and teachers. Keira said:

The senior speech pathologists and managers have been meeting with one school at the moment, but we’re going to do a pilot and expand that to four of the SSPs in another local government area that have the highest number of service requests so we can tailor our speech pathology service more effectively because there are obstacles and barriers at the moment [to work out] how we can work with them better, because in the end that’s going to help the child communicate better and that’s both our goals.

She concluded by saying: “I hope that in the future we can have some clearer guidelines as to how we can collaborate better”.

**Department Employing Speech-Language Pathologists (SLPs)**

**Service request processes.** Recommendations were also made to design ‘a better way of approaching the waiting list from our end” (Zina). Zina stated that work needed to continue on ways:

To be able to touch base with the teachers at the time their request is made and see is it something I can support you with now as it’s not going to be too time consuming and it’s going to make your life a lot easier and help the child.

Laura and Alice reported that their organisation had been exploring ways to provide some support to children on long waiting lists, for example monthly drop-in clinics at which teachers could make appointments to discuss the difficulties they were having with their student. However, Alice reported that this met with resistance from some schools. Another recommendation was to target particular stages or “major transitions” (Zina) for both students and their teachers, including “supporting that
transition from primary school to high school” (Zina), and being able to provide additional support to teachers who are new to working with students with MSD.

**Capacity building in schools.** SLPs recommended ways that their service could support capacity building in schools. Alice recommended that SLP services include every child in the classroom, so as to support the teacher to program for the whole group and classroom context, rather than focusing on one individual in the room. There was consensus that the “gold standard” (Bonnie) for achieving needed improvements in service delivery was for SLPs either to have a regular presence or be based in schools, as occurs in other states of Australia such as Queensland and Victoria. Louise and Bonnie suggested that there needed to be at least one SLP based in every school for one or two days per week, and that in addition SSPs “need their own team of professionals; speech pathologists, OTs and psychs” (Bonnie). This recommendation was associated with a number of perceived benefits: (a) developing rapport and personal relationships with teachers so that “they don’t feel threatened” (Bonnie), (b) “becoming part of the team” (Bonnie, Alice), “belonging there” (Alice) rather than “being a separate entity” (Bonnie), (c) enabling SLPs to understand the demands and routines of the classroom and school environment (Bonnie, Louise), (d) making it more likely that collaboration will happen, even for “resistant” teachers (Louise), (e) enabling SLPs to observe communication in context (Alice), (f) enabling teachers to ask SLPs “incidental questions” (Louise), and (g) enabling regular monitoring, modifying and maintenance of communication strategies as needed (Keira).

**The State Education System**

SLPs also recommended ways that the state education system could build the capacities of schools to meet the communication needs of students with MSD. Following the discussion in Part 2, SLPs recommended that the state education system provide more support for their teachers through: (a) supervision or mentoring, (b) opportunities to meet with other teachers, and (c) increased time and funding to access in-services/workshops. This included debriefing for teachers supporting; “very challenging, confronting, unpredictable kids everyday”, and their parents “who are often not coping” (Louise). It also included attending “interest or support groups”, and visiting other schools, in the local area for professional development (Louise). Louise said:
Even those teachers that are in support units at a mainstream school, why can’t they walk down the road to the special school and spend a day learning from some of the more experienced teachers there, meeting with them?

SLPs also recommended that relevant professional development occur for staff at the school, during the school day (Laura). Finally, Louise recommended that the state education system “up-skill” one or more teachers at each school to be the “communication experts” or “disability support people” for that school. She said: “it would be great to have a teacher who’s just there as the disability co-ordinator for the school”.

Whilst making recommendations at the government level for progressing access to communication for students with MSD, SLPs were also aware of some broader issues, discussed in the final part.

PART 6: SOCIETAL FACTORS

This final section contains SLPs’ perceptions of community attitudes towards AAC, and professional discourses about the role of the education system in promoting social inclusion. The issues identified are represented in the outermost concentric circle by Figure 6.1 and summarised in Table 6.10.

Table 6.10

<table>
<thead>
<tr>
<th>Supports and Obstacles at the Societal Level (Stage 3)</th>
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<tr>
<td>Factors</td>
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<tr>
<td>Community attitudes</td>
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<td></td>
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<tr>
<td>Professional discourses about inclusion</td>
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</table>
Community attitudes
A few SLPs lamented a lack of awareness in the general population about different forms of communication and the importance of having a way to communicate effectively (Laura, Keira). Laura reported that she had observed this amongst parents, in the education system, and among staff in other facilities such as respite services. Keira and Laura reported “misconceptions” or negative perceptions of AAC and the perception that speech is the only legitimate or valid form of communication. They encountered these attitudes as obstacles to facilitating communicative interactions for young people with MSD.

Professional Discourses about Inclusion
The two SLPs with experience supporting students with MSD in mainstream educational settings shared their perceptions of discourses about the ability of these settings to include students with MSD. Louise recalled a client with MSD whose family did not like the SSP in the area and wanted him to go to the local mainstream high school. Louise noted: “The school put in everything they possibly could to help him”. This included ramps, a touch screen laptop, switches and a full time LSO. She reported that the principal and staff at the school were “fantastic”, and that they met with her and the occupational therapist to develop goals jointly for the student. She commented that the student was having social interaction with the other students who approached him in the corridors between classes and gave him “high fives”. She also perceived that it was beneficial for the other students to “be open to people with disabilities”.

Louise recalled, however, that “he would start vocalising” during mainstream classes and this was “distracting” for the “other 29 kids in the classroom”. Both she and the occupational therapist reportedly believed that this student’s educational needs would have been better accommodated at the SSP in the area. She said:

I just couldn’t understand the amount of money and effort that was pumped into this child to make him be able to stay at this mainstream school. [It] seemed absolutely ludicrous when the special school down the road actually have all these things already there and he would have been more appropriately placed in terms of having teachers that understood disability. At the end of the day the extra time these teachers were putting into this one child
to up skill themselves and the child still wasn’t getting the educational standard that we wanted for him.

Louise noted that the child’s type of disability determined the most suitable educational setting and she had not yet seen mainstream settings “work” for students with MSD. However, she also expressed the view that it was important for students without disability to have opportunities to interact with peers who have disabilities. She said:

*If you could have a support unit in every school I think it’s really important for the normally-developing kids to have interactions with people with disabilities as they grow up. There are so many people who, as adults, have never met anyone with a disability and I find that appalling and I think growing up with a friend, a playmate, a companion at school who has a disability makes you more aware as an adult and I think it’s a really important part of education.*

**SUMMARY**

This chapter has presented the perceptions and experiences of SLPs in metropolitan areas, in relation to their support of the communication of students with MSD. Like the teachers, they identified a broad range of factors perceived to support or hinder access to communication for students with MSD. SLPs spoke about the nature of communication intervention with students with MSD, and the centrality of collaboration with both their teachers and families. They gave a perspective on the home context as another place where communication intervention took place and the influence of family issues, such as cultural differences and low socio-economic status. They spoke about how communication intervention and collaboration were influenced by the different levels of contextual factors, as represented in Figure 6.1. Because they worked across the range of educational settings, they were able to provide some comparison of the influences on communication and swallowing intervention and collaboration in different school contexts. However, they perceived that cultures of schools varied, regardless of the type of educational setting. They also gave their perspective on the supports and obstacles to SLP service delivery for students with MSD, and made recommendations for its improvement, including basing SLPs in schools.
In the next chapter, the perceptions and experiences of SLPs in regional, rural and remote areas are presented. As professionals based in relatively isolated offices, travelling long distances to visit students with MSD in their schools and homes, they provide perspectives on the constraints of geographical location. They identify the myriad ways in which geographical isolation interacts with all the other factors perceived to support or hinder communication intervention for students with MSD.
CHAPTER 7
STAGE 4 RESULTS: SPEECH-LANGUAGE PATHOLOGISTS IN REGIONAL AND RURAL AREAS

This chapter presents findings for speech-language pathologists (SLPs) in regional and rural areas, some of whom provided an outreach service to students with MSD in remote areas. The chapter is divided into six parts, reflecting similar themes to those for SLPs in metropolitan areas, reported in the previous chapter. However, it also presents findings specific to this group of participants, particularly the influences of geographical location that permeate and have implications for all other themes. These themes are represented in Figure 7.1. Part 1, Personal Journeys, includes family characteristics, as well as those of students with MSD, teachers and SLPs. Parts 2 and 3 have the same headings as Chapter 6, except that the home context is featured in Part 4, Interactions with the Context. Part 5, The Tyranny of Distance: The Impacts of Geographical Location, represents the major difference between this chapter and the previous chapter, and includes community attitudes. Part 6, The Role of Government, Social policy and Legislation, includes recommendations for service delivery and change. The categories of time and change are represented in Figure 7.1 as crossing all levels, and their effects as supports or obstacles are discussed in different parts of the chapter. The chapter concludes with a summary.

PART 1: PERSONAL JOURNEYS
The SLPs in this group had from 1.5 to 11 years experience working with students with a range of disabilities. Three were in senior/supervisory positions. Regardless of their amount of experience, they found supporting the communication of students with MSD “challenging” (Caitlin, Kirsty, Dianne), “difficult” (Karen), and “daunting” (Dianne). Dianne said: “It’s daunting to begin with -it’s really scary. Now, even after all this time, I find it such a challenge”.

Yet, they also reported finding it “really rewarding” (Caitlin, Chloe) and “enjoyable” (Nadia). Nadia said: “I love it”. Dianne added:

On those days that you try something and it works, it is absolutely brilliant. It is like you’ve won the lottery. When somebody can do something that they couldn’t do before because you’ve added some new thing…..I never get sick of it!
The SLPs spoke about a range of influences on their experiences, and identified supports and obstacles to communication access for students with MSD. They began
with the characteristics of individuals; students with MSD, their main communication partners and the SLPs themselves. These are represented at the level of individuals by the four innermost circles in Figure 7.1, and are summarised in Table 7.1.

Table 7.1
**Supports and Obstacles at the Level of Individuals (Stage 4)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Students’ characteristics</strong></td>
<td>Intellectual and physical impairments. Limited communication behaviours.</td>
<td>Slow progress in intervention. Students’ “silence” (Dianne) can result in limited interaction, under-stimulation, depression and under achievement.</td>
</tr>
<tr>
<td></td>
<td>Difficulty identifying communication.</td>
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<td></td>
<td>Difficulty establishing means of communication.</td>
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<td></td>
<td>Slow progress in intervention.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students’ “silence” (Dianne) can result in limited interaction, under-stimulation, depression and under achievement.</td>
<td></td>
</tr>
<tr>
<td><strong>Families’ characteristics</strong></td>
<td>Perceiving communication as “extra work”.</td>
<td>Lacking motivation, or not prioritising communication intervention.</td>
</tr>
<tr>
<td></td>
<td>Mising motivation, or not prioritising communication intervention.</td>
<td></td>
</tr>
<tr>
<td><strong>Teachers’ characteristics</strong></td>
<td>Knowledge and skills for interacting with students and involving them in activities.</td>
<td>Limited knowledge and skills for supporting participation of students with MSD.</td>
</tr>
<tr>
<td></td>
<td>Positive attitudes, perceptions and beliefs: that all students can participate.</td>
<td>Teacher burn out.</td>
</tr>
<tr>
<td></td>
<td>Believing that it is the teacher’s responsibility to support students’ communication access.</td>
<td>Negative attitudes, perceptions and beliefs: low expectations of students, or that students with MSD cannot enhance their communication skills.</td>
</tr>
<tr>
<td></td>
<td>Willingness to try new strategies.</td>
<td>Not perceiving supporting students’ communication as their role.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unwilling to try new strategies.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative perceptions of SLPs.</td>
</tr>
<tr>
<td><strong>Speech-language pathologists’ (SLPs) characteristics</strong></td>
<td>Personal characteristics: grew up in the town where they work.</td>
<td>New graduates’ limited knowledge, skills and experience with students with complex needs, and collaboration.</td>
</tr>
<tr>
<td></td>
<td>Positive attitudes, perceptions and beliefs that: (a) SLPs are not “the experts”; and (b) students with MSD have the capacity to enhance their communication skills.</td>
<td>Specialised knowledge and skills required.</td>
</tr>
</tbody>
</table>


**Student Characteristics**

SLPs identified barriers to the communication opportunities of students with MSD associated with: (a) students’ intellectual, physical and communicative characteristics, and (b) the responses of their main communication partners.

*Students’ Intellectual, Physical and Communicative Characteristics*

SLPs commented that “while every client you see is different” (Nadia), their intellectual, and physical impairments and limited communication behaviours made it difficult “to actually pick up on some communication” (Mandy). Mandy said: “The students themselves can be very overwhelming”. SLPs consequently reported difficulty finding ways for the students and their potential communication partners to communicate with each other (Caitlin, Dianne). Hence, SLPs reported that progress with communication intervention tended to be very slow (Caitlin, Mandy, Clare), and often teachers and families became “discouraged” (Clare). SLPs also spoke about how potential communication partners responded to students with MSD.

*Responses of Communication Partners*

SLPs noted that because students with MSD were “quiet” and “don’t make a fuss” (Chloe), they tended to be overlooked and not receive the communication support they needed. Dianne talked about the subsequent effects on students of limited stimulation and interaction. She observed that students became “passive” and did not achieve their potential as learners or communicators. She said:

> Many of our students with lack of stimulation or lack of communication skills either zone out or act out. People with profound and multiple disabilities do not look like they have potential because many of them are depressed and they’ve just tuned out. If you don’t get a glimmer of what this person has, then it’s easy to think “we’ll wipe their face, put their clothes on, get them toileted” and think you’re doing your job because you don’t see their potential at all.

SLPs identified families and teachers as important communication partners for students with MSD. Their perceptions of families’ and teachers’ characteristics that influenced communication with students with MSD are presented below.

*Families’ Characteristics*

While SLPs emphasised that families were important communication partners for their children with MSD, they also reported that many families did not perceive communication as part of their daily activities. SLPs reported that many families
perceived supporting their child’s communication opportunities as “extra work” that was “too hard” to incorporate into the home (Clare). Chloe noted that many families “did not want to be a therapist as well”.

SLPs perceived that many families in regional, rural and remote areas, in particular, lacked motivation and “self direction” (Karen), or did not prioritise communication and swallowing intervention. Karen described having to cancel a Hanen Program (Manolson, 1992; Watson, 1997) due to an insufficient number of interested families, whereas “metropolitan families are paying $1000 per child for their children to be involved in a program like that”. Nadia also gave an example of working for 2 years to persuade a family to take their child with “huge dysphagia issues” to have a modified barium swallow (MBS) procedure to investigate severe swallowing dysfunction.

The SLPs found varied family attitudes towards children with MSD, particularly in Aboriginal communities, discussed in Part 5. However, SLPs also perceived that there were broader influences on families’ attitudes and their ability to support their children’s communication needs. These included: pressures in the home (Part 4); geographical isolation (Part 5); and limited access to SLP support (Part 6). The impacts of families’ attitudes on communication intervention for their children are further elaborated in Part 3.

Teachers’ Characteristics
SLPs also talked about teachers’: (a) knowledge and skills, and (b) attitudes, perceptions and beliefs. The perceived impacts of these factors on communicative interactions with students with MSD are summarised in Table 7.1.

Teachers’ Knowledge and Skills
SLPs reported variability in teachers’ knowledge and skills for supporting the communicative interactions of students with MSD. Chloe commented: “It’s the same wherever you go; you have great teachers and you have not so great teachers”. They recalled teachers who had “incredible” skills (Mandy), who were “so tuned in” to students with MSD (Mandy) and ran “brilliant” classrooms (Nadia). Nadia recalled: “The best support class I’ve ever worked in was in a [rural town]. It’s just brilliant and a real credit to the teacher”. Mandy acknowledged that such teachers may have more knowledge than SLPs. Mandy recalled of one teacher:
It’s so exciting to be in that classroom, there’s so much going on but it’s also quite intimidating to come in as supposedly someone who knows about communication when she really knows heaps more about communication at that level than I do.

However, SLPs also talked about teachers whose limited knowledge and skills presented barriers to communication access for students with MSD. They recalled teachers with limited knowledge about their students’ impairments and how to teach students with such complex needs (Kirsty, Dianne). Kirsty stated that teachers’ limited knowledge made it very difficult to begin working on communication access for students. She stated:

> When I make a communication suggestion, that issue comes up. For example, [the teacher says] “Oh we don’t want him to be able to tell us when he wants food because we’ve got set mealtimes”. At that point, I think: “I can’t even see a starting point here” because the starting point is out of my realm of expertise. The starting point is back at the teacher’s skills and knowledge about education, not about communication; it’s just about participation and education.

Clare and Mandy also spoke about teachers who had been at their schools for many years yet seemed “out of their depth” (Mandy). In addition, SLPs observed that some teachers were “exhausted” (Clare) and appeared to operate on “autopilot” (Mandy, Dianne). They perceived that teachers who were “burnt out” (Mandy) had little to offer students with MSD. Mandy said: “That room for creativity and change is so limited when people are tired and just coping”. Dianne added: “What many people are doing is just getting through the day”. SLPs perceived that teachers’ limited skills and knowledge and burnout were due to a number of factors, including limited access to professional development (Part 2), their school context (Part 4), geographical location (Part 5) and the state education system (Part 6).

**Teachers’ Attitudes, Perceptions and Beliefs**

SLPs also reported variability in teachers’ attitudes toward: (a) students with MSD, (b) their responsibility as communication partners, and (c) collaborating with SLPs.

**Teachers’ attitudes towards students with MSD.** SLPs stated that teachers’ negative attitudes or beliefs about students with MSD presented barriers to the students’ participation. Kirsty reported that some teachers had low expectations for students with MSD. She said: “Often I feel like they set extremely low expectations
for the students and consequently they’re never looking to do more with that student. Often it would appear that their main priorities are just that the students seem happy”. She perceived that, consequently, teachers made limited efforts to facilitate the participation of students with MSD in classroom activities. She added: “So when you are talking about children with very profound and complex disabilities, often those children are being completely excluded from activities because the teacher’s attitude is ‘well, they can’t participate’

Similarly, Clare reported that some teachers believed the communication skills of students with MSD could not be enhanced “and unfortunately some people think it’s easier to just leave them there [with no interaction]”. Chloe and Dianne also talked about teachers who perceived students as “attention-seeking” or “naughty” and so either ignored them or responded negatively.

Yet, SLPs also reported that teachers with positive attitudes towards their students enabled participation in activities and communication access in their classrooms. Dianne stated: “The teachers who are good at it see the child as a person”. Kirsty added: “The best and most communicative classrooms really come down to the attitude of the teachers. Some teachers ensure that every student is having an opportunity to participate, regardless of their level of disability”. Mandy added that such teachers were prepared to “think outside the box” and consequently achieved positive outcomes for students with MSD.

Teachers’ perception of their role as communication partners. SLPs noted that teachers’ perceptions of their own responsibility for supporting the communication of students with MSD influenced students’ access to communication in the classroom. Kirsty said:

Some teachers recognise that communication is part of their everyday work with the child and get far more successful outcomes for the student. With teachers who don’t see working on a student’s communication as their role, it can be extremely difficult to achieve any positive outcomes for the student. Caitlin noted that, consequently: “The teacher’s willingness to try different communication strategies” determined the extent of communication access for students with MSD in the classroom. Dianne, Caitlin, Mandy and Karen noted that those teachers most willing to try new activities and communication strategies tended to have positive attitudes towards overcoming obstacles associated with their students’ impairments. Mandy said of one teacher: “She has that willingness to take
on what I might have to offer and that attitude that we can get over these obstacles. We’ll find a way around it; we can do this, which is quite inspiring”. The impact of teachers’ attitudes, perceptions and beliefs on collaboration with SLPs is discussed in Part 3.

Other teachers were perceived to be unwilling to try new ideas and to change practices in their classrooms. Karen and Nadia perceived that teachers who had been teaching for many years could be “stuck in patterns” (Karen). Nadia commented:

Some of the teachers I work with have been on the same support class in the same school for 30 years. So they’ve been doing exactly the same thing and think: “Why should I change what I’m doing because that’s the way I’ve always done it?”

SLPs perceived that influences on the attitudes of individual teachers included their access to professional development (Part 2), socio-professional discourses (Part 3), their school’s culture (Part 4), and the education system (Part 5). SLPs commented that such attitudes could also reflect teachers’ perceptions of SLPs.

Teachers’ responses to speech-language pathologists (SLPs). SLPs reported responses from teachers that they interpreted as evidence of negative perceptions. The SLPs perceived that teachers’ negative perceptions presented barriers to communication intervention for students with MSD. These included teachers’ perceptions that SLPs: (a) would not provide any useful input (Caitlin), (b) would “give them too much extra work” (Caitlin), and (c) were “intimidating” (Caitlin) and “judging” (Caitlin, Dianne). Dianne commented that in some schools, teachers feared that SLPs might “report” them to welfare agencies. She added: “If there’s a bit of chaos in a classroom or if somebody’s acting out, people really do not want a therapist in there because they are concerned that it could bounce back on them”.

SLPs also spoke about the influence of their own personal characteristics on supporting the communication of students with MSD.

Speech-Language Pathologists’ (SLPs) Characteristics

Three SLPs talked about personal characteristics perceived as advantages for their work. Other SLPs also talked about their experience, knowledge, skills, attitudes, perceptions and beliefs.
Speech-Language Pathologists’ (SLPs) Personal Characteristics
Three SLPs reported growing up in regional or rural towns where they were now working. They perceived this as an advantage because of their local knowledge and the more positive attitudes of local people towards them, issues taken up in Part 5. Caitlin said: “I know all of the towns that I visit. I’ve got a relationship with them already because I grew up here. I understand some of the issues that they are having”.

Speech-Language Pathologists’ (SLPs) Experience, Knowledge and Skills
As a group, the SLPs reported variable experience, knowledge and skills working with students with MSD. As a senior SLP, Kirsty commented that this was dependent upon: (a) the number of years the SLPs had been working, (b) their location and whether or not there was a special school in the area, and (c) who was on their waiting list. She commented that some SLPs had not seen many clients with profound or multiple disabilities.

New graduates. Chloe commented as a supervisor: “Because country areas have difficulty with recruitment and retention of staff, a lot of our staff can be new graduates”. She perceived that their limited experience could be an obstacle when working with such complex students and collaborating across different contexts. She commented that “they [the new graduates] take to heart” the negative attitudes of some teachers, and are “unfamiliar with the system” and “the different cultures of different schools”, issues discussed further in Parts 3 and 4.

Specialised knowledge and skills. SLPs acknowledged that supporting the communication of students with MSD is a specialised field. Mandy reported that, as a SLP with many years experience in another field, “the communication [with students with MSD] is a really big field for new learning”. Chloe noted that, while more experienced therapists had developed reflexive practices and the ability to identify external barriers, they still “expected not to know everything”. SLPs talked about their attitudes, perceptions and beliefs, below, and the importance of professional development, presented in Part 2.

Speech-Language Pathologists’ (SLPs) Attitudes, Perceptions and Beliefs
SLPs described two enabling attitudes important for their work in supporting the communication of students with MSD. These were: (a) SLPs are not “the experts” and parents, teachers and other professionals contribute to communication intervention (Mandy, Chloe), and (b) every person, including those with the most profound
disabilities, has strengths and the right and capacity to not only communicate but to enhance their communication skills (Chloe, Kirsty, Dianne). Chloe said: “There’s not a single person who I’ve seen that I’ve thought ‘oh there is just nothing that we can do to work with this person or to support this person’”. SLPs perceived that their own attitudes were influenced by an emerging socio-professional discourse about people with disability (Part 3) supported by their organisation (Part 6). Below, the influence of access to professional development on their own and teachers’ knowledge, skills and attitudes is discussed.

PART 2: PROFESSIONAL DEVELOPMENT

SLPs talked about their experiences of professional development, and their views on teachers’ access to professional development, as summarised in Tables 7.2 and 7.3. This process is represented in Figure 7.1 as interacting with factors at a number of levels.

Speech-Language Pathologists’ (SLPs) Professional Development

SLPs discussed their: (a) pre-service education, (b) access to continuing professional education, (c) senior supervision and mentoring, and (d) networking with other SLPs.

Table 7.2
Supports and Obstacles Associated with Speech-Language Pathologists’ Professional Development (Stage 4)

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service education</td>
<td>Increasing course content about disability.</td>
<td>Inadequate content about disability</td>
</tr>
<tr>
<td>Continuing education</td>
<td>Ample access to continuing education</td>
<td>Isolated geographical location.</td>
</tr>
<tr>
<td>Supervision and mentoring</td>
<td>Supervision with a senior SLP.</td>
<td>Few opportunities to practise knowledge and skills acquired.</td>
</tr>
<tr>
<td>Networking with other SLPs</td>
<td>Informal meetings and sharing knowledge.</td>
<td>Isolated geographical distance between senior SLP/supervisor and SLPs.</td>
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</tbody>
</table>

Pre-Service Education

Karen and Chloe commented that their undergraduate SLP education had inadequate content about disability, so that they felt underprepared to work with students with MSD. Karen said: “You really don’t learn enough about disability to get you through just from your university degree”. Chloe added:
“Disability” can be very different from what we were taught at university. So while we had a small component at university that talked about disability, it was a huge shock to step out into real life with [government department] and be expected to be the expert around areas like communication.

However, Chloe also reported changes in the content of SLP undergraduate education at one regional university. She said:

*They have sessions where parents of children with disability come in so they’re letting them know about other issues that are happening peripherally to speech pathology, and they do learning exchanges in a school with children with disability, so they are exposing them to people with disability.*

She perceived that while these changes were positive, no course could fully prepare SLPs for the complexity of working with students with MSD. She said: “To be honest you could spend 4 years at university focussing just on disability and still step out and have situations where you are just lost and struggling”. So, SLPs agreed that they learned how to support students with MSD once they started working. Karen said: “So it is really what you learn once you get to work … from then on, that makes you able to make any difference”. Despite limited appropriate content in their pre-service education, SLPs described being well-supported with access to continuing professional education, senior supervision and opportunities for learning from and with each other.

**Access to Continuing Professional Development**

SLPs described their access to continuing education as “great” (Caitlin), “amazing” (Mandy, Karen), “quite extraordinary” (Mandy) and “training to inspire you” (Dianne). Mandy noted that her professional development had prioritised “areas of weakness I have in disability and so I find that really helpful in terms of looking for things that are going to change what I can do”.

However, Mandy, Clare and Dianne noted barriers to accessing professional development associated with geographical location (Part 5). Dianne also commented that there were few opportunities to practise knowledge and skills acquired at courses, such as Makaton Signing (Brownlie & Bloomberg, 2011; Walker, 1993) and the Picture Exchange Communication System (PECS) (Bondy & Frost, 1994), so as to be able to implement them with teachers in the classroom. She said:
We really need to practise these skills. We actually can’t just take a course on PECS and have done it twice and go in and be credible. We have to practise those clinical skills so that we actually have something to offer.

Perceived barriers to practising clinical skills were associated with the SLP service delivery model (Parts 5 and 6).

**Supervision and Mentoring**

SLPs also spoke about the value of senior supervision. As a senior SLP, Chloe described travelling to rural towns to meet with SLPs and accompany them on visits to complex clients “to do assessments so they can observe and learn”. She perceived that this provided the SLPs with opportunities “to learn from a more experienced peer”. She also perceived that new graduates needed support to identify and develop strategies for “working around the situational barriers” they encountered.

However, Chloe and Mandy stated that “distance” (Mandy) was a barrier. Mandy said: “My clinical supervisor is 3 hours away”, an issue discussed in greater detail in Part 5. So, for Mandy having an “informal mentor”, a more experienced SLP in the office, was very important. The influence of other people in SLPs’ offices, are also discussed in more detail in Part 4. Other SLPs were not as fortunate as Mandy and relied on networking more broadly.

**Networking with Other Speech-Language Pathologists (SLPs) in the Region**

Chloe spoke about facilitating opportunities for SLPs to support each other. She described saying to colleagues: “I know that ‘blah’ from 2 hours away or 3 hours away really enjoys that work. Let’s get her across for the day to spend with you”.

Clare added:

*When you’ve got different therapists around the region, we support each other. So, if someone knows a bit more about a topic then, instead of attending a formal training, you might be able to chat to them or they pass on information about that particular topic.*

SLPs perceived that, by contrast, teachers’ had limited access to such professional development.

**Teachers’ Professional Development**

SLPs perceived that one of the reasons for teachers’ variable and often limited skills and knowledge about educating and communicating with students with MSD, was
their pre-service education and limited continuing education opportunities. SLPs also talked about their role in providing professional development for teachers.

Table 7.3
Supports and Obstacles Associated with Teachers’ Professional Development (Stage 4)

<table>
<thead>
<tr>
<th>Features</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-service education</td>
<td>Limited content about MSD and collaboration with speech pathologists.</td>
<td>Time constraints in the school context.</td>
</tr>
<tr>
<td>Continuing education</td>
<td>Limited access to appropriate continuing education.</td>
<td>Isolated geographical location of schools.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Limited support from state education system.</td>
</tr>
<tr>
<td>The role of speech-language</td>
<td>Collaboration with individual teachers in the classroom.</td>
<td>Rigid application of course contents.</td>
</tr>
<tr>
<td>pathologists (SLPs)</td>
<td></td>
<td>Few opportunities to provide communication education for teachers.</td>
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<td></td>
<td></td>
<td>Traditional lecture-style presentation not useful.</td>
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</tbody>
</table>

Teachers’ Pre-Service Education

SLPs perceived that teachers’ undergraduate and special education coursework did not prepare them to support students with MSD. Kirsty noted that special education courses had limited content about students with MSD. She commented:

\[ I \text{ wonder about the special education training at the university level.} \]
\[ \text{Colleagues who are special education trained describe predominantly} \]
\[ \text{focussing on students with either mild disabilities or specific literacy and} \]
\[ \text{learning disorders, and not having any experience or any access to research} \]
\[ \text{or a knowledge base around students with profound or multiple disabilities.} \]

Nadia added that these courses contained little about collaboration with SLPs and other professionals. So, she commented: “Unless the teachers are shown on a student placement, they’ve got no idea about how therapists can be involved in their classrooms and the benefits for their students from working together on curriculum planning”.

Teachers’ Access to Continuing Education

SLPs perceived that teachers’ subsequent limited access to appropriate continuing education was a further barrier (Caitlin, Mandy, Karen, Clare, Nadia). Karen said: “Lots of teachers don’t get to go to any professional development - [maybe] they’ve been to one professional development event that they went to 5 years ago and they
haven't done anything since”. Karen and Nadia recalled having recently attended a Spectronics conference interstate, and Nadia said:

*There were so many teachers there but not one single one from our region. It was really disappointing because it was aimed at teachers this year. It was all about classrooms and what teachers can be doing in them, and how [SLPs] can be supporting teachers.*

Clare stated that: “*Teachers need to be provided with a more supportive framework for what they should be working towards in their classrooms and given that training*”.

SLPs also perceived that teachers received little, if any, supervision/mentoring and few opportunities to learn from and with each other. There were a number of perceived reasons for teachers’ limited access to appropriate professional development. These included time constraints and the culture of the school (Part 4), the geographical location of schools (Part 5), and lack of support from the state education system (Part 6).

Karen reported an additional obstacle; conferences or workshops where a particular communication package or approach was being “*sold*” to attendees. She recalled: “*There were lots of teachers in the [PECS] workshop, who didn’t have that prior knowledge of total communication. So, they’re going to go back and implement it with everyone. I know that because they say ‘No, signing is not good and no, this is not good, just PECS with everybody’*. SLPs therefore perceived that they had a role to play in providing ongoing professional development for teachers.

*Speech-Language Pathologists’ (SLPs) Role in Providing Professional Development for Teachers*

SLPs reported that they had few opportunities to provide communication education for teachers, such as Makaton (Key Word Signing) (Brownlie & Bloomberg, 2011; Walker, 1993) workshops. Caitlin, Mandy, Clare, and Chloe suggested that this was due to the time constraints and cultures within schools (Part 4), limited co-operation between government departments, and their own service request procedure (both discussed in Part 6).

Dianne also perceived that while Makaton (Key Word Signing) (Brownlie & Bloomberg, 2011; Walker, 1993) workshops, for example, were “*hands-on*” and “*practical*”, there were problems with traditional “*lecture-style*” professional development. Other SLPs agreed that unless the content was specific, practical and immediately applicable, such presentations were not useful for teachers. Mandy said:
“You can go for a day and it doesn’t change what you do at all”. Mandy, Kirsty and Dianne stated that their collaboration with individual teachers in the classroom was the most effective source of professional development for teachers. Mandy said:

_How much do you actually change without being there in the classroom doing the hard yards with them [teachers]? It’s that side-by-side, collaboration in the classroom, the interaction: “Oh what about if we try this?” that actually getting in together and doing it as opposed to sitting there._

She described one teacher who used the occupational therapists, physiotherapists and SLPs coming into her classroom as a “nursery for new ideas”. Both Mandy and Dianne reported sharing with teachers, in specific and useful ways, resources, information and strategies from conferences they had attended, such as the recent _Spectronics_ conference. SLPs stated that collaboration was central to communication intervention with students with MSD, as discussed below.

PART 3: COMMUNICATION INTERVENTION AND COLLABORATION

SLPs talked about the different socio-professional discourses that influenced families’, teachers’ and their own attitudes towards people with disability. They also talked about how these discourses drove different practices of communication intervention. They talked about the traditional “withdrawal model” and the “paradigm shift” (Chloe) in communication intervention involving collaboration between teachers, families and SLPs. Supports and obstacles to implementing this model were also identified. These are summarised in Tables7.4. Communication Intervention and Collaboration are also represented in Figure 7.1 to reflect close inter-connection with Professional Development and interactions with factors at multiple levels. Socio-Professional Discourses, for example is included as Societal Factors in the outermost circle.

Communication Intervention

_The Traditional “Withdrawal Model”_

Despite the perceived professional development value of collaboration, SLPs reported an expectation among teachers and families that the traditional, withdrawal or “pull out” (Clare) model was necessary for children with MSD (Karen, Clare, Nadia). Nadia perceived that this outdated “medical model”, perpetuated by local doctors
especially, dominated perceptions of people with MSD and communication intervention in rural areas. Karen lamented:

*Some of the teachers that I work with, all my contact with them is that I come into their classroom and I take this child out once a week and then I drop them back and then we have a quick catch up about it.*

Table 7.4
Obstacles and Supports Associated with Communication Intervention and Collaboration (Stage 4)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication intervention paradigm</td>
<td>The “paradigm shift”: person-centred approach; Augmentative and Alternative Communication (AAC); incorporating communication strategies into daily activities; working with other children/peers.</td>
<td>The traditional “withdrawal model”: families’ and teachers expectations that SLPs withdraw children from communicative contexts to “fix” them.</td>
</tr>
<tr>
<td>Collaboration with teachers and families</td>
<td>Benefits for students: enhanced communication access. Benefits for teachers: professional development, reinforcement. Benefits for SLPs: professional development. Facilitators to effective collaboration: joint goal setting and regular monitoring; building relationships; regular contact; demonstrating communication strategies; making communication resources.</td>
<td>Barriers to effective collaboration: “Co-ordinating everybody”. Barriers for families; attitudes, pressures in the home, cultural and socio-economic issues, isolated geographical location. Schools/teachers resisting collaboration with parents and/or SLPs. Other issues for teachers; personal and contextual. Time constraints for SLPs.</td>
</tr>
</tbody>
</table>

Nadia also talked about:

*That parental attitude that my child must have one-to-one therapy and they must have it weekly. It doesn’t matter how many times you say: “It’s better to be implementing things in the home in your day-to-day life”, they just don’t get the message.*

Karen added: *Lots of parents and teachers want to fix their child but we know that it doesn’t get results*. Chloe agreed that:
One of the biggest barriers to supporting [children] with profound, multiple disabilities is if we’re asked to provide support or intervention in a setting where someone says: ‘That’s your job, go do that’ and doesn’t recognise the need for us to collaborate closely around that person.

The “Paradigm Shift”

SLPs reported that, despite this perception of some teachers and families, the traditional withdrawal model was not effective for students with MSD. Chloe commented that sometimes SLPs “step into an environment” where there are lots of barriers and the expectation to “fix this in isolation from the rest of the environment. It is not ever going to work”. Clare agreed: “It doesn’t seem to be working if there’s just a therapist there”.

SLPs spoke instead about the emergent shift in the perception of communication intervention for students with MSD. Chloe stated: “Over the last 10 years we have seen a shift in thinking around people with disability and that has been matched by the shift in what we consider therapy to be”. She added: “It has been a wonderful shift from where therapists were very much seen as separate and isolated to where there are 50% of situations where we’re involved and that’s fantastic”. She noted, however, that this paradigm “may still conflict with some ideas from educationalists or parents as to what a therapist does and their role in that setting”.

Chloe stated that this paradigm involved seeing the person with MSD holistically, and working with their communication partners on functional communication in all contexts. Hence, SLPs perceived that supporting the communication of students with MSD was not about “fixing” them (Chloe) but instead “very much depended on the child’s environment” (Karen). SLPs spoke about different aspects of this paradigm and how these supported communication access for students with MSD. They included: (a) a person-centred approach; (b) augmentative and alternative communication (AAC); (c) incorporating AAC strategies into daily activities; and (d) and working with other children/peers.

A person-centred approach. In contrast to the controlled, time-limited nature of withdrawal sessions, Clare and Dianne noted the value of spending time with students with MSD in different situations “and getting to know them, to be able to come up with functional things that can be implemented” (Clare). Dianne stated that it was important to find and work with individual students’ preferred objects or activities, which engaged or motivated them to interact.
Alternative and Augmentative Communication (AAC). SLPs stated that facilitating AAC strategies for individual students with MSD was crucial to supporting their communication access. They spoke about the value of trialling visual, “low tech” tangible communication supports designed specifically for the needs and preferences of individual students. Dianne added that, when trialling AAC strategies with individual clients, often SLPs did not know whether these would work. She said: “I think being willing to try something that you’re not sure how it is going to end up is one of the biggest challenges”. Dianne noted that there were other barriers, such as time constraints, to trialling and developing AAC systems with individual clients. She gave an example: “I feel that eventually if [student] had an eye gaze system that was modelled for him, he could start to comment, but we are just getting this boy to make a few choices with his eyes. You could develop something so much better if you had more time”. Time constraints for SLPs and teachers are discussed in later parts of the chapter.

Incorporating strategies into daily activities. SLPs commented that the most effective communication intervention for students with MSD was to incorporate AAC strategies into existing activities in the school day, and change teachers’ communication practices (Clare, Dianne, Karen). Karen said:

Some of the teachers I work with - it is about changing the way that they’re delivering the class. So you kind of feel like you’re actually helping them to change what they are doing to help the student access activities and that is what I think is more effective. I feel like I am actually making a difference.

Working with other children. In addition, Mandy, Clare and Dianne spoke about the enjoyment and effectiveness of working with groups of students, including the student(s) with MSD, in the classroom. The perceived benefits included: (a) facilitating peer interactions, (b) incorporating individual student’s communication goals into the whole class program, and (c) effecting long term changes in teachers’ communication practices. Mandy said:

From a theoretical perspective, changing the environment to support the communication skills that somebody has, and the power of peer-to-peer learning: I think if you can make it work, they’re getting more fun out of it. We’ve been able to do some different activities because there are more of us, so in fact, we did a whole class cooking session.
Clare added: “You can do the same activity but you need to have different expectations for what each child can do within that activity or modify a part of it for them to do”. Mandy added that teachers covered several Key Learning Areas (KLAs) simultaneously through these whole class activities.

Mandy and Clare recalled having opportunities to work in this way because they had current referrals for several children in the same class. However, they also identified barriers associated with their service request process, discussed in Part 6. Given the reliance of this paradigm on teachers and parents as communication partners, SLPs shared their perceptions and experiences of collaboration.

**Collaboration with Teachers and Families**

SLPs reported variable experiences of collaborating with teachers and families that produced variable outcomes for children with MSD. Karen commented:

> If I’ve got a family and a school team who are really motivated and keen to be involved with the therapist, then everything tends to go wonderfully well and I find that I put in 110% to try and help their child with their communication. But if you’ve got a team around a child who isn’t interested and have other priorities you just can’t get results. One person can’t really change the child’s communication. It has got to be everyone working together.

Chloe stated that lack of collaboration between schools and families was a major barrier to supporting the communication of students with MSD. She said:

> There’s not a single thing that you can do without that support that’ll result in an outcome for that person. So you feel like just saying: “We’ll pull out, it’s just not going to work”. We really need all those people to be on board and if they’re not, then it’s just not going to work.

Hence, they talked about the benefits of collaboration for students with MSD, and their families, teachers and SLPs. They also talked about factors that facilitated or hindered effective collaboration.

**Benefits for Students with MSD**

SLPs talked about the positive communication outcomes for students with MSD that resulted from effective collaboration with teachers and families. However, their examples focussed only on the outcomes of collaborating with teachers. Dianne recalled:
[The teacher] expanded on my idea by doing things on the interactive whiteboard. She followed up on some of the Power Points that I was doing but she was also encouraging him to point and now I’m building on that. We’re now starting to see that he can point as well as use the visuals and it’s brilliant. So, we were really working closely together.

Benefits for Teachers, Families and Speech-Language Pathologists (SLPs)

While SLPs talked about the benefits for teachers and themselves, little was said about the benefits for families.

Benefits for teachers. The professional development benefits of collaborating, for teachers were mentioned at the end of Part 2. Mandy added that even very competent teachers benefitted from the reassurance, “the pat on the back” from SLPs for the communication strategies they implemented. She said: “I think there’s incredible value in that sort of reinforcement”.

Benefits for speech-language pathologists (SLPs). However, SLPs also identified benefits for themselves from collaborating with teachers. Dianne said: “The teachers are giving us as much as we’re giving [them]. They have a perspective that we need to listen to even if it’s slightly skewed [sometimes]”. Mandy recalled learning about possibilities for creating communication opportunities in the classroom. She said:

[The teacher] had one girl who was completely non verbal set up with a Big Mack and one of the boys on the exercise bike. She’d recorded on the Big Mack “Go Benny! Go, go, go!”. The girl would hit it, sometimes intentionally, sometimes not and the boy would pedal, pedal, pedal. It was brilliant and the pair of them were laughing. Once the teacher had set it up, she was out of the interaction. So, for me to see how it could work in the real world is one of the things that I get out of being in that classroom.

Conversely, Chloe described “negative outcomes for therapists” when collaboration failed to happen. She said: “It’s so disheartening if you go into a school and you feel like you’re basically intruding and interrupting the teachers just by being there”.

Facilitating Effective Collaboration

So, SLPs shared their perspectives on factors that facilitated effective collaboration, and these are outlined below.

Joint goal setting and regular monitoring. Clare and Chloe commented that parents, teachers and SLPs needed to meet to: (a) share information about the child
and their different contexts, (b) set goals together, and then (c) share feedback about how communication strategies worked in the different contexts. Dianne emphasised the need for SLPs to be realistic about what parents and teachers could achieve. She said: “You have to see where they are at, what they are motivated by and try to expand on that”. Chloe saw SLPs as “the conduit” facilitating this process and the consistent use of students’ communication strategies across contexts.

**Building relationships.** SLPs spoke about the importance of “building” and “managing” relationships with individual teachers (Mandy, Clare, Chloe, Dianne). They perceived that this involved supporting teachers’ attempts at trying new strategies, while finding ways to advise them on improvements. Dianne referred again to a previous example of the student using eye gaze:

> We started off with him using eye gaze to choose objects and his teacher came up with an idea; using the interactive white board because it’s big, it’s bright, so he can look this way or that way for the things he wants. She made a program and I didn’t really agree with the visuals that she was using but I thought: “He’s using eye gaze and he’s communicating. It’s not perfect. I would not have made it this way but that’s a good step and the next step might be to expand it more towards where I might like it”.

She added that it was important to respect the teacher’s contributions; his/her knowledge of the student, and “the millions of things they are doing that I couldn’t do”, and then look at enhancing practices. Chloe perceived that it was also important for SLPs to be honest with teachers when they did not know what to suggest. Mandy and Dianne noted that failure to manage this relationship could result in teachers refusing to collaborate; “closing the door” (Dianne).

**Regular contact.** Dianne also perceived that effective collaboration involved SLPs having a regular presence in the classroom. She recalled: “I took some general referral criteria and used it as a chance to spend some time [there]. So, I had a regular weekly time to go and see the teacher. She knew I was coming; we picked it out that it was convenient for her”. Dianne commented that this also enabled her to get to know the other children in the classroom.

**Demonstrating communication strategies.** In addition, Dianne commented that a regular presence enabled the SLP to demonstrate for the teacher how a communication strategy could be used with a student in the classroom. She said:
“When she [the teacher] saw something that worked with this kid, she would do it and so that’s worked really well”.

**Making communication resources.** Mandy and Dianne also talked about contributing to effective collaboration by making communication resources for teachers. They commented that this saved teachers “extra work” and made the resources available for immediate use. However, Mandy added that a potential disadvantage was that teachers, consequently, did not have “ownership” of the resources.

A final point made by Dianne was that when a SLP established “credibility” through effective collaboration with a teacher, this could contribute to capacity building in the entire school, an issue discussed in Part 4.

**Barriers to Effective Collaboration**

However, SLPs also identified barriers to collaboration with families and teachers. Clare noted that “co-ordinating everybody” to meet and work on the same communication goals and strategies across different contexts could be difficult. Other perceived barriers are outlined below.

**Barriers for families.** Chloe reported that in addition to families’ attitudes (Part 1), there were other issues that could prevent families from collaborating, resulting in the school being the sole context for supporting a child’s communication access. These included other pressures in the home context, cultural and socio-economic issues (Part 4), and geographical location (Part 5). She talked about: “trying to work out if that [implementing communication strategies at home] is at all achievable and how we can support that to be achievable because we’re just having families falling down with some basic things as well”.

However, Kirsty and Chloe also commented that sometimes schools resisted collaborating with parents of students with MSD. Kirsty described situations where conflict between the schools culture/philosophy and what families wanted for their child with MSD precluded any meaningful collaboration. This issue is further discussed in Part 4. So, SLPs also reported barriers to collaboration associated with teachers.

**Teachers’ resistance to collaboration.** As mentioned in Part 1, some teachers’ unwillingness to try communication strategies was identified as a barrier to effective collaboration. Karen talked about resistance from teachers for whom suggestions or systems had not worked in the past. Dianne commented that SLPs not trialling or
modelling communication systems with students in the classroom was also a barrier. She said: “I have had teachers come to me with files of programs that had been written for them, that have been shelved because I don’t think that they’ve been trialled with anybody and they haven’t been demonstrated”. However, Clare spoke of the frustration of setting up communication systems in the classroom, demonstrating their use to teachers and learning support officers (LSOs), only to return and find they weren’t being used.

**Separate goals.** Dianne perceived that SLPs and teachers having different goals was a potential reason for teachers not using the communication systems recommended by SLPs. She said: “If we’re not doing joint goal setting then we are at cross purposes”, and that the Individual Education Plan (IEP) process did not support teachers and SLPs to work closely together. She commented: “IEP meetings and therapy goals are separate. That’s a barrier”. The IEP process is further discussed in Part 6.

**“Other issues” for teachers.** Dianne also noted that “timing” could be an important factor for collaboration. She said: “There’s a time and a place to be ready, so if a teacher has other issues in place it may not be a good time”. She concluded that what SLPs could achieve for their clients with MSD at school “depended on the teacher’s readiness and receptivity”. In addition to the teacher’s characteristics, perceived contextual influences on their receptivity are discussed in subsequent parts of this chapter.

**Time constraints for speech-language pathologists (SLPs).** In addition, Clare noted that SLPs were often not able to work with families and teachers for a sufficient time to facilitate effective collaboration, an issue discussed further in Part 6. SLPs, teachers and families all experienced supports for and obstacles to collaborating on communication access for children with MSD. Part 4 outlines perceived obstacles that existed in their daily contexts and workplaces.

**PART 4: INTERACTIONS WITH CONTEXTS**
SLPs identified supports and obstacles to communicative interactions and collaboration in the contexts in which students with MSD, their parents and teachers, and the SLPs interacted and worked. These included: (a) SLPs’ offices, (b) the school context, and (c) the home context. These are represented by the first concentric circle
surrounding individuals’ characteristics in Figure 7.1. The supports and obstacles are summarised in Tables 7.5, 7.6 and 7.7.

**Speech-Language Pathologists’ (SLPs) Offices**

SLPs talked about the role of other people and resources available in their offices.

**Table 7.5**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech-language pathologists’ (SLPs) offices</td>
<td>Other people in the office: presence of another SLP; close multi-disciplinary team; therapy assistant.</td>
<td>Potential negative influence of the office culture on SLP’s practices. Senior SLP not co-located.</td>
</tr>
<tr>
<td></td>
<td>Resources: access to resources for making AAC systems and communication devices.</td>
<td>Senior SLT not co-located. No other SLP in the office.</td>
</tr>
</tbody>
</table>

**Other People in the Office**

**Office cultures.** Chloe talked about the “different cultures” within SLPs’ offices. She said: “*We have offices within [government department] with different cultures. So if someone’s inducted into a culture that’s kind of conflicting with where we should be heading as a group of speechies [that could be an obstacle]*”. She believed that the absence of a senior SLP in such an office could result in the SLP being negatively influenced by the office culture.

**Senior speech-language pathologist (SLP) or manager.** Chloe found that, as a senior SLP, not being “co-located” was an obstacle to supporting the SLPs. Mandy, however, reported that the absence of an administrative manager in her office supported her work because it allowed her the autonomy to structure her time and work flexibly. She said: “*I can come and go from school if that’s what I decide that I’m going to do, or just pop in at the special school because I’m going past, and nobody is going to bat an eyelid*”.

**Other speech-language pathologists (SLPs).** Half the SLPs reported being supported in their work by the presence of another SLP in the office, while the others reported being isolated. As an “early career” therapist, Caitlin commented that “*not having another speech pathologist here would definitely be the biggest barrier for me*”. She added that consequently she had limited opportunities for “debriefing” and sharing ideas about how to support clients with MSD. As mentioned at the end of Part
2, Mandy agreed that having another SLP in the office, particularly one who was more experienced, was supportive. She said: “I am very fortunate because I have a colleague here who is very experienced and that is probably why I am still here after 15 months, because it really had the potential to be so overwhelming”.

The multidisciplinary team. Regardless of whether or not there was another SLP, most SLPs reported being supported by other professionals in their office. Caitlin said: “We have a really close team here so it’s nice. You can just stand up and talk to the person next to you about an issue. We do a lot of multi-skilling and sharing of abilities. We have a fairly small team though so that’s a challenge”.

Therapy assistants. Caitlin also reported being allocated a therapy assistant to support implementation of programs and development of AAC systems in the office.

Resources
SLPs reported being supported by access to resources in their offices for making AAC systems, such as iPads, iPods, iTouch screens, and communication devices for trialling with clients. Dianne said: “We have some quite amazing resources, it’s brilliant. In many other places [other government departments] they dream about having these communication devices”.

However, Caitlin reported that SLPs in small offices had difficulty accessing some resources. She said:

Because I am the only one here I don’t get as many resources or the same resources as the offices with more speechies in them, so that’s disappointing. I have to travel to [regional centre], that’s a 3 hour drive if I want to use one of their resources and then I can only use it for the day. I can’t take it back with me.

Caitlin perceived barriers associated with the geographical location of her office, as discussed in Part 5.

As the most senior of the group, Kirsty stated, however, that the SLPs’ ability to support the communication of students with MSD was dependent on the student’s daily contexts. Kirsty and the other SLPs identified supports and obstacles in students’ school and home contexts.

The School Context
SLPs spoke about: (a) the different educational settings in which they supported students with MSD; mainstream classes, support units and special schools, (b) the
cultures of different schools and the role of the principal, (c) funding, resources and
technology, (d) staffing and collegiality, (e) learning support officers (LSOs), (f)
communication practices, (g) the classroom context, and (h) time constraints.

**Educational Settings: Mainstream Classes, Support Units and Special Schools**

While three SLPs reported supporting students with MSD across all types of
educational settings, others noted that in most rural and remote areas there were no
special schools (SSPs). Karen said: “*We don’t have any special schools in the areas
that I work in. There is one school in [rural town] that has a support unit. All the
other schools that I work in have children mainstreamed with aide time*”.

SLPs perceived that the type of educational setting was not necessarily a
determinant of a school’s ability to support communication access for students with
MSD, or collaboration between its teachers, students’ families, and SLPs. They
reported variable experiences of communication access for students, across the
different educational settings. Caitlin stated:

> There are definitely huge differences between the schools. I have a little boy
> over in [rural town] who’s in a mainstream school. He has significant
> communication issues but his school are just fantastic and he’s making
> fantastic gains. I’ve had other clients in different towns, [however], where the
> mainstream schools have not been as receptive, and it really impacts on the
> clients in the end and that’s where it all comes undone.

Similarly, Caitlin reported differences between support units (SUs) in different
schools, and between different SSPs, in the level of communication support provided
for students with MSD. Dianne added that consequently the success of
communication intervention “varies dramatically” across schools.

Some SLPs expressed uncertainty about potential reasons for the difference
between schools in the level of support provided for students’ communication. While
Caitlin and Nadia speculated that the size of the school could be an influencing factor,
they gave contradictory reports on the impact of size. Caitlin reported that bigger
schools tended to provide better support for students with MSD than small schools
because generally they had more staff, funding and resources. However, Nadia
described a SU in a small, remote school where the teacher was: “*innovative, used
multimodal communication and spent her whole day using AAC with clients*”. She
added:
Yet I go to a school in [regional centre], that’s a bigger town, that you think would draw a better range of teachers with experience, and we’ve got teachers who just want to do the day-to-day [physical] tasks, changing nappies and feeding, and can’t implement my program.

Table 7.6: Supports and Obstacles in the School Context (Stage 4)

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of educational setting</td>
<td>Principal supportive of including students with MSD.</td>
<td>Variable support for students’ communication access.</td>
</tr>
<tr>
<td></td>
<td>Expectations for participation of students with MSD.</td>
<td>Principal not supportive of including students with MSD.</td>
</tr>
<tr>
<td>Culture and the role of the principal</td>
<td>Support for teachers.</td>
<td>Too low or high expectations of students with MSD.</td>
</tr>
<tr>
<td></td>
<td>Collaboration with families and SLPs.</td>
<td>Lack of support for teachers.</td>
</tr>
<tr>
<td>Funding, resources and technology</td>
<td>Inclusive technologies and other communication resources introduced into schools.</td>
<td>Little collaboration with families and slps.</td>
</tr>
<tr>
<td>Staffing and collegiality</td>
<td>Motivated staff. Knowledge and expertise among staff.</td>
<td>Limited sharing of knowledge and resources between teachers.</td>
</tr>
<tr>
<td></td>
<td>Sharing knowledge and resources.</td>
<td></td>
</tr>
<tr>
<td>Time constraints</td>
<td>Release from classroom to prepare communication resources and collaborate with SLPs</td>
<td>Limited or no release from classroom to collaborate with SLPs and attend professional development.</td>
</tr>
<tr>
<td>Classroom context</td>
<td>Modifying activities to include student with MSD, in class of students with diverse abilities.</td>
<td>Meeting complex needs of class of students with MSD.</td>
</tr>
<tr>
<td></td>
<td>Support teachers to meet students’ complex needs.</td>
<td>Not modifying activities to include student with MSD, in class of students with diverse abilities.</td>
</tr>
<tr>
<td>Learning support officers (LSOs)</td>
<td>Facilitate communication access in the classroom.</td>
<td>Limited time, only one LSO in the classroom.</td>
</tr>
<tr>
<td>Inappropriate practices</td>
<td></td>
<td>LSO’s limited knowledge and/or disabling attitudes.</td>
</tr>
<tr>
<td>Change</td>
<td></td>
<td>Restrict students’ participation and interaction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Restrict communication intervention.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Difficulty changing practices.</td>
</tr>
</tbody>
</table>
Subsequently, Caitlin posited that the implementation of communication strategies was dependent on whether teachers were adequately supported in their particular school, as discussed below.

**The School Culture and the Role of the Principal**

Other SLPs reported that the cultures within individual schools varied and that this influenced the level of support provided for students with MSD (Chloe, Kirsty, Dianne). Chloe described it as “different flavours in different schools. Some schools are just so fantastic; I see such positive practices and such positive attitudes. I also see schools not doing what they should be in term of supporting students [with MSD]”.

*Outcomes for students.* Positive school cultures were associated with good communication outcomes for students with MSD. Kirsty commented: “Where the culture in the school is good, the outcomes for the students with MSD are just amazing”. Kirsty said of such a school: “I was so impressed with the level and variety of communication supports they had in place and how it was just built into the daily activities and was done all the time”. Conversely, negative school cultures were associated with minimal communication access for students with MSD. SLPs described aspects of schools’ cultures.

*The role of the principal.* Chloe stated that a major influence on a school’s culture “seems to be top down. The influence is very obvious in the staff’s approach and attitudes, from very positive to more negative schools”. Kirsty and Dianne perceived that the principal’s values influenced how students with MSD were treated at the school. Kirsty said:

> The principal is the leader of the culture within that school and unless they are taking the right knowledge and values and attitudes into their work in the way they interact and support the education of students with special needs, I don’t think that will filter through the school.

*Philosophy of inclusion.* Caitlin, Chloe and Kirsty reported that in some mainstream schools, the principal was philosophically supportive of educating students with disability at their school. Kirsty added: “That is where you see the most positive practices”.

Kirsty and Dianne noted that by contrast, schools where the principal was not philosophically supportive of educating students with disability, there was no “goal” or “agenda” for including those students in the school community and meeting their
needs. Kirsty noted that in such schools there could “be a cultural divide between mainstream and special education and it feels almost like the special education students are a second class citizen in the school”, and Dianne added: “They’re not given any priority in terms of budgeting and getting resources”.

Chloe, Kirsty and Dianne observed that schools with a negative culture had philosophies of either overlooking or “kicking out” (Dianne) students with MSD, due to insufficient time or resources to accommodate their needs. Dianne said:

*I think that many of our clients who are the most severe and profound are a minority, and they’re either a quiet minority who are sitting there like we can park them and they won’t say anything, or they’re the outspoken minority who are acting out and then they just dump them out. They just kick them out.*

Dianne stated that mainstream schools that excluded students with MSD tended to focus on students’ deficits and were unprepared to accommodate their needs. Chloe described a recent experience with a school that:

*Put up unreasonable expectations for [the student] and then just watched him fail and then said “Perhaps he’s better suited somewhere else”. It almost feels like a way for schools to discriminate against somebody with disability. You think there can be no other motivation except that they are wanting that person out of their school because they are too hard.*

Dianne agreed: “They’re just saying ‘we can’t accommodate them’ instead of making an appropriate program for them”.

**Expectations for students and teachers.** In schools with a philosophy of overlooking students with MSD, Dianne described limited expectations of achieving goals or interacting with the students. She used the metaphor “a baby sitting service” to describe such schools. She said:

*I’ve been to some settings that I find quite horrifying where basically nothing is happening. I went to one school and began with asking “What’s the routine here?” and people looked at me with horror because there was no routine. There was no sense of trying to achieve anything. So, obviously putting into place any kinds of programs are going to be very difficult. Other places where there’s no sign language, there’s no visuals, there’s no communication. If you haven’t got the basics in place, it’s really quite daunting.*

By contrast, Chloe stated that schools with positive cultures had “educational expectations for students”, and expectations that teachers would support students’
needs. Chloe said: “You’re stepping into attitudes and people who have expectations of themselves in terms of supporting the people in their classrooms”. Nadia gave an example of a new assistant principal (AP) arriving at a school where staff were “stuck in their ways”. She recalled that this AP “just pushed them” to better support the communication of students with MSD. She added that consequently “the school has just blossomed. They’ve got visuals up everywhere - they’ve got signing happening and training for the TAs”. Some schools were perceived to also have a school-wide focus on communication, including developing resources and building the capacity of teachers (Kirsty, Dianne).

**Impacts on teachers.** Schools with positive cultures were also associated with philosophical and practical support for teachers, including mainstream schools where there was widespread staff support for the teachers of students with MSD (Caitlin, Kirsty). Kirsty perceived that new teachers to such schools were supported to meet the educational and communication needs of students.

In contrast, Kirsty and Nadia perceived that a negative school culture could have adverse impacts on individual teachers, who wanted to support the communication of students with MSD. Kirsty said:

> I think that for individual teachers, regardless of what their personal value system is, once they’re within that school culture it’s very hard to maintain their own value system if it’s not in line with the majority of the culture around them. I’ve seen examples, particularly difficult schools that I work with, where there is a poor culture of expectations for students who have severe disabilities, and they might get a new teacher there who is keen and they’re excited, and they barely last that first year with maintaining their own motivation, because everyone around them thinks it’s all in the too hard basket.

Dianne stated that schools with negative cultures did not view communication education as important for their teachers.

Kirsty related teachers’ expressed disagreement with what was happening at their schools, but also their feelings of powerlessness to make any changes. She concluded that such negative school cultures “dragged teachers down”, took away their “enjoyment of their jobs” and contributed to “burn out”.

**Collaboration with families and speech-language pathologists (SLPs).** Clare and Chloe noted that it could also be “disheartening” (Clare) for SLPs to work in
schools with negative cultures. In talking about the personal impacts on “new graduates”, Chloe said: “You don’t want people to stop being a speech pathologist because they’ve just had terrible experiences”. In addition, Kirsty reported that a school’s poor educational expectations and limited communication goals for children with disability had a negative impact on their families, and this is elaborated in Part 5.

By contrast, Chloe and Dianne noted that in schools with positive cultures, teachers tended to be willing to collaborate with SLPs, and, further, that SLPs could contribute to building a positive culture in a school. Dianne recalled an experience of “becoming part” of the culture of a school and bringing about “some school-based changes” that contributed to building the capacity of the school to support the communication of students with MSD. SLPs reported that a school’s culture interacted with other factors in the school context that supported or hindered communication intervention for students with MSD.

**Funding, Resources and Technology**

SLPs also reported variable access to inclusive technologies and other communication resources across schools. Caitlin observed that while most primary schools had interactive whiteboards, high schools had limited access to them. Dianne added: “Interactive whiteboards are around in many schools but in some of these country areas some of them are just barely getting them now and they’re not familiar with how to use them and what to do.”

SLPs reported observing other technologies being introduced into some schools, and providing support for teachers to use them. Dianne reported that iPads, customised for use by individual students with MSD, were being trialled at one school. However, allocation of the school budget and limited access to training were perceived as obstacles for many teachers to using these resources.

**Allocation of the school budget.** Karen and Kirsty noted that in schools with a negative culture, there appeared to be limited funding support for communication resources for students with MSD. Kirsty stated that in some mainstream schools there was “fighting” over budgets and resources between “special education” and “mainstream” rather than cooperating over “tools for increasing educational outcomes for all members of the school”. SLPs perceived, however, that schools’ “tight budgets” (Kirsty) restricted the ability of even supportive principals to provide teachers with funding for communication resources, and the role of the state education system is discussed in Part 6.
In addition, Karen commented that the cost of resources such as “Boardmaker, Clicker 5, SmartBoards, voice output devices, all the software and switches” were prohibitive for most schools. However, as a consequence of limited funding, teachers were reported to often resort to buying communication resources with their own money. Nadia said: “I’ve worked in a number of classrooms where they’ve had motivated teachers, and often they’re spending their own personal money to get things for their classroom and to get things happening”.

**Support for implementation.** Karen added that even when communication resources were obtained, there was often no accompanying teacher support, for implementation. As a consequence, SLPs reported finding “high tech” communication devices that were not being used. Clare recalled: “I went into a classroom and this child has had a high tech communication device and they didn’t even know anything about it and why it was there”. Dianne recalled a similar experience of a high tech communication device being prescribed for a student by another agency. However, it was not programmed; the staff did not know how to use it, and consequently it would not work. Dianne perceived that it was a daunting task for the teachers to learn how to program and use this device with the student.

**Staffing and Collegiality**
In addition to the principal and funding for resources, SLPs talked about the influence that the staff as a group had on communication practices in different schools. Dianne observed that having staff in a school who were experienced and motivated supported communication access for students. In contrast to the “top down” influence of the principal, Dianne talked about a “from the ground up” influence on the culture of a school. She recalled:

*That school that has been really innovative has had a change over of one, two, three, four principals. So it’s not just one leader, it is a grouping of really dedicated people. They get disgusted if they see things that are not appropriate.*

In addition to the level of knowledge and skills among the staff, SLPs talked about the culture of teachers supporting each other at a school. Dianne noted that in the school described above, there was a “good base level of knowledge” and skills in using AAC among all staff as well as individual teachers who had built up expertise in different areas. She added that:
They've said: ‘we want our students to do this’, so they share interactive whiteboards, PowerPoints, Clicker 5. They do an across-the-board approach. A few teachers have some great expertise, are keen and spearhead it, and then other people get in-serviced by those teachers and it’s purposeful. It’s leading somewhere. It’s not just somebody’s got a little something over here.

Further, Kirsty and Dianne observed that it was the culture of constant dialogue and sharing knowledge and resources that was associated with positive outcomes for students with MSD. Dianne described the teachers with expertise in particular areas as “go to people” for other teachers. She said: “It is almost like having a range of people who are all working together and learning from each other”.

However, Kirsty noted variability between schools in the degree of collegiality. As mentioned in the section about school culture, Kirsty observed that teachers not sharing resources or working together could be an obstacle to communication access for students with MSD at that school. Mandy and Clare believed that individual teachers’ focus on their own classrooms often isolated them and afforded them few opportunities to collaborate with each other.

**Time Constraints**

SLPs perceived that, in addition to obstacles associated with resourcing and collegiality, teachers faced time constraints in the school context. They commented that confinement to the classroom restricted teachers’ opportunities for: (a) planning, developing and trialling communication systems, (b) attending professional development (as mentioned in Part 2), and (c) collaborating with SLPs (as mentioned in Part 3).

*Collaborating with speech-language pathologists (SLPs)*. Clare lamented:

You make an appointment to go out and see a child and the teacher doesn’t have time to sit down with you and talk about goals and what they’re doing in the classroom, or implement intervention goals as part of what they’re doing in the classroom.

Clare and Dianne commented that, consequently, teachers were forced to meet “in their own time”. Further, these brief meetings often occurred during break times and/or in inappropriate places such as the staffroom or in the classroom: “In the corner away from the rest of the group, trying to keep an eye on such-and-such at the same time as trying to listen to something quite complex” (Dianne). Clare described this situation as “not very satisfactory”.
Attending professional development, SLPs added that teachers’ limited access to professional development (mentioned in Part 2), was partly due to limited release from the classroom. Karen said:

*We offered a school in [large rural town] a 1-day Makaton workshop for key word signing, and they just said: “We couldn’t release the teachers for a day to do that”.*

Nadia added that teachers did not necessarily want to attend professional development outside school hours.

However, SLPs also reported that in schools with positive cultures, teachers were supported with release time. Karen noted that when teachers were released from the classroom to meet with SLPs and make communication resources, it supported them to implement communication systems with individual students.

**Classroom Context**

However, SLPs perceived that teachers also faced obstacles within their classroom context. These were associated with: (a) the class structure, and (b) including students with MSD in classroom activities.

*The class structure.* SLPs noted that the “combinations of students” (Dianne) in a classroom could present an obstacle to communication access for students with MSD. Mandy recalled a “teacher that was up to her eyeballs in this very complex class, getting everybody through the day”. Mandy, Karen, Clare and Dianne observed that meeting the needs of a class of students with MSD restricted opportunities for communication with individual students, such as the choices that they could be given. Dianne said:

*It is actually quite a minefield of organisation for [the teacher] to get them from the morning through the day. She has to make sure nobody’s having a fit and that nobody’s choking and that so-and-so has actually been fed on time, and that so-and-so has actually changed position, and that so-and-so has been changed.*

However, Nadia perceived that the needs of students were compartmentalised and teachers were not incorporating communication into these daily activities. She said: “*They’ve got to have time on the floor for physio, but they don’t incorporate some communication activities into that floor time*.”

SLPs noted that even in classrooms where students had diverse abilities, students with MSD received little one-to-one interaction during the day. They
perceived that this was due to the challenging behaviours of other students, and
difficulty modifying class activities to include the student with MSD. Dianne
commented: “When you tried to wait for so-and-so [to respond], someone else was
rolling around on the floor and somebody was kicking someone in the shins”.

**Classroom activities (curriculum and instructional practices).** SLPs reported
observing variable modification of classroom activities to include students with MSD.
Caitlin and Clare talked about classrooms with activities that enabled all students to
participate and teachers who “integrated” communication supports into “normal
lessons” (Caitlin).

Clare also described classrooms in which the curriculum was not modified,
therefore restricting the participation of students with MSD. She said:

*If that child doesn’t have the abilities to participate in that task, then
sometimes they’re just given something non-constructive to do; they might still
be sitting around the table, they might be given a little toy to play with during
the activity because they don’t have the skills to participate.*

She also commented that older students with MSD placed in “academically-based”
classes could be isolated and were often not referred for SLP support.

Finally, Clare and Dianne concluded that the range of daily activities and
needs of students in a classroom had implications for SLPs’ ability to support teachers
and their clients with MSD. She said: “*We need to be able to understand what is
going on in the classroom*.** SLPs also observed that learning support officers (LSOs)
played an important role in the classroom.

**Learning Support Officers (LSOs)**

SLPs observed that LSOs in the classroom could support teachers “with feeding and
other personal care needs” of students with MSD, so that “*the teacher can focus on
communication and setting up activities*” (Caitlin). Further, Mandy and Karen noted
that sometimes the LSO, rather than the teacher, implemented visual communication
systems with the student. Karen stated that “*a good TA*” could be “*the key*” to getting
communication happening in the classroom. So, SLPs noted that inadequate “*TA
time*” (Nadia) in a school was a barrier to communication access for students with
MSD. Nadia observed that having only one LSO in a classroom of students with MSD
left both the teacher and LSO little time for one-to-one communication with students.

Mandy commented, however, that a LSO’s limited knowledge about
communication, and disabling attitudes, could be an obstacle in the classroom and
restrict communication opportunities for students. She recalled the following observation:

The student got a DVD out and took it to the TA to request that he wanted to watch it, but she kept talking to the volunteer. She reached out and took it off him and put it back in the box. She didn’t even look at the student. She didn’t even acknowledge the communication attempt.

So, Mandy and Dianne perceived that in schools with negative cultures, where there had been “neglect” (Dianne) of staff, in terms of supervision and professional development, and limited resourcing, inappropriate practices could result.

**Inappropriate Practices**

Three SLPs reported often observing restrictive practices and other inappropriate practices, such as isolating students for long periods of the day, hence restricting their access to participation and interaction. Mandy recalled:

[A student was] barricaded into an area in the classroom to keep him safe but he was in [there] a lot of the time, more of the time than he needed to be because that was a way of actually managing to get through the day. It was like parking him at baby sitting because you can leave him there.

Dianne also recalled: “Children walking around with chairs on their bottoms because they’ve tried to strap them in but with no appropriate planning of what they’re going to do with them”. Kirsty added:

I have seen practices I would describe as a breach of human rights within our government schools that have affected me so strongly that I have reported those schools. [I have seen] really, really inappropriate practices so when you walk into those contexts as a therapist, you’re not even talking about being in a position to make any kind of positive intervention strategy. If anything, all you can contribute to is a general increased awareness of the person’s disability and to encourage the teachers to get some educational support but your hands are tied because you really can’t do much because the student is not being allowed to do anything.

Dianne perceived that such practices were also the result of lack of support from outside the school, particularly for schools in rural and regional areas, as discussed in Parts 5 and 6. Mandy commented that, as a consequence of this neglect, staff became “stuck” in practices that had been used for “many years”, and that change was consequently difficult.
Change

Mandy and Dianne reported that staff in such schools often had limited awareness of their own practices and found it difficult to see that change was possible. While Mandy had observed some teachers making changes “which was exciting”, Dianne perceived that it was very difficult as an outsider to bring about changes in staff practices. She said:

*It is quite awkward because when somebody has been doing things in their way with no guidance, for someone to then come in and say “by the way, that’s all wrong. For 20 years you guys have been doing it the wrong way”.*

Like Kirsty, Dianne acknowledged their obligation regarding mandatory reporting. However, she posited that, unfortunately, reporting schools for inappropriate practices could result in worse outcomes for students with MSD. She said:

*There were some reports that went in about inappropriate practices and basically then the school shut their doors and that’s the trouble. I don’t think we want that; it’s not best for the students. I know we’ve got mandatory reporting guidelines but we want everybody being skilled up and doing what’s best for the child."

It was not only in the school context that SLPs identified obstacles to communication intervention. They also talked about the home contexts of students with MSD.

Home context

While SLPs perceived that parents played an important role in supporting their child’s communication access, both at home and school, they also stated that many parents did not have “the capacity” (Karen) or “the resources” (Chloe) to do this. They commented that the issues confronting families of children with MSD were many and complex. Chloe said: “*Nothing can prepare you for working with the gamut of family situations and circumstances of people with multiple and severe disabilities*”. These included: (a) time constraints at home, (b) parental exhaustion, and (c) cultural and economic factors.

Time Constraints at Home

Chloe commented that in many households both parents, or a sole parent, worked full time, and “barely coped” with meeting the personal care needs of children with MSD, as well as meeting the needs of other children in the family. SLPs reported that many parents lacked time for communication intervention in the home.
### Table 7.7
**Supports and Obstacles in the Home Context (Stage 4)**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Time constraints at home.</td>
<td>Parental exhaustion and no compliance with therapy.</td>
</tr>
<tr>
<td>Home context</td>
<td></td>
<td>Cultural and economic factors: cultural difference; low socio-economic status.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other more demanding issues eg mental health status.</td>
</tr>
</tbody>
</table>

**Parental Exhaustion**

Chloe also commented that often the parents of students with MSD were not “*strong advocates*” due to “*exhaustion*” from “*having to push for every single little thing*”. She added: “They’re not the people who kick up a fuss and say ‘Hey, if you don’t get my kid near that table in six weeks I’m going straight to the Minister’”.

**Cultural and Economic Factors**

SLPs reported that many of their clients with MSD came from Aboriginal families and/or families with low socio-economic circumstances. Karen and Nadia noted that often families’ priorities conflicted with their own notions of communication intervention. Karen said:

> *Their priorities are different. It might not be really important for their child to go to school and to get support. They just go day-to-day. It’s all about them being fed and having clothes and things. Not really their communication as much.*

From the SLPs’ perspective, obstacles associated with cultural difference and low socio-economic circumstances were “*compounded*” (Nadia) by geographical isolation, and so these issues are taken up in Part 5.

**PART 5: THE TYRANNY OF DISTANCE: GEOGRAPHICAL LOCATION**

“The kids with the most multiple and severe disabilities tend to be in the furthest away towns” (Nadia). This group of SLPs perceived that most supports and obstacles to communication opportunities for students with MSD in rural and regional areas were influenced by their geographical location. This level is represented in Figure 7.1 by the concentric circle surrounding Contexts. The SLPs talked about the impact of geographical location on: (a) recruitment and retention of health and education professionals, (b) access to professional development, (c) schools, (d) families, (e)
community attitudes, and (f) outreach SLP services. These are summarised in Table 7.8.

Table 7.8
*Supports and Obstacles Associated with Geographical Location (Stage 4)*

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment and retention of professionals</td>
<td>Difficulty recruiting and retaining teachers, SLPs and other health professionals in rural and regional areas.</td>
<td>Travel to attend conferences/workshops in metropolitan areas.</td>
</tr>
<tr>
<td>Access to professional development</td>
<td>Access to videoconferencing facilities and assistive technology, eg. Skype</td>
<td>Travel to attend conferences/workshops in metropolitan areas.</td>
</tr>
<tr>
<td>Impacts on schools</td>
<td>Travel to attend conferences/workshops in metropolitan areas.</td>
<td>Neglect of rural, regional and remote schools results in isolation, and persistence of restricted communication opportunities.</td>
</tr>
<tr>
<td>Impacts on families</td>
<td>Dissatisfaction with child’s schooling but unable to pursue grievances.</td>
<td>Cultural and economic factors in rural, regional and remote areas. Other complex issues; substance abuse, mental ill health, domestic violence, imprisonment.</td>
</tr>
<tr>
<td>Outreach speech-language pathology services</td>
<td>Working with local support people.</td>
<td>Inequity in service provision. Limited nature of the service; consultative model, limited collaboration with families, teachers and others.</td>
</tr>
<tr>
<td>Community attitudes</td>
<td>Enabling attitudes towards people with disability and services.</td>
<td>“Judgemental” attitudes towards people with disability. Negative attitudes towards services and service provision.</td>
</tr>
<tr>
<td>The role of technology</td>
<td>Limited access to videoconferencing facilities, eg. Skype.</td>
<td></td>
</tr>
</tbody>
</table>

**Recruitment and Retention of Professionals**

Those SLPs who reported growing up in a rural, regional or remote town (Part 1) also identified that as their reason for working rurally. They reported difficulty recruiting SLPs and teachers to work in rural areas. Karen said: “*There are so many available positions because they just can’t be filled. People don’t necessarily want to come to rural areas. If they don’t have some kind of connection or reason to come to a small country town, they don’t*”.
There was also reported difficulty retaining SLPs and teachers who came to rural, regional or remote areas. Karen added:

*So you get the teachers who are just doing their time, waiting and saving up their points until they can go to [capital city] or to the coast. So when they come, they’re maybe not really motivated [to stay]. So that’s an issue.*

Similarly, Karen perceived that it was difficult to recruit doctors and other health and education professionals into rural, regional or remote areas, resulting in inconsistent and unreliable services in some places. She concluded: “*You need some type of incentive to get good professionals and professionals who want to stay*”.

**Access to Professional Development**

SLPs also reported that for professionals in rural, regional and remote areas, the travel required to attend conferences and workshops was a major obstacle to accessing professional development. SLPs perceived that this was particularly a barrier for teachers in remote towns. Kirsty said:

*One of the biggest differences I notice is that teachers I work with in regional, and especially rural and remote areas, seem to get less professional development that’s specific to children with the types of disabilities that they’re working with, as compared to teachers based in metropolitan areas.*

She noted that courses were rarely held in rural, regional or remote towns and the travel to attend a 1-day workshop in a metropolitan area involved 3 days release from the classroom. Caitlin and Nadia added that schools rarely provided funding for teachers’ travel and accommodation as well as a relief teacher to take their class for the 3 days that may be involved. Dianne commented that, in addition, there may be no teachers in the town “*with the skills or the interest to cover their classroom*”.

Kirsty, however, perceived that teachers in rural, regional and remote areas had other means for accessing professional development, such as resources available on the internet (eg. Skype). She said: “*I think there are a lot of options out there. Teachers are not even using what is available to them*”, such as the state education system on-line tutorials and non-government organisation websites.
Impacts on Schools

Standards
As the most senior SLP, Kirsty perceived deterioration in educational provision for students with MSD in her area. She said: “I feel that schooling out here for students with disabilities is worse than when I first moved out here 10 years ago. I don’t remember as frequently walking into classrooms and just seeing students doing absolutely nothing”. She and Dianne perceived that the negative school cultures and inappropriate practices discussed in Part 4 were influenced by the geographical location of schools.

Isolation
Dianne perceived that the neglect of schools in rural, regional and remote areas, in terms of resourcing and professional development and other support for teachers, resulted in their isolation. Kirsty added that this isolation meant there was a lack of exposure to new philosophies that might change practices in these schools. She said: “Without access to some of those new philosophies and attitudes around the education of children with disabilities,” inappropriate practices and restricted opportunities for communication may persist. Dianne commented:

The shocking things that I saw were because people in country areas have been left to their own devices for such a long time. They’ve just done the best they can with nothing. They haven’t had anybody there with the knowledge base.

Further, Dianne perceived that schools in rural, regional and remote areas had either a lack of awareness, or an acceptance, of how little they received. She said: “It’s almost like they accept it and it’s not good enough. I think all of those settings need more from education and they need more from us, those outreach [schools]”. SLP outreach services are discussed following the discussion about impacts on families below.

Impacts on Families

Dissatisfaction with Schooling
Kirsty reported that in the majority of rural, regional and remote towns, there were families dissatisfied with their child’s schooling. She said:

What I actually deal with predominantly is a lot of unhappy families; families who are emotionally distraught about the education that their children who
have complex disabilities are receiving. It’s a huge concern out here. I have that experience in nearly every school I have worked in; parents who are very unhappy with what their children are doing during the day at school.

Kirsty added that:

Parents will not raise those grievances with the school or they will once, then they don’t feel they can pursue it because they don’t feel they have school options available to them. So they feel they have to stay on side as such with the school their child attends.

In addition, Chloe lamented that parents not pursuing grievances was “a barrier”, because consequently schools and government departments were not made accountable for providing services to support the communication access of students with MSD, an issue explored in Part 6.

**Cultural and Economic Factors in Rural and Remote Communities**

In contrast to the dissatisfied families described above, Nadia reported that clients from Aboriginal families in rural, regional and remote towns tended to have limited school attendance, and their families had limited participation in communication intervention for their child. She recalled:

In the more outlying towns, one of our speechies has a client in [remote town]. He’s a little Aboriginal boy in primary school and I think last year he went to school 5 days in the year and the school teacher is so motivated and so willing to help and has been given so much from our speechie, but he doesn’t turn up to actually do anything. Mum keeps him home because she says “he’s sick” but he has cerebral palsy, a severe disability, and he’s in a wheelchair. He’s always going to be like that.

Nadia perceived that in some rural and Aboriginal communities, families did not “acknowledge the gravity” of multiple and severe disabilities, and instead prioritised their child’s participation in the community. She added that consequently: “The priorities of the family aren’t about getting therapy”, but instead “taking a $1000 wheelchair and walking it down the river so that he can be with his cousins. There are so many [cultural] issues”.

Nadia perceived that in remote towns, families of children with MSD had many other complex issues, such as substance abuse, mental health issues, domestic violence and imprisonment of a parent or carer. She stated that as a result, these children were “not getting any” opportunities for communication at home.
Lack of Services

SLPs noted that families in rural, regional and remote areas were also disadvantaged by the lack of local health services. Kirsty reported “deterioration” in outreach services provided by other government departments. She also reported that families had to travel for specialist support services and clinics, such as paediatric dysphagia (swallowing disorders) clinics, to a capital city which may be many hundreds of kilometres away.

Families in rural areas also reportedly had few options for other, non-medical specialist support for their children’s complex needs. In recalling a particular client, Dianne made the point that students with MSD in “country towns” may lack exposure to a range of experiences and resources for maximising their potential, and so may be under-stimulated. She observed that their parents and teachers had “nowhere to go” for specialist support, for example with recreational activities. SLPs perceived that their own service to clients in rural, regional and remote towns was limited.

Outreach Speech-Language Pathology (SLP) Service

Inequity in Service Provision

SLPs perceived that there was inequity in access to support from SLP services for people in remote towns, compared to those closer to large regional centres. Despite the possibly greater need for support for students with MSD, their teachers and families in outreach towns, SLPs commented that more support could be provided in the regional centres or rural towns where they were based. Karen said:

In [rural town base] we can provide a block of therapy and we’re available if the teacher rings us because they are stuck on something. We can go to the school and we can model it again, and problem solve it, whereas you can’t so much do that in [small outreach town 300 kilometres away].

Dianne added:

I think that some people say it’s impossible and they just never get to them [students in remote locations]. Quite honestly, they don’t get the same access as the closer people do. I’ve been encouraged to not do the outreach as often but in actual fact they’re getting a disservice. They deserve to be seen as often as everybody else locally.

She commented that in many outreach towns “people have given up hope” and do not even make service requests.
**Limited Nature of the Service**

Hence, SLPs talked about obstacles associated with the size of the geographical areas they covered and the time required for travelling to rural, regional and remote towns. Caitlin and Karen reported that these issues restricted both the number of children that could be seen and the frequency of visits to their schools and homes.

*Consultative model.* Karen commented that the infrequency of visits meant that: “You basically only have a consultative model of service delivery when you’re doing outreach”. She recalled going to a small rural town to set up a communication system in the home, school and respite facility “and then going [back] out to find that nothing had really happened in 4 months. So that’s quite disappointing. If they were in my town I could be going there every couple of weeks seeing them, doing some more modelling and coaching them a bit better”. She agreed with Mandy and Dianne that it was very difficult to offer a “worthwhile service” (Mandy) to remote towns, particularly for building capacity in schools where inappropriate practices had been observed. SLPs viewed this model as antithetical to the communication intervention and collaboration practices discussed in Part 3.

*Limited collaboration.* Karen commented that the infrequency of visits was a barrier to collaborating with families, teachers and others to implement communication strategies. She said:

> Because you’re only going out there once per term, you really can’t have a good collaborative relationship, because you are not involved for long enough. It is difficult to establish relationships with schools and particular teachers on outreach.

Nadia stated: “It takes a long time to build rapport” with families and teachers in remote towns because they lack trust in a service that has been inconsistent, and are unwilling to implement communication strategies without follow up support. Nadia said: “We’re going into families who’ve had a quick succession of different therapists so it takes you a good 12 months to get them to trust you, to even think about implementing what you’ve recommended”.

In addition, Nadia noted that it was difficult to provide the level of on-going support required for high tech speech generating communication devices. She said: “I’ve just found that high tech devices are really difficult for our geographical population. It’s not that they wouldn’t suit the clients. It just doesn’t work because we don’t have the follow up support”.

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Working with Local Support People

Due to the limited nature of the service and the influences of community attitudes (discussed below), Karen and Nadia spoke about the need to work with a local support person in each remote town. Karen described working with case managers, employed by the same government department and located in two small, outreach rural towns 300 kilometres away from her base. She reported that during her visits, the case manager accompanied her to all appointments. Goals and communication strategies were developed collaboratively, if possible, with the family and school. Subsequently the case manager provided follow-up support for the family and school, and maintained telephone and email contact with Karen in between her visits. She stated that the case managers supported the outreach service because: (a) parents, teachers and others knew and trusted them, and (b) they were “on the ground” constantly monitoring and supporting communication intervention. She said:

They’re the local link to therapy. They do the touching base with the family and checking in on services and calling in to the school to check that the therapy intervention is being done and then they will call me and say “I talked to Mrs. X today and everything’s going well” or “She was concerned about this”. They’re really just the link between the two. They keep things connected.

She added that in remote Aboriginal communities it was not possible to provide a service without working with a “local, Aboriginal support person”. However, as Caitlin stipulated, such local support people did not exist in many towns, and community attitudes had a major influence on the possible impact of SLPs in remote places.

Community Attitudes

Kirsty commented that community attitudes could be a barrier, or an enabler, to communication intervention for children with MSD in that community.

Attitudes towards People with Disability

Karen perceived that, given their isolation, the attitudes and practices of some parents, school staff and others in remote towns not only reflected limited exposure to people with disabilities, but also the “belief system” in their community which “could be quite judgemental”. She talked about: (a) “too low or too high expectations” of what people with disability could do, (b) outdated notions about age-appropriateness of activities, and (c) limited understanding of challenging behaviours. She also found
that there was a tendency to treat people with disability as a homogenous group, rather than being aware of individual needs.

**Attitudes towards Services**

Nadia also talked about community attitudes towards services and agencies from outside the community. While she noted the need for SLPs to work with a local support person known in the community (discussed above), she also found that this person could still be treated with suspicion by some in the community. She said of a local support worker:

*Some parts of the community don’t trust her and try to undermine her. She gets called a “coconut”; black on the outside, white on the inside, by Aboriginal people in that community. It’s a whole different mentality out there. It blows me away.*

Nadia commented that the subtle differences in attitudes and perceptions in different remote communities meant SLP services needed to be provided differently in each remote town. She commented that these subtle factors were the biggest obstacles for SLPs working in these towns.

**The Role of Technology**

Hence, teachers in small, remote schools, and SLPs in “sole positions” (Chloe) in remote towns were perceived as “isolated” (Mandy). Caitlin commented that, despite this isolation, there was little access to video-conferencing technologies, such as Skype, in some rural towns. She added that this technology could potentially reduce their isolation by increasing the frequency of contact between teachers, families and SLPs, as well as reduce the amount of travel for SLPs providing outreach services.

In light of the many issues associated with geographical location, SLPs perceived that the government had an important role in supporting students with MSD, their families, teachers and SLPs, in rural, regional and remote areas. The supports and obstacles identified at this level are discussed in the final part of the chapter.

**PART 6: THE ROLE OF GOVERNMENT, SOCIAL POLICY AND LEGISLATION**

This part presents the perceived influences of governmental and social policy on supporting the communication access of students with MSD in rural areas. This theme
is represented in Figure 7.1 by the concentric circle surrounding Geographical Location. SLPs talked about: (a) the state education system, (b) the government department employing SLPs, and (c) co-operation between government departments. These are summarised in Table 7.9. Recommendations for improving delivery of services to students with MSD in the region are summarised in Table 7.10.

**The State Education System**

SLPs talked about how the organisational culture of the state education system and its limited capacity building of schools, presented obstacles to communication access for students with MSD.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Supports</th>
<th>Obstacles</th>
</tr>
</thead>
<tbody>
<tr>
<td>State education system</td>
<td>Organisational culture: focus on curriculum with limited support for modifying.</td>
<td>Limited guidance for IEPs. Unsupportive approach to challenging behaviours. Limited capacity building in schools: limited support into schools by departmental staff. Lack of co-ordination between schools in an area. Lack of support for inexperienced teachers.</td>
</tr>
<tr>
<td>Department employing speech-language pathologists (SLPs)</td>
<td>Social policy and evolution of the organisation: establishment of a service. Capacity building in the organisation. Supporting families with low incomes. Flexible time frame for service requests.</td>
<td>Service delivery model: short time frame for service requests; targeting individuals instead of influencing environments; the prioritization system and waiting list. Small number of SLPs for a geographical area. Perceptions of the service: “No point” referring for SLP. Demoralising for SLPs.</td>
</tr>
<tr>
<td>Inter-agency co-operation</td>
<td>Limited knowledge sharing.</td>
<td>Limited co-ordination of staff/services.</td>
</tr>
</tbody>
</table>

**Organisational Culture**

Kirsty perceived that the state education system had little commitment to the education of students with MSD. She commented that even if teachers access “**good up-to-date professional development, they go back and the culture doesn’t support the****
implementation of it. How awful it must be to be working in a system where you want to do all these things and the system just keeps saying: ‘Nope, nope, nope’.”

**Participation in learning.** Other SLPs stated that the departmental focus on mainstream curriculum and Key Learning Areas (KLAs) was accompanied by little support for teachers to modify the curriculum so as to facilitate the participation of students with MSD. Dianne added that there was a lack of guidance from the education system for the development of students’ IEPs, and that this was a barrier to effective collaboration between teachers and SLPs. She said:

> I have been to some horrific IEP meetings where people do not understand the point of it. It should be interactive, it should be positive, it should be goal setting, it should be specific [instead] it’s just a rant about somebody’s behaviour and that should not be happening.

**Approaches to challenging behaviour.** Kirsty added that the education system in her region did not appear to promote a positive approach to students’ challenging behaviour, and this was an obstacle to supporting the students’ communication needs. Similarly to Nadia’s comment about community attitudes towards the behaviour of people with disability, Kirsty perceived that the education system viewed students with challenging behaviours as “naughty” when “in fact students don’t have anything to do and communication systems aren’t being put in place so their basic needs aren’t being met”. SLPs believed that this organisational culture potentially influenced the negative cultures observed in some schools (discussed in Part 4).

**Capacity Building in Schools**

SLPs also talked about the limited support provided to individual schools, particularly in rural, regional and remote areas, by departmental staff, such as integration officers and specialist support teachers. Karen and Nadia noted that such staff in their region could support a school to implement communication strategies. Nadia said: “If you can get them on board, get them at meetings and get them pushing from that aspect, then you start to get a lot more happening. Without that senior support everything just falls by the wayside”. They noted, however, that there was a lack of such staff “to drive” (Nadia) teachers’ practices. Dianne agreed: “Sometimes I am amazed to think that these [inappropriate] practices are happening and nobody’s been supporting them. Nobody from the [state education system] has been there”.

**Lack of co-ordination between schools in an area.** In addition, Kirsty and Dianne talked about the limited organisational culture of facilitating networking, co-
operation and sharing between schools. So, Dianne commented that teachers were not informed about what was happening in other schools, nor encouraged to visit “to see what’s possible with PECS, signing, interactive whiteboards, iPads. I don’t think there’s enough sharing. There should be. These schools could be linked and support each other”. Kirsty described her own attempts to establish mentoring between teachers in the same area, because of the perceived need for this support. She said:

In this area, we’ve tried to set up learning, mentoring-type relationships between schools in rural towns where there are teachers in units in mainstream schools with some of the teachers who are working in special schools in [regional centres]. Because the special schools are utilising the kinds of philosophies that we feel would best meet the needs of kids with complex disabilities, that could be a way to support the teaching staff there, but it hasn’t been overly successful.

Kirsty added that the impetus for this networking between schools needed to come from the state education system. Dianne perceived that these factors contributed to the isolation of schools in rural and remote areas (discussed in Part 5).

Lack of support for inexperienced teachers. Nadia and Chloe noted that, across their region, the state education system was allocating teachers with no special education training or experience to segregated classes. Nadia added:

If you don’t get a good teacher or support from somebody [and they’re] left to their own devices, then the whole thing falls apart. It’s really awful for the kids who we work with because they’re the ones that miss out.

According to Dianne, this situation was compounded by limited departmental support for these teachers to access professional development and to collaborate with SLPs.

**Government Departments Employing Speech-Language Pathologists (SLPs)**

SLPs also perceived that there were supports and obstacles to supporting the communication access of students with MSD in rural areas, associated with their own organisational structure, policies and procedures. They talked about: (a) social policy and the evolution of the organisation, (b) the service delivery model, (c) the current establishment of SLPs, and (d) perceptions of the service.
Social Policy and the Evolution of the Organisation

Nadia recalled that a change in government policy approximately a decade ago, and a social policy called “Stronger Together”, resulted in the evolution of SLP services for students with MSD in the region. She said:

*When I started, you had to pay for your own professional development and there never used to be money for therapists. Gradually, we got a little bit here, a little bit there and slowly as we’ve gotten senior therapists and more of a voice, it has changed. In 8 years we’ve come a long, long way.*

Building capacity. According to Nadia, the organisation has been pursuing advancement of its knowledge base and practices through: (a) working with universities to conduct research on models of service delivery, (b) hosting regular 2-to-3 day professional development events for all its therapists, and (c) supporting interdisciplinary student placements in rural, regional and remote towns. SLPs perceived that the multidisciplinary culture of their organisation was one of its strengths. SLPs also described the organisational support for individual therapists through funding for professional development and supervision (discussed in Part 2). Mandy commented that the organisation has been family-friendly and flexible in accommodating her needs as a parent of small children.

Supporting families. SLPs also noted the organisation’s funding support for families with low incomes, to purchase communication resources that would otherwise be inaccessible. SLPs commented, however, that their organisational obstacle was the service delivery model.

The Service Delivery Model

Time frame for service requests. SLPs described a conflict between the organisation’s philosophies of “person-centred”, “family-centred” and “evidence-based practice” and its service request policy and process. They noted that the organisation’s time limit for service requests was an obstacle to supporting the complex needs of students with MSD. Mandy said: “You’re looking at a term or so to set two goals, get in, do them and get out. It doesn’t work like that at all really”.

However, Nadia, Chloe and Kirsty reported that, in their region, they exercised flexibility in the time frame for service requests. Nadia said:

*We don’t stick to the strict 3 to 6 months that other regions do. We can’t because [name] goes to [rural, remote town] once a term, and [name] goes to [rural, remote town] once a term. So [with] a 3 month turn around you
[would] get one face-to-face contact and no follow up. That doesn’t address all the issues. So, that 3 to 6 month stuff doesn’t work for our region.

**Influencing environments.** However, SLPs also perceived a conflict between the “service request paradigm” (Dianne), which targets individual students with MSD, and the communication intervention paradigm (discussed in Part 3), which advocates changing environments. Mandy and Dianne commented that the service was not structured to influence environments in a way that would result in lasting communication access for students with MSD. Dianne said: “We can’t change the person but we can change the environment and the big thing is this; our intervention is not targeted at environments”. Dianne described the service delivery model as a “random approach” that resulted in “throwing darts out in the wind”. She added:

> I can be asked to fly here and then fly there and then a week later fly back out there and when I was out there, there was a problem [but when] I go back its still a problem because that environment hasn’t changed.

Mandy and Clare also noted that focussing on one individual in a context, such as a classroom, was an obstacle to working with the other students (who may be on the waiting list) to create opportunities for communication and make changes in “the whole class context” (Mandy).

**The prioritization system and waiting list.** Clare, Chloe and Dianne noted that the service’s prioritization system and waiting list resulted in students with MSD waiting years for support with their communication needs, or not being seen at all. They reported that priority was given to service requests regarding eating and drinking, risk of family or school placement breakdown, and challenging behaviours. Service requests regarding the communication needs of students with MSD were not given priority and could “sit” on the “huge waiting list for a long time” (Clare, Chloe). Chloe recalled a parent who said: “Well, where’s my speech pathologist? Why are we waiting so long? We put in our referral 3 weeks ago”. Chloe recalled thinking to herself: “Three weeks ago means that you’re about 120th on the list of people that we’re trying to accommodate at the moment. People are sitting on our waiting list for 2 years before they get a service, which is horrible”. Dianne noted that after 2 years, referrals may no longer be appropriate and/or staff and families are no longer interested in a service. Chloe reported that these issues were compounded by other issues described below.
**Number of Speech-Language Pathologists (SLPs)**

Despite the evolution of the organisation, Clare, Chloe and Kirsty described the small number of SLPs in the region as an obstacle to supporting the complex communication needs of students with MSD. Chloe stated that her regional centre had 1.5 SLP positions for “the large body of people” in the regional centre itself, as well as outreach to rural towns. She commented that the small establishment of SLPs made it difficult to cover the large geographical area and meet the need for the service in rural, remote towns. She added that positions were not always filled, particularly in rural towns, as discussed in Part 5, compounding long waiting lists and resulting in service requests not being met “for a long time”.

**Perceptions of the Service**

Chloe and Dianne believed that these issues resulted in families’ and teachers’ perceptions that there was “no point” (Chloe) referring to the government department for a SLP service. Clare and Chloe noted that they received few service requests for supporting the communication of students with MSD. Dianne said: “I think often we are hated because we are not being supported to work the right way”. She added that SLPs wanted to make a difference but in this system it was difficult for them to demonstrate their skills and commitment, so they derived little satisfaction from their work. Chloe agreed that the obstacles discussed here could be “demoralising” for SLPs.

**Co-operation between Government Departments**

Finally, SLPs perceived that, in addition to the issues of each government department, limited co-operation between the departments, at a regional level, also presented obstacles to communication intervention.

**Knowledge Sharing**

SLPs noted that there was little organised knowledge transfer between the two departments. Caitlin said: “We don’t have a system for delivering in-servicing to all schools. It’s based on individual schools asking for that”. Chloe added: “The schools that get in touch are very pro-active and positive schools anyway so we probably miss the people that potentially could benefit from some of the advice that we have to give”. Karen also noted that there was very little information given to SLPs about curriculum and relevant issues in the state education system.
**Limited Collaboration**

Chloe reported finding it “incredible” that after working with her department for many years, she only recently discovered that the state education system had “disability liaison officers”. She said: “We just don’t know what exists there that can actually assist or facilitate the things that we are trying to achieve, and for one government department to be saying that about another government department is terrible”. Further, Chloe perceived that because of SLPs’ huge caseloads and waiting lists, it was difficult to prioritise “building links” with staff in the education system. However, she added that without building these links “we basically shoot ourselves in the foot”. In light of this, and other obstacles discussed in this chapter, the next section outlines recommendations for change made by the SLPs.

**Recommendations for Service Delivery**

SLPs made recommendations for improving support for students with MSD that had implications for: (a) the state education system, (b) collaboration between teachers and SLPs, and (c) the department employing SLPs. These are summarised in Table 7.10.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>State education system</td>
<td>More professional development support for teachers in isolated schools.</td>
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<td></td>
<td>Better resourcing of isolated schools.</td>
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<tr>
<td></td>
<td>Support for school attendance of Aboriginal students with MSD.</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Organisational frameworks for collaboration between teachers and SLPs.</td>
</tr>
<tr>
<td>Department employing speech-language pathologists (SLPs)</td>
<td>SLPs to be based in schools.</td>
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</table>

**State Education System**

SLPs made specific recommendations for improving support for students with MSD in rural, regional and remote schools. Kirsty recommended that more professional development support be provided for teachers in isolated schools. She suggested that the state education system develop:

Some flexible ideas that could be as simple as working out a way that teachers get extra release time each week that has to be used towards professional
development activities in lieu of the fact that they don’t get to go to many courses.

Dianne also recommended that isolated schools be better resourced. Karen added that additional funding could be provided to schools with “a high Aboriginal population” and/or “isolated schools” to use for their own capacity-building projects. Further, Nadia recommended a more consistent support across rural, regional and remote towns for the school attendance of Aboriginal children with MSD. She said:

If the school system out there isn’t supporting kids with the most severe disabilities to get to school then how can we look at changing anything? In [regional centre] there is an Aboriginal population at the school and they do door knocks. They do education programs. They do a heap of stuff to get those kids to school. Why can’t it be happening in other towns as well?

Collaboration

Nadia and Chloe recommended that government departments provide more “supportive frameworks” for collaboration between teachers and SLPs. Chloe added that this support was crucial because SLPs and teachers could achieve little as individuals, without organisational support. She said:

The issue is that you can push at this level, the same as a teacher in a classroom pushing to get a child at a desk, you can push at this level but unless you get support from above that, you won’t ever achieve anything.

Department Employing Speech-Language Pathologists (SLPs)

The five SLPs who made recommendations agreed on a model of basing SLPs in schools, as in other states such as Queensland and Victoria. Chloe said: “It is [currently] difficult in that we are a separate entity”. Nadia added: “If we could get speech pathologists into schools it would probably make a difference”. Nadia and Chloe noted that this recommendation was being considered with a submission before parliament for creating SLP positions in schools. Karen also talked about a central school in a small rural town in her area that employed a SLP to work at the school. SLPs perceived that there were a number of advantages associated with such a model.

Building rapport. Chloe commented that having a physical presence in a school would result in SLPs feeling less “isolated”, and like outsiders, in the school. Karen and Chloe also stated that it would facilitate building the rapport and relationships with teachers necessary for collaboration, and also enable SLPs to become more familiar with the students and the context. Clare said:
If you’re in a setting all the time, you’re just more in tune with what’s going on in the classrooms [and] the school as a whole, and you know the children more as well; their behaviours and different alertness times during the day.

**Influencing the context.** SLPs perceived that by being based in a school they could have an impact on classroom contexts, and building the school’s capacity to support communication access for students with MSD. Dianne talked about building “core competencies” in a school, such as “having a routine supported by visuals”, positive behaviour support, choice-making, and expectations that all students with MSD communicate. She added: “If every school did that, it would be brilliant”. She also talked about supporting individual staff at a school to develop areas of interest and expertise, such as in assistive communication technology. However, unlike Nadia and Chloe, Dianne did not foresee that SLPs would be based in schools in the near future.

**The Process of Change**
Finally, Dianne spoke about the process of change. She commented that, while “systematic” change was needed in both the education system and SLP service, this needed to be “done in a thoughtful way, planned and developed carefully”. She thought that an inclusive “conversation” needed to be initiated about “what a different way might look like”. She commented that, although this conversation might prove “very challenging”, without it teachers, SLPs and families would be alienated.

**SUMMARY**
This chapter presented the perceptions and experiences of SLPs in rural, regional and remote areas, some of whom provided an outreach service to students with MSD. Like teachers and SLPs in metropolitan areas, they identified a broad range of factors perceived to support or hinder the communicative interactions of students with MSD, as represented in Figure 7.1. Like their colleagues in metropolitan areas they talked about the individuals (teachers and families), and processes, perceived to influence communication access for students with MSD. They talked about the necessity of these individuals collaborating, to make communication intervention happen for students with MSD. They also talked about how communication intervention occurred in contexts and was influenced by these contexts, as well as broader contextual levels.

However, for these SLPs in rural, regional and remote areas, issues associated with geographical location and community attitudes permeated, or had implications
all levels of supports and obstacles to communication access for students with MSD. They talked about the obstacles presented by geographical isolation and the limited services in rural areas generally. They perceived that these issues had implications for the government departments responsible for providing services for students with MSD and their families. The SLPs also emphasised the influence on students’ families, teachers and SLPs of discourses and philosophies about people with disability, and the cultures of their workplaces, organisations and communities. Their discussion of cultural and economic factors also highlighted the role of gross and marked social inequities (represented by the outermost circle in Figure 7.1) in the communication access of people with MSD.
CHAPTER 8
DISCUSSION

The purpose of this study was to explore supports and obstacles to the communicative interactions of students with MSD. A qualitative methodology, involving in-depth interviews, was employed in order to give participants (teachers and speech-language pathologists) opportunities to share their perceptions and experiences of factors that presented supports and obstacles to the communication participation of these students.

Seven major themes emerged from the findings of this study. These themes represent the multiple levels, contexts and/or processes in which supports and obstacles to communicative interactions for students with MSD were embedded. They are:

- teachers’ and speech-language pathologists’ (SLPs) attitudes, perceptions and beliefs, and their relationship to communication practices;
- the school context;
- communication intervention and the implementation of best practice (including the role of professional development);
- the family context and families’ attitudes, perceptions and beliefs;
- the geographical location;
- government departments; and
- societal factors.

These themes have informed the development of a model for enhancing the communication access of students with MSD, represented in Figure 8.1. Following a brief summary of participants’ experiences communicating with students with MSD, the seven themes will be discussed. This will be followed by elaboration of the model developed from these themes.

COMMUNICATIVE INTERACTIONS OF STUDENTS WITH MSD

There was consensus that the communicative interactions of students with MSD were difficult for the students, for their communication partners and for the professionals supporting them. This is consistent with the literature (Butterfield & Arthur, 1995; Grove et al., 2001; Munde et al., 2009). However, it was not only the characteristics of students with MSD that put some of these students at risk of limited engagement in
activities or restricted communicative interactions at school, as discussed in the literature (Arthur, 2003, 2004; Arthur et al., 1999; Foreman et al., 2004; Foreman et al., 2007; Houghton et al., 1987; Langley & Lombardino, 1987; Reichle, 1997; Rowland, 1990; Sigafoos & Iacono, 1993; Sigafoos et al., 1994). The findings also confirmed that the contexts in which students were situated exert an influence on the manifestation of the effect of their impairments. Participants perceived that limited communicative interaction, and participation in activities resulted in students who were passive, depressed and under-achieving, consistent with other research (Arthur, 2004; Munde et al., 2009; Clarke et al., 2011).

Participants identified a broad range of complex, inter-connected factors that presented barriers to communication opportunities for students with MSD. However, experiences of successful communication with individual students indicated that positive outcomes were possible for students with MSD. The findings revealed that these complex, inter-connected factors could act as supports or obstacles depending on the particularities of the contexts. One example of these factors is attitudes, perceptions and beliefs.

THE THEMES

Teachers’ and Speech-Language Pathologists (SLPs) Attitudes, Perceptions and Beliefs, and their Relationship to Communication Practices

Teachers were recognised as important communication partners for students with MSD. Similarly, SLPs were recognised as having an important role in supporting students’ communication access. Teachers’ and SLPs’ attitudes, perceptions and beliefs were perceived to influence their teaching and communication intervention practices with students with MSD. An association between teachers’ attitudes, perceptions and beliefs and their practices was also posited in research with people who use AAC (Kent-Walsh & Light, 2003; McCarthy & Light, 2005; Soto, 1997). However, findings of the present study indicated varying attitudes, perceptions and beliefs amongst teachers about the students’ capacity to participate in their education and to communicate, as well as towards their own role in supporting students’ communication opportunities. The findings also indicated that not all SLPs shared the same views about the role of teachers and the classroom context in communication intervention.
These attitudes, perceptions and beliefs were considered either enabling or disabling based on their association with teachers’ communication practices with students and SLPs’ communication intervention practices. Hence teachers’ disabling
attitudes, perceptions and beliefs were seen to present barriers to communication access for students with MSD, because of their association with restrictive, inappropriate practices, such as overlooking or excluding students by not modifying activities to facilitate their participation, and not creating opportunities for communication interactions. For SLPs, disabling attitudes (for example that the SLP is the expert) were associated with withdrawing students, and not working effectively or sensitively with the teacher, classroom context or peers. In contrast, enabling attitudes, perceptions and beliefs for both teachers and SLPs were associated with practices that supported communication access for students with MSD by incorporating communication opportunities and AAC systems into the everyday activities and routines of the classroom and school day.

The findings suggest that teachers’ attitudes, perceptions and beliefs also interacted with their knowledge and skills, interest in professional development, and involvement with communication intervention. Perceived disabling attitudes could have been a barrier to teachers seeking out professional development, as well as their receptivity to, and adoption of innovation in their classrooms. It is possible that if teachers did not see the capacity or the need to communicate in a particular student, they did not see a need to develop their knowledge or skills to be able to support the student’s communication access.

Therefore, the findings indicate the importance of teachers’ and SLPs’ attitudes, perceptions and beliefs for the communication opportunities of students with MSD. This theme informed the Individual Level of the model. However, the task of understanding attitudes, perceptions and beliefs is complicated by the interactions between individual professional’s attitudes and broader contextual factors. The findings suggested that the relationship between teachers’ and SLPs’ attitudes and their practices was not direct and linear but mediated by contexts, consistent with complexity theory (Packman & Kuhn, 2009). These included: the prevailing culture in particular schools and access to professional development support, exposure to socio-professional discourses and the organisational cultures and structures of the state education system and the department employing SLPs, and prevailing attitudes in the broader community. These are discussed in the ensuing parts of this chapter. Individual teachers’ attitudes, perceptions and beliefs interacted with their school context in complex ways, as discussed in the next section. The impact of the school
context on the relationship between SLPs’ attitudes, perceptions and beliefs and their practices is discussed under communication intervention.

The School Context
The findings indicated that opportunities for communicative interactions, and individual teachers’ attitudes and practices and their knowledge and skills were nested within their school context. This theme informed the School Context part of the model.

The Classroom
The most immediate context that influenced individual teachers’ practices was the classroom. Participants’ reports about different combinations of students, and physical spaces, suggested that each classroom had its own unique characteristics. The particular social and structural features of classroom contexts presented teachers with obstacles to implementing communication practices, regardless of their attitudes, perceptions and beliefs.

Combinations of students. Consistent with previous research (Foreman et al, 2004), the findings indicated that meeting the diverse, complex needs of students in segregated classrooms presented teachers with management issues and restricted the amount of time they spent communicating with individual students. Even teachers with enabling attitudes found it difficult to incorporate communication into often chaotic classrooms.

However, notwithstanding methodological differences, there was little evidence to support Foreman et al.’s (2004) findings that students with MSD in mainstream classrooms had more frequent communicative interactions. The findings of the present study suggest that the potential for communication opportunities in mainstream classrooms was not realised due to a number of obstacles. These included teachers’ difficulties modifying the curriculum and classroom activities to facilitate students’ participation. Whole group lessons, in particular, appeared to focus teachers on the other students in the class, often to the exclusion of the student with MSD. The reported reliance on learning support officers (LSOs) in the classroom may also have had the potential to isolate students with MSD from peers within mainstream classrooms.

Peer interactions. In addition, limited peer interaction in mainstream high school classrooms suggests that physical proximity to peers without disabilities is not
a sufficient factor to promote communication access for students with MSD. This finding is consistent with previous research (Calculator, 2009; Cutts & Sigafoos, 2001; Downing, 2006; Hughes et al., 2002; Kent-Walsh & Light, 2003). However, this may also have been influenced by limited support for peers without disabilities to interact with students with MSD. Teachers in mainstream primary classrooms appeared to be aware of this and attempted to involve specialist teachers from outside the school to teach peers without disabilities to use Makaton/Key Word Signs (KWS) (Brownlie & Bloomberg, 2011; Walker, 1993). The facilitation of peer interaction in segregated classrooms also required programming, and specific resources and activities. However, there was little evidence of systematic support for peer interaction, in any type of classroom setting.

 Organisation of physical space. The findings also suggest that organisation of physical space in a classroom can exclude students with MSD from participation in activities and opportunities for interaction. For example, such exclusion may occur when students cannot fit their wheelchair in proximity to peers or at a desk. Conversely, the findings indicated that having adequate space and organising the space in the classroom to accommodate a student’s wheelchair, enabled physical proximity to peers and involvement in activities, thereby access to potential opportunities for communicative interactions.

 Nesting within broader school context. Findings of variable management in classrooms also suggest these were nested within, or interacted with the broader school context. Factors in the school context appeared to either compound obstacles in the classroom, or support teachers to overcome these. Obstacles associated with the combinations of students in some segregated classrooms appeared to be compounded by inadequate staffing, limited resourcing, and time constraints in the school context. In contrast, teachers reportedly able to structure segregated classrooms to facilitate communication opportunities and participation in activities, or to modify curriculum activities and incorporate communication supports into lessons in mainstream classrooms, appeared to be supported within the school context, through adequate staffing and resourcing and other factors discussed below. The findings imply that the needs of particular classrooms require tailored support from the school as a whole.

 Type of Educational Setting
Participants’ perceptions that support units (SUs) in mainstream schools had less capacity than special schools (SSPs) to support the communication of students with
MSD suggested an influence of the type of educational setting. However, this contradicts the findings of Foreman et al. (2004), and recommendations made in the best practice literature about educating students in least restrictive environments. These findings imply that further attention is required to the capacity of mainstream schools to support the communication of students with MSD, if these students are to be educated in least restrictive environments.

Further, the conclusion that the type of educational setting alone influenced communication access for students with MSD, was challenged by: (a) the variable findings from mainstream teachers regarding their school’s capacity to accommodate students with MSD, and (b) reports from SLPs of large variability in communication support provided for students with MSD across schools, regardless of the type of educational setting. The findings suggest that one of the factors mediating the influence of the type of educational setting was the culture of a particular school, as well as interactions between factors in the school context that made up its capacity. These are discussed below.

**School Culture**

The findings suggest that the dominant or prevailing philosophy within individual schools varied. They also appeared inter-connected with individual teachers’ attitudes, perceptions and beliefs and practices, and therefore influenced the communication opportunities for students with MSD.

*The dominant or prevailing philosophy.* Participants perceived the cultures of different schools as negative or positive depending upon whether attitudes and practices of staff limited or supported communication access for students with MSD at that school. Schools with a positive culture were reported to have a philosophy of expecting the educational and communication needs of students with MSD to be supported at their school. Reports of a school-wide focus on communication, or a sense of community within a school, comprising positive attitudes and social/emotional support for students with MSD, suggested that the staff at these schools had shared meaning. This is consistent with a “shared moral commitment” (Fullan, 2001, p.47) toward meeting the educational and communication needs of students with MSD. Such shared meaning was associated with positive communication outcomes for students.

By contrast, schools with negative cultures were perceived to lack philosophies about supporting the education of students with MSD. Instead, they were
characterised as having limited commitment to including students in the broader school community, and/or limited expectation of achieving educational goals and meeting students’ communication needs. Participants perceived that some schools focused on students’ deficits and took the attitude that they could not accommodate their needs. The reported minimal integration of students with MSD in SUs may have been an example of this school culture. Such cultures were associated with restrictive and other inappropriate practices which limited students’ participation in activities and opportunities to communicate, or disregarded potential communicative attempts. So, it appeared that the culture of a school impacted the communication opportunities for students with MSD at that school, as suggested by Schmitt and Justice (2011). Further, one of the mechanisms by which this occurred was teachers’ interactions with the culture.

*Teachers’ interactions with the prevailing school culture.* It appeared that individual teacher’s attitudes, perceptions and beliefs and their practices interacted with these prevailing philosophies in complex ways. The finding that staff at the same school, including teachers and LSOs in the same classroom, could have different attitudes, had several implications. Firstly, in the absence of a shared meaning or shared moral commitment to students with MSD, individual teachers interacted in different ways with the negative cultures of their schools. Some teachers reportedly adopted the dominant disabling values and practices, thereby also contributing to their perpetuation. However, reports also suggested that teachers with enabling attitudes who found themselves in schools with negative cultures could experience this conflict in values as stressful. They could also experience a sense of powerlessness to make changes to the philosophical and practical obstacles (discussed in greater detail below) that restricted their ability to enhance students’ communication opportunities. There was consensus that such situations were isolating and a potential source of burnout for teachers. Yet other teachers attempted to change attitudes and practices of others and introduce innovation. They were aware, however, that disabling attitudes were an obstacle to openness to new ideas and practices, making change and innovation very difficult.

Secondly, in the absence of shared meaning within a particular school, there were other sources of influence on individuals’ attitudes, perceptions and beliefs, as discussed below. While these other sources of influence also need to be addressed, the findings indicate the importance of the evolution of strong shared meaning and goals
among staff in a school for constantly reviewing and improving their ability to meet the communication needs of students with MSD. It could be argued that such a strong, positive culture has the potential to provide philosophical support for enabling attitudes and practices of individual teachers.

**Capacity Building**

The prevailing culture of a particular school was also closely inter-connected with its capacity to cater for the communication needs of students with MSD. Capacity appeared to comprise a number of inter-connected factors in the school context, including staff development support, infrastructure and resources. These are similar to factors identified by the teachers in Kent-Walsh and Light’s (2003) study as crucial to the inclusion of students who use AAC. Factors outside the school were also associated with a school’s capacity, as discussed later in the chapter.

- **The principal.** The findings suggest the principal’s values played an important role in the extent of philosophical and practical support provided to teachers for facilitating communication opportunities for students with MSD at the school. Principals could support or hinder teachers by their degree of involvement with debriefing and access to professional development, as well as funding for adequate resources or additional staff in the classroom. Therefore, the findings imply that principals also need to be involved in processes of evolving enabling philosophies and linking these to capacity building in their school.

- **Staff support and development.** The capacity of teachers to facilitate communication opportunities for students with MSD was closely connected with their professional development support needs. The findings had two main implications: (a) teachers’ knowledge and skills were contextualised, and (b) schools were important contexts for supporting individual teachers’ professional development needs.

  The findings suggest that interactions between the complex communication needs of students with MSD, and the demands of particular classrooms (discussed above) defined the knowledge and skills required by teachers. However, the study also indicated that even teachers with enabling attitudes had gaps in knowledge and skills, discussed in the literature, required to communicate with students with MSD (Arthur & Butterfield, 1993; Butterfield, 1991; Butterfield & Arthur, 1994, 1995; Downing, 2001; Foreman et al., 2004; Iacono et al., 1998; Langley & Lombardino, 1987; Siegel-Causey & Bashinski, 1989; Sigafoos, 1999).
The finding that this was the case not only for early career, mainstream teachers, but also teachers who had been working with these students for years, suggested that many teachers received little support within their school context for developing the knowledge, skills and practices they required to support communication opportunities for students with MSD.

In addition to, or perhaps more importantly than accessing external courses, the findings suggest that the professional development needs of teachers involved support from other staff within their school, as well as collaboration with people from outside the school. The findings indicate the potential of collegiality among staff at a school to support the professional development needs of individual teachers. Teachers’ reports of regular, ongoing opportunities for peer learning; constant improvement and innovation with support for implementation and practising skills and the development and sharing of resources, were associated with perceptions of being adequately supported in order to overcome the socio-structural obstacles in their particular classrooms.

By contrast, limited sharing of resources and too few opportunities for teachers to work together or meet to share and develop knowledge and skills, were associated with teacher reports of being unsupported and feeling isolated. These teachers reported struggling alone to overcome the socio-structural obstacles to communication access for students with MSD in their classrooms. Further, perceived consequences of inadequate support for staff included exhaustion, burnout, and inappropriate practices.

Hence, the findings demonstrate the importance of professional development as an integral part of a school’s culture. It also indicates that professional development organised locally can be relevant to the needs of the particular school context, and suggests the concept that external courses provided at the school could also be valuable for capacity building in that context.

**Infrastructure and resources.** In addition to philosophical and professional development support, teachers identified material needs. The findings highlighted the need for an accessible physical environment to enable students’ participation and communication opportunities. Similarly, teachers highlighted the role of resources or materials in supporting teachers to modify curriculum, engage students in classroom activities and create opportunities for communicative interactions throughout the day. Identified resources included: designated computers and other assistive technologies,
equipment for activities, digital cameras, a wide range of AAC systems, and teaching materials and resources.

However, the findings suggest that teachers had variable access to resources depending on their particular school culture. The perception that mainstream settings, including SUs were under-resourced, and received limited support for implementation of resources, had implications for the capacity building needs of particular schools. Further, the perception that even supportive principals had budgetary restrictions in the amount of support they could provide teachers for communication resources raised the issue of support from the state education system for capacity building in schools through resourcing.

Interestingly, teachers in SSPs appeared to respond to potential budgetary constraints by self-organising, a feature of complex systems (Mason, 2008; Packman & Kuhn, 2009). They reported developing their own school-wide resources, and raising additional funds for resources. Their ability to do the latter through local community organisations and businesses may have been associated with a unique identity of these segregated settings, and community perceptions of children with MSD. Nevertheless, these findings highlighted that individual schools are nested in local communities, and districts/regions that form a particular context and can provide much needed sources of external support.

**Communication Intervention: Implementation of Best Practice**

One of the needs for external support was for fostering the communication access of students with MSD. The findings suggest that there was both a need for collaboration with people outside the school, and supports or obstacles to implementation of communication intervention, a finding consistent with implementation science literature (Durlak & Du Pre, 2008; Fixsen et al., 2009). Findings that effective collaboration between professionals was necessary for teachers to meet the complex communication needs of students with MSD in their classroom, and for SLPs to implement communication intervention, were also consistent with the best practice literature (De Paepe & Wood, 2002; Harding et al., 2011; Kent-Walsh & Light, 2003; Sonnenmeier et al, 2005; Siegel et al., 2010; Soto, 1997; Soto et al., 2001). This theme was both closely connected with professional development and informed the Communication Intervention part of the model.
Professional Development Support Role: Sense of Community

The perception that collaborating with an outside professional (a SLP or visiting specialist teacher) in the classroom was more effective than attending workshops/in-services for influencing changes in practice, was consistent with the emergent body of literature on effective professional development (Fixsen et al., 2009; Houston & Little, 2007; Kaufman & Ring, 2011; Stephenson et al., 2011). Some teachers in particular contexts, such as SUs and mainstream classes in rural areas, needed additional support from outside their schools because of the limitations to internal professional development support presented by the limited experience and expertise of staff. Similarly, for some teachers, opportunities for regular, on-going collaboration provided the sense of community that was otherwise missing in their school context. These findings imply the important role of outside professionals in building the capacity of individual teachers within specific classrooms, as well as their potential to contribute to building capacity within particular schools as a whole.

Role in Capacity Building in Schools

Although SLPs reported having few opportunities to deliver communication education with groups of teachers, their positive reports suggested that providing in-services/workshops to all staff at a school enabled content to be relevant to the particular context, thereby contributing to building capacity in the school.

Supports and Obstacles to Collaboration

However, findings about variable experiences of collaboration indicate that other factors mediated the implementation of communication intervention. Findings about interpersonal factors that supported effective collaborative practices, such as open communication, are consistent with the literature (Hartas, 2004). The findings also indicate that individual professionals’ attitudes, perceptions and beliefs about students with MSD and about communication intervention influenced the effectiveness of collaboration. Collaborative practices were also nested within particular school contexts and organisational cultures and structures that could support or hinder them.

The findings imply that the consequences of limited or ineffective collaborative practices were that SLPs could do little to support communication access for students with MSD, and that there were fewer communication opportunities for the students as a result. Barriers to the provision and/or effectiveness of professional support from outside the school associated with attitudinal, school contextual and organisational issues are now discussed.
**Professional Identities and Conflicting Models**

*Shared meaning about purposes and practices.* The findings suggest that, despite their different professional identities, some teachers and SLPs had a shared meaning about the purposes and practices of communication intervention consistent with an enabling social discourse about disability, and professional notions of best practice. This shared meaning appeared to support collaborative practices that brought about positive outcomes for students with MSD.

*Conflicting models.* However, the findings also suggest that, in contrast, some teachers and SLPs held conflicting philosophies of communication intervention for people with MSD. Some teachers’ reported expectation of the traditional, “withdrawal model” of communication intervention conflicted with SLPs’ perceptions that this model was ineffective in supporting communication access for young people with MSD. Combined with some teachers’ perceptions that AAC and assistive technologies were not useful or beneficial, this philosophical conflict was an obstacle to SLPs’ implementation of best practices in communication intervention. However, one teacher reported conflict because the SLP practised the “withdrawal model”, and consequently there was no collaboration. The findings suggest the possibility that different professional groups may be influenced to differing degrees by different socio-professional discourses about people with disability, such as the medical and biopsychosocial models.

**Impact of School Context**

While it was not clear how teachers’ models of communication intervention interacted with the culture of their particular school, the findings were clear that multiple, complex school contextual factors described above influenced both teachers’ abilities to collaborate, and the extent of support that SLPs could provide in that context. This was consistent with Schmitt and Justice’s (2011, p.1) argument that schools are “complex host environments” for SLPs.

Positive school cultures were associated with support for teachers to meet with SLPs and develop and maintain individual communication programs. They were also associated with the involvement of SLPs at the whole school level. However, in schools with negative cultures where, for example, time constraints were a major obstacle for teachers, it was often difficult for SLPs to work there and make any positive contributions at all.
Organisational Issues
However, the findings regarding variable access to SLPs and the amount of time they were able to spend in a particular school indicated that factors associated with the SLP service delivery model also influenced the implementation of collaborative practices. SLPs were often not able to work with teachers, and have a physical presence in schools, for a sufficient time to facilitate effective collaboration.

Further, the findings highlighted that the ability of SLPs to implement best practices, such as working with other students in the class and influencing teachers’ communication practices and the physical organisation of the classroom, were also nested within the structure of their service at the organisational level. These findings are consistent with those of researchers who found that contextual factors across multiple levels interact to influence the implementation of interventions (Durlak & Du Pre, 2008; Fixsen et. al., 2009). These include not only the characteristics of particular practitioners, but also organisational capacity, collaboration between local agencies, ongoing professional development support within a supportive environment, and factors at the community level.

Families and the Home Context
In discussing influences on communication intervention and the roles of people outside the school, an emergent theme of the findings was the centrality of families and the home context in supporting the communication access of students with MSD. This was a somewhat unexpected finding, given the focus of research questions on the school context.

Teamwork and Family-Centred Practice
The finding that collaboration between professionals and families was crucial for supporting the communication opportunities of students with MSD is consistent with the literature (Giangreco, 2000; Hunt, Soto, Maier, Muller & Goetz, 2002; Iacono & Cameron, 2009; Knackendoffel, 2005). Participants perceived that there were a number of obstacles for families to collaborating with SLPs and their child’s school personnel. However, this was secondary data, and therefore requires further investigation. Home context is included in Figure 8.1, in the concentric circle representing People outside the School, to highlight the need for further research to inform this model. Areas highlighted as important urgent issues warranting further investigation are discussed here.
Families’ Attitudes, Perceptions and Beliefs
Participants raised concerns that some families’ attitudes, perceptions and beliefs presented barriers to collaboration with the school and communication intervention at home. However, little is known about the attitudes, perceptions and beliefs of families about their child with MSD and his/her communication options.

Families’ Capacity or Resources and Support Needs
Participants’ concerns about the impact of issues such as pressures in the home, cultural differences and socio-economic circumstances, on the capacity of many families to support their child’s communication access at home or at school, highlighted the need to explore families’ perceptions and experiences of supports and obstacles. While there has been little documented in the literature, the findings had several implications.

Cultural sensitivity. SLPs’ reports about difficulty ensuring successful communication between families who have a culturally and linguistically diverse (CLD) background, and their teachers and SLPs, suggest the need for services to continue to evolve in cultural safety and sensitivity and their capacity to support families with cultural differences.

Aboriginal families. SLPs in rural areas found that many of their clients with MSD came from Aboriginal families whose perceived priorities conflicted with their own notions of communication intervention. However, little is known about the discourses about disability that exist in rural, Aboriginal communities. It may be difficult to evolve services appropriate for children with MSD in Aboriginal communities without a greater insight into the views held about disability and communication intervention. There is further discussion about rural, Aboriginal communities in the next section.

Interactions between cultural and socio-economic factors. While SLPs reported that many of their families experienced both cultural difference and low socio-economic status, they did not describe how interactions between these affected the families. The findings suggest that there is limited understanding about interconnections between cultural difference and low socio-economic circumstances on families of children with MSD.

Geographical isolation. Further, SLPs in rural areas perceived that obstacles associated with cultural difference and low socio-economic circumstances were compounded by geographical isolation. However, they were not able to elaborate on
this perception, suggesting that the inter-connections may be complex and warrant further research to gain an understanding of the potential impacts on families of children with MSD.

**Geographical Location**

Another unexpected finding of this study was the perceived contribution of geographical location to the ability of teachers, families and SLPs to support the communication access of students with MSD. Findings from SLPs in regional and rural areas, some of whom provided an outreach service to remote areas, suggested that geographical isolation permeated all other influences on communication opportunities for students with MSD in rural areas. The findings suggest that: (a) access to professional development, (b) the cultures and capacities of schools, (c) SLPs’ ability to collaborate, and (d) attitudes towards people with disability and towards communication intervention were all further nested, and had complex inter-connections with, the geographical location. Findings also highlighted the potential role of emergent technology such as E-health (National Rural Health Alliance, 2011) in supporting the work of professionals in rural and remote areas. This theme informed the Geographical Location part of the model, represented in Figure 8.1 by the concentric circle surrounding People outside the School.

**Access to Professional Development Support**

Comparison of findings for participants in metropolitan and regional and rural areas, suggest that geographical isolation was an additional barrier to accessing professional development support. Teachers in rural mainstream schools who perceived that theirs was a positive school culture still reported little access to professional development. These findings suggest that teachers in rural areas may have been at particular risk of isolation and other issues discussed above, that diminished their ability to support students’ communication access. The implications of these findings include the need for particular attention to the professional development and other support needs of isolated teachers, and this is elaborated below in Government Departments.

**Impacts on Schools**

*Type of educational setting.* The findings suggest an interaction between geographical location and type of educational setting attended by students with MSD. Reports that students with MSD in metropolitan areas attended predominantly SSPs, while in regional and rural areas students attended mainstream schools, including their local neighbourhood school in rural and remote towns, are consistent with Foreman et
al. (2004). These findings appear important because as described below, complex interactions between the type of educational setting and geographical isolation may have adversely impacted on the capacity of some schools to meet the communication needs of students with MSD.

**Limited external support.** The findings suggest that schools in regional and rural areas were less well supported than schools in metropolitan areas, in terms of resourcing and professional development and other support for teachers. Limited external support from both the state education system and SLP services was perceived to contribute to the isolation of schools in rural and remote areas in particular. The association of this “neglect” with lack of exposure to new philosophies and practices, and hence perpetuation of disabling attitudes and inappropriate practices, suggests that geographical isolation contributed to negative cultures and/or limited capacities of schools to support the communication of students with MSD.

An interesting finding of this study was that teachers in the SU on the periphery of the metropolitan area reported similar experiences to teachers in rural mainstream schools. Their reported experiences imply that their school was an outreach of metropolitan, centralised services, as discussed below under Government Departments.

**Impacts on Speech-Language Pathologists (SLPs)**

Similar to school contexts, the findings suggest some differences for SLPs in metropolitan versus regional and rural areas in terms of supports and obstacles to implementing best practices.

**Support from colleagues.** The level of collegiality experienced by SLPs in metropolitan offices was similar to the sense of community described by teachers in SSPs, and other schools with positive cultures. SLPs in regional and rural areas, however, appeared to have less access to colleagues because of the geographical distribution of their offices. The senior SLPs were aware that the relative isolation of therapists in regional and rural areas could present obstacles to their ability to support students with MSD, particularly if they were “early career” therapists.

**Resources.** The findings suggest that while SLPs in metropolitan areas and the larger regional centres were well resourced, those in smaller, rural areas had fewer resources in their offices and had to travel long distances to access resources. These findings imply that SLPs in small, rural offices may face obstacles to supporting the
communication of students with MSD, and that particular attention needs to be paid to meeting their support needs.

**Impacts on Outreach Speech-Language Pathology (SLP) Service**

The findings had implications not only for individual SLPs but also for the delivery of outreach SLP services.

*Inequity in service provision.* SLPs reported differences in the amount of contact with students with MSD, their teachers and families associated with their geographical location. These findings suggest inequity in access to support from SLP services for people in rural and remote towns, compared to those closer to regional centres. This is consistent with the finding of Verdon, Wilson, Smith-Tamaray and McAllister (2011, p.241) that people living in approximately one third of rural communities in New South Wales (NSW) are beyond “reasonable travelling distance” to SLP services. This apparent mal-distribution of services had implications for the government department responsible for these services, discussed in greater detail in the relevant section below.

*Limited nature of the service.* The findings also suggest that as a consequence of infrequent contact, the service provided to children with MSD, their families and teachers in rural and remote areas was limited. One of the implications of this limited service was insufficient collaboration with teachers to build capacity in schools where inappropriate practices had been observed. This finding also suggests that the neglect of schools in rural and remote areas is partly associated with the outreach SLP service delivery model.

It also appears that inter-connections between these obstacles associated with geographical location placed students with MSD in rural areas at increased risk of limited communication opportunities. These findings have implications for how government departments structure support for students with MSD in rural and remote areas.

**Community Attitudes**

Findings about prevailing attitudes, in particular rural communities, suggest that teachers, schools, and also families may be nested in particular local cultures that influence them. SLPs believed that community attitudes had a major influence on their possible impact in rural and remote places; and that prevailing attitudes could equally be a barrier, or an enabler, to communication intervention for children with
MSD in that community. Subtle differences in attitudes and perceptions in different rural and remote communities meant SLP services needed to be provided differently in each rural or remote town.

In addition, SLPs reported that in rural and remote towns, there was some lack of trust in services due to their inconsistent and limited nature, to the extent that even a local support person known in the community, could still be treated with suspicion by some in that community. The findings about rural community attitudes also have implications for the design of SLP services. Effective services may need to allow for these particularities, and therefore be contextualised, as discussed below under Government Departments. Another factor requiring government support is access to information technology.

**The Role of Technology**

The findings suggest that the utilisation of new technologies such as E-Health (National Rural Health Alliance, 2011) that could potentially mitigate the isolation of teachers and SLPs, and enhance collaborative practices, has yet to be realised. There was reportedly little access to video-conferencing technologies, such as Skype, in rural and remote towns. The findings also indicated that, while such technology has an important role to play in the professional development needs of teachers in rural areas, this technology was not widely available as yet. Improvements in this service may be realised with the imminent implementation of the National Broadband Network (National Rural Health Alliance, 2011).

**Government Departments: Organisational Cultures and Structure of Services**

The findings discussed above clearly highlight the role of government departments in supporting communication access for students with MSD, particularly in rural and remote areas. The findings have implications for the state education system and government department responsible for provision of SLP services to this population. This theme informed the Government Departments part of the model, represented in Figure 8.1 by the concentric circle surrounding Geographical Location.

**The State Education System**

Teachers were aware that, ultimately, the communication access of students with MSD, and the support received for meeting these students’ educational and communication needs, were nested within the state education system, particularly in the way services were provided locally in the district or region. The findings had
implications for the organisational culture and the structure of capacity building support.

**Culture and agenda.** Participants’ perceptions that the state education system had limited philosophical commitment to the education of students with MSD, suggests that enabling philosophies about these students may not have been positively promoted throughout the system. The findings therefore highlight the potential of the organisational culture to be an obstacle.

**Capacity building.** The findings also suggest that the organisational culture was manifested by limited capacity building support to schools for meeting the educational and communication needs of students with MSD. As discussed above, this was particularly the case for mainstream schools in rural areas where there may have been few such students.

The reports from one rural, mainstream school about the installation of ramps and modified desks, suggest that infrastructure support was available from the department. However, limited additional departmental support was an issue for many teachers and schools, particularly those attempting to support a student with MSD with little or no experience of such students. The findings suggest that the state education system needs to take a more active role in supporting the professional development and resource needs of teachers in mainstream settings.

The findings suggest that there was little support from district or regional offices for teachers who were relatively isolated and needed support from colleagues outside their particular school. For example, the findings indicate limited avenues for accessing support from personnel such as visiting specialist teachers and special education officers. SLPs characterised the lack of such staff as part of the neglect and isolation of schools in rural and remote areas.

The findings also indicate little facilitation of opportunities for teachers in mainstream, rural settings (either in segregated or mainstream classrooms) to network and have professional development with other teachers in the same area. Such local groups could serve a similar professional development support function to collegiality among staff in schools with a high level of experience and expertise. These findings highlight ways in which the state education system can support professional development and innovation for relatively isolated teachers.

The findings also indicate that mainstream schools (including those with segregated classes) required additional funding for support staff and resources, to be
able to meet the educational and communication needs of students with MSD. The findings highlight the important role of AAC systems and other assistive and inclusive technologies in schools. The costs associated with these resources were often prohibitive for schools, suggesting a role for the state education system in funding and possibly building a pool of easily accessible AAC resources.

**Department Responsible for Speech-Language Pathology (SLP) Services**

Limitations in external support for teachers of students with MSD and their schools were also connected with the department responsible for SLP services. Barriers to collaborative practices discussed above, such as teachers’ difficulties accessing SLPs and brief interventions, were associated with apparent inequities in service provision and other features of the service structure.

*Inequities in service provision.* As mentioned above, the findings suggest mal-distribution of SLP services for students with MSD. While mainstream schools (with segregated and mainstream classes) in regional, rural and remote areas reportedly received little service, the participant in a rural SSP reported receiving a regular SLP service. In addition, the metropolitan SSP reportedly hosted so many therapists that this actually created obstacles for teachers to implementing communication strategies in the classroom, and collaborating with individual SLPs.

Potential reasons for inequities may have been associated with the structure of the service, as discussed below. However, reported inconsistencies in service provision between individual rural, mainstream schools also raised questions about teachers’ awareness of service request processes.

*Structure of speech-language pathology (SLP) services.* The impact of organisational structure on external support for teachers and their students with MSD was highlighted by participants’ experiences of changes associated with re-structuring of the government department responsible for SLP services. While the centralisation of therapists into large metropolitan offices provided greater support for the SLPs, it may have been associated with mal-distribution of services because it resulted in support being less accessible for students with MSD and their teachers on the periphery of the metropolitan area. The implication is that this centralisation of SLP services compounded the isolation of teachers who received limited support from within their school context. One participant also described it as a form of institutionalised discrimination against young people with MSD who live on the periphery of metropolitan areas or in regional areas. However, the findings indicate
that there were other aspects of service delivery that presented obstacles to the support that could be provided by SLPs.

**Discrepancy between organisational culture and structure of services.**

Findings from SLPs indicated a potential conflict between the enabling philosophies actively promoted within their organisation and the structure of the service. This was specifically a conflict between the new paradigm of communication intervention aimed at influencing environments (such as the school and home contexts), and a service request process structured to target individuals (rather than contexts).

This structural factor may have contributed to services being mal-distributed or inequitable, by virtue of being concentrated in contexts with a greater number of students with MSD, or teachers who consistently made service requests. The implication is that the service is not structured to influence environments, and build capacity in contexts, that would result in lasting communication access for students with MSD. It highlights that effective external support services may need to be based on the needs of particular contexts, rather than solely the number of students with MSD in a context. It appeared that contexts receiving the most service, such as the metropolitan SSP, were not necessarily the contexts that needed the most external support in terms of capacity building. It could be argued that a context with only one or a few students with MSD may have greater need for capacity building, particularly if it is a mainstream setting.

However, the findings also suggest that achieving a fit between appropriate external support, and the need for capacity building within a particular school, is a complex issue. SLPs perceived that there were particular schools in need of external support to meet the educational and communication needs of students with MSD, who either resisted or did not seek this support. This issue warrants further consideration by researchers and policy makers in order to inform a comprehensive model for enhancing the communication opportunities of students with MSD.

Another obstacle associated with a service request process that targeting individuals was that it did not support SLPs to work with other children in the classroom, including peers without disability in mainstream classrooms. This may have therefore contributed to SLPs not including peers without disabilities in communication intervention. Clearly, this was an obstacle to realising the potential for communication opportunities in mainstream settings.
Further, a caseload of individual clients potentially all in different schools, resulted in brief visits that meant SLPs could have limited influence on their school contexts. Therefore, the findings imply that the service request process is an organisational structural barrier to the implementation of best practice. The findings also demonstrate the importance of organisational philosophies and structures being aligned. While SLPs complained about some teachers’ and families’ adherence to an outdated medical model of disability, a service structure that targets individuals may inadvertently reinforce this model.

Other aspects of service processes were also linked to limited support for the communication access of students with MSD. These included the prioritization system and waiting list. Because of the low priority given to the communication needs of students with MSD, these students reportedly waited years for a service, or were not seen at all. Importantly, this meant that the service was not responsive at the time that teachers and students needed support. These structural issues were further compounded by staff shortages, particularly in rural and remote towns, and the small number of SLPs in regional and rural areas for the large geographical area covered. These findings reinforce the inter-connectedness of geographical isolation and implications for service delivery by government departments.

A potential outcome of these organisational structural barriers was under-utilisation of the service. These issues may have contributed to the few service requests received for supporting the communication of students with MSD, and teachers’ “giving up” on making referrals.

**Limited Collaboration between Departments**

The findings imply that these separate departments have different cultures that may contribute to fostering different professional identities and organisation of work. In addition to the obstacles associated with the separate departments, the findings suggest that limited co-operation between the departments at a regional level presents obstacles to collaborative practices. The cultures and service delivery structures of these government departments may also both reflect and influence different social discourses about young people with disability and their possibilities for participation in education and the community.
Societal Factors: Discourse, Inclusion and Equality

Social Discourses about Disability

One of the major implications of the findings is that there are complex interconnections between individual teachers’, SLPs’ (and others’) attitudes towards communication options for young people with MSD, and the prevailing discourses in particular school contexts, local communities, and different government departments. The findings suggest that these are further nested within broader social trends, as discussed below.

Organisational and socio-professional discourses. It appears that because an enabling discourse about communicating with students with MSD was not actively promoted throughout the education system, it co-existed with implicit, default disabling attitudes among some staff. The findings reveal conflicting, simultaneously existing professional discourses: (a) that students with MSD have the right to enjoy communication opportunities in mainstream school settings, versus (b) that segregated education is more appropriate for students with MSD. It is possible that limited support within the state education system may have reflected broader social discourses about the participation and communication possibilities of young people with MSD. However, it appears that this limited support also perpetuated assumptions about the inappropriateness of mainstream settings for students with MSD. Therefore, limited support within the state education system may serve to perpetuate segregated education, and the continued restriction of communication opportunities for students with MSD.

Community attitudes and perceptions of students with MSD. Participants’ reports also suggest the existence of competing discourses in the community about the social inclusion of young people with MSD. Given that these were participants’ perceptions, further research is required with members of the general public.

Participants’ perceptions that these social discourses influenced parental choices about whether to send their child with MSD to special schools in metropolitan areas or regional centres, or their local, neighbourhood school, also warrant further investigation. The dominance of a discourse that social inclusion is not suitable for people with MSD, may perpetuate their concentration in segregated educational settings where they are dependent on their teacher as their main communication partner. It may also perpetuate mal-distribution of support services, which then disadvantages young people with MSD who are not in these settings, particularly in
rural areas. Therefore, the findings highlight the importance of continued efforts to promote enabling social discourses about people with disability.

**Social Inclusion**

*The role of schools.* Teachers were aware of the importance of social inclusion for communication opportunities for students with MSD. While they perceived that the education system had a role in facilitating social inclusion for students with MSD at school, and preparing them for community participation, it appears that neither was happening well. Rather, the findings suggest that students with MSD continue to be at risk of segregation/social exclusion in school settings, and this is a factor contributing to their restricted communication opportunities.

As discussed above, there is a need to evolve organisational culture, and build capacity in schools, to socially include these students. Given that these findings have implications for the best practice of educating students with MSD in least restrictive environments, the evolution of inclusive education particularly requires attention. Further, limited development of communication skills, and inadequate transition processes for leaving school, presented obstacles to communication access in the community.

*In the community.* However, some participants also perceived that barriers persisted in the community to young people accessing community places and community participation. One participant perceived that the devolution of a large residential facility for young people with MSD actually had socially-isolating outcomes. While analysis of the impact of social policy was beyond the scope of this study, this finding suggests the complexity of implementing social policy designed to increase social inclusion.

**Social Change**

The implication of these findings is that the identified socio-structural obstacles restricted the communicative interactions of students with MSD, both at school and in the community. As some participants stated, there is a need for social change to create conditions in which students with MSD may have enhanced opportunities for communication. The model that follows highlights this need for change.

**In Conclusion**

The findings of this study support the conclusion that the communicative interactions of students with MSD are nested within complex systems. Consistent with a
complexity perspective (Haggis, 2008; Kuhn, 2007; Mason, 2008; Packman & Kuhn, 2009), interactions over time among the multiple factors identified contributed to the amount of communicative interactions available to students with MSD.

The differences found between particular contexts, where these factors could either support or hinder communicative interactions, can also be understood from a complexity perspective. The principles of self-organisation and emergence are used to describe how practices evolve or emerge from the interactions between factors in a particular context, within the constraints of that context and of broader external systems (Haggis, 2008; Kuhn, 2007; Mason, 2008; Packman & Kuhn, 2009). These concepts can be applied to explain why some school contexts, for example, evolved positive cultures and enabling practices while others did not, within the constraints of geographical location and the education system.

The momentum or “snowball effect” (Mason, 2008, p.42) generated from the interactions between factors in a particular context can be used to explain the perpetuation of a school’s prevailing, dominant culture and why some schools appeared “stuck” in negative cultures and practices. These understandings have implications for bringing about changes so that conditions conducive to communication access for students with MSD might evolve. The model is designed to propose pathways for these changes.

**A MODEL FOR ENHANCING THE COMMUNICATIVE INTERACTIONS OF STUDENTS WITH MSD**

**Principles of the Model**

While self-organisation in a particular context, such as the metropolitan SSP in this study, reflects the potential of the whole system to self-organise in the direction of enhancing communication access, the findings suggest that powerful and sustained changes are required at all levels. This is consistent with complexity theory (Mason, 2008), implementation science (Durlak & Du Pre, 2008; Fixsen et al., 2009) and educational change literature (Fullan, 2001). Mason (2008, p.42) stated that change is required at the “macro-structural level” as well as at the individual level to generate a new, dominant momentum in the desired direction until new cultures and practices emerge that self-sustain. Hence, changes at all levels in the proposed model may
create momentum in the direction of enhanced communication opportunities for students with MSD.

The findings highlight that while individuals can be agents of change and innovation, their efforts need to be supported at other levels. Equally, organisational, imposed change, or bringing about change in one factor only, is unlikely to produce changes in practices that will enhance communication opportunities for students with MSD. Therefore, consistent with complexity theory, change requires co-operation and participation rather than involving control (Mason, 2008). Further, sustained effort is required because, as the findings of this study indicate, and other authors have found (Fixsen et al., 2009; Fullan, 2001), change and the implementation of new practices can take 2 to 4 years.

Finally, consistent with findings of this study, and the statements of other authors (Durlak & Du Pre, 2008; Fixsen et al., 2009; Haggis, 2008; Kuhn, 2007; Mason, 2008), change needs to be driven by and appropriate to the particularities of local contexts. Therefore, it is recommended that readers identify factors and/or levels represented in the model at which they can participate. They can then analyse their own particular needs to align their practices and contexts in the direction of enhanced communication access for students with MSD. The levels at which changes are proposed are represented in Figure 8.1 presented earlier and elaborated below.

**Changing Individuals’ Attitudes and Practices**

Given the findings about the importance of teachers’ and SLPs’ attitudes, perceptions and beliefs for students’ communication opportunities, addressing these is the first part of this model. While findings suggest teachers’ assumptions about their students’ ability to communicate may be implicit, evidence from turning point experiences also demonstrate that reflecting on experiences with students could confront individuals’ assumptions and stimulate changes in both beliefs and practices. Individual professionals can develop reflexive practices around their values, attitudes and beliefs about students with MSD and their communication possibilities, make these explicit and reflect on the implications for practice. This is represented in the innermost circle in Figure 8.1. While exposure to innovation and enabling philosophies, and practising skills and strategies are listed at this level, for teachers they are embedded within the school context, and so are discussed below.
The School Context
Aspects of the model related to the school context are represented in the first concentric circle in Figure 8.1.

The Classroom Context
Given the findings about the needs of particular classrooms, these could be identified and supports put in place that might include:

- modifying curriculum, interactive class activities, augmenting classroom activities, introducing more or different activities to promote engagement and create opportunities for communication,
- ensuring that the physical environment of the classroom enables access to activities and peers, and
- adequate staffing with learning support officers (LSOs).

Given the findings regarding limited peer interaction programming may be required, such as peer support arrangements during the school day and in specific class activities, to include the student with MSD. Peers without disabilities may also require support to be able to communicate with students with MSD. However, this requires further research. This support is required from within the school context and/or outside the school, as discussed below.

School Culture
Given findings about the importance of a positive school culture, staff could be encouraged to participate in the evolution of shared meaning, through a process of developing a vision and goals for meeting the communication needs of students with MSD. This may require regular, ongoing opportunities for teachers to discuss and gain a deeper understanding about both existing, and new values and practices (Fullan, 2001) relevant to supporting the communication of students with MSD, such as the “core competencies” proposed by one participant. The development of shared meaning is designed to facilitate continuous improvement in practices.

School Capacity
The principal. Given findings about their important roles, principals could also be involved in an evolutionary process of exposure to enabling philosophies, and reflexivity on personal values and beliefs. Further, these need to be connected with the development of policies and procedures that support innovation and capacity
building in the school, such as facilitating the evolution of shared meaning among the staff.

**Staff support and development.** Given findings about the gaps in teachers’ knowledge and limited professional development, schools have a role to play in supporting teachers’ exposure to innovation; new knowledge, skills, strategies and enabling philosophies. This could be through access to traditional forms of professional development or utilising new and emergent technologies such as E-Health.

The findings also suggest that schools could support teachers’ attempts to implement knowledge, strategies or activities with opportunities for practice and developing reflexivity. This is supported by the educational change literature that recommends individual professionals reflect on the purposes and outcomes of their practices in order to deepen their understanding and make what Fullan (2001, p.51) calls “fundamental changes in conception”. Further, because professional development is a process inter-connected with multiple levels, it is represented as a bar across Figure 8.1.

Given findings about the crucial role of collegiality in meeting teachers’ professional development needs and building capacity within a school, these opportunities for practice and reflexivity could be further facilitated through regular, on-going opportunities for staff at a school to meet and learn together. Formal supervision or informal mentoring relationships could also be encouraged, creating the “sense of community” discussed by some participants. This is similar to Fullan’s (2001, pp.45-47) “communities of practice” or “professional learning communities”. Further, these communities need to be an integral part of teachers’ working lives, consistent with complexity theory (Packman & Kuhn, 2010) that innovation is a continuous, evolutionary process. Such opportunities for collegiality are designed to encourage the conditions from which a positive culture of professional development may evolve.

**Resources.** Given the findings about the necessity of resources, schools and teachers should have access to appropriate, adequate materials, such as AAC systems and resources, assistive technologies, and other materials for augmenting and modifying the curriculum. Schools could also self-organise by developing their own resources, and utilise local networks to draw on external sources of support for funding.
**Communication Intervention: Implementation of Best Practice**

There needs to be promotion, at multiple levels, of the supportive role of outside professionals (SLPs and visiting teachers) in building the capacity of individual teachers within specific classrooms, and the capacity of individual schools as a whole. Because communication intervention is a process with implications for multiple levels, it is represented in Figure 8.1 as a bar across all concentric circles. However, as “people outside the school”, SLPs and visiting specialist teachers are represented in the second concentric circle.

**Capacity Building in Schools**

Individual schools could collaborate with SLPs to design professional development and other support into the school that meets their particular needs. As one participant recommended, they could collaborate in the development of core competencies for meeting the communication needs of students with MSD, both in the communication practices of all staff and in the organisation of classrooms and other spaces in schools.

**Shared Meanings**

There needs to be encouragement and opportunities for teachers and SLPs to evolve shared meaning about the purposes and practices of communication intervention. This may involve making explicit and discussing beliefs about the capacity of students with MSD to communicate and participate in classroom activities. It may involve discussing beliefs about the communication options available to students with MSD, in particular AAC systems. Teachers and SLPs need to discuss their perceptions of how communication intervention should proceed, including their beliefs about their roles and responsibilities, and how to work together. Finally, the findings indicate the need to develop shared understanding of terminology, such as visual communication systems.

**Support for Collaboration**

Collaboration requires support at multiple contextual levels. At the school level the evolution of a positive culture that encourages improvement in practices could include support for collaboration through release time for teachers to meet with SLPs. School staff also need to take actions to welcome SLPs into the school environment. At the organisational level, the SLP service needs to be structured to allow SLPs to have a regular, physical presence over a long period of time at particular schools, as elaborated under Government Departments.
Geographical Location
This dimension of the model is represented by the third concentric circle in Figure 8.1.

Professional Development Support for Teachers
The findings suggest the need for developing different approaches to supporting the professional development and other support needs of teachers in regional and rural areas. These teachers need to be supported to form professional learning communities with other teachers in the area. The former special education network described by one participant was an example of such support. Teachers could be supported to establish mentoring relationships with more experienced teachers in other schools, and/or visit other schools to observe practices, and to have regular contact using Skype technology.

Support for Schools
The findings affirm the requirement for external support appropriate to meeting the capacity building needs of isolated schools, so that they can meet the communication needs of students with MSD. This is discussed in detail under the section of the model for Government Departments.

Support for Speech-Language Pathologists (SLPs)
The findings for SLPs in regional and rural, geographically dispersed offices suggest the need to continue to develop and improve current approaches to supporting SLPs in small rural offices. In the case of early career therapists, there is a need to have another SLP and/or multi-disciplinary team members in the office, for at least part of the work week. The findings also indicate the importance of regular contact with other SLPs in the region, either by visiting each other, or through the use of Skype technology.

Outreach Speech-Language Pathology (SLP) Service
It appears from the findings that there is a need to reconceptualise services to rural and remote areas. Findings regarding the different cultures and capacities of schools, possible complex circumstances of families, and different community attitudes suggest that services need to pay attention to the particularities of different rural communities. This implies designing services that are sensitive to the particular contexts of students with MSD, and therefore able to support lasting changes in
communication practices and access. This requires organisational changes in delivery of services, as discussed below under Government Departments.

One of the promising findings from the study was the benefits of working with a local support person in each rural and remote town. It appears that in rural and remote Aboriginal communities in particular, it is necessary to further develop the practice of working with a local, Aboriginal support person in the provision of appropriate services to such communities. This model requires further consideration and investigation and needs to be included in a model for capacity building in rural and remote places to support the communication of their young people with MSD.

The Role of Technology in Rural Areas
Increased access to video-conferencing technologies such as Skype in schools and SLPs’ offices and community places is required to facilitate increased frequency of contact between teachers, families and SLPs, and reduce the amount of travel for SLPs providing outreach services. So, as previously mentioned, the NBN has enormous potential to enhance support in rural and remote areas (National Rural Health Alliance, 2011).

Government Departments: Organisational Culture and Structure of Services
This dimension of the model is represented by the fourth concentric circle in Figure 8.1.

The State Education System
The findings suggest that the state education system needs to adopt enabling philosophies for educating students with MSD, and actively promote this throughout its offices and schools. The state education system then needs to appropriately support teachers and schools who have students with MSD. It can do this through supporting capacity building in schools, by:

- increased time and funding to access in-services/workshops;
- increased access to visiting specialist teachers, and regular visits to schools by other support staff (such as integration officers);
- facilitating supervision or mentoring, and professional learning communities amongst teachers in different schools, as described above for teachers in isolated schools;
• facilitating relevant professional development to occur for staff at the school, during the school day. In addition, recruit one or more teachers at each school who are up-skilled to be the “disability or communication support people” for that school;
• facilitating the development of “special interest groups”, and support teachers who want to develop particular areas of interest and expertise, such as in assistive technologies; and
• developing a shared resource base in AAC.

In addition, the use of interpreters needs to be promoted throughout the state education system and become part of the usual practices of schools in culturally and linguistically diverse communities.

The findings also yielded specific recommendations for improving support for students with MSD in rural and remote schools. The need for different, flexible strategies for improving the professional development support of teachers in isolated schools has already been mentioned. In addition, there is a need for better resourcing of isolated schools, particularly those with a high proportion of students from an Aboriginal background. Participants recommended that additional funding could be provided to schools to use for their own capacity-building projects, consistent with more contextually-sensitive services. There also appears to be a need for more consistent support across rural and remote towns for the school attendance of Aboriginal children with MSD.

**Government Department Employing Speech-Language Pathologists (SLPs)**

The commitment of the department employing SLPs to capacity building, as indicated by the findings, should continue in terms of evolving its knowledge base and the practices of its staff. The recommendations made below may facilitate the continued evolution of SLP services in regional and rural areas.

**Structure of services.** The findings suggest that changes are required to address potential mal-distribution of services by decentralising the location of services to make them more accessible. There is also a need to design more context-sensitive services that focus on the needs of contexts or communities for capacity-building rather than concentrating services where there is the greatest number of students with MSD. Decentralisation and having a physical presence in a community will enable the SLP service to evolve with that particular context to better meet needs. This is
consistent with Wakeman and Humphries’ (2011) discussion of effective health services in rural areas.

**Service request processes.** This could involve reconceptualising the process for requesting a service, away from targeting individuals to focusing on contextual factors, such as inexperience of staff, and the needs of other children in the classroom. This would support teachers to incorporate communication practices into the classroom context, and facilitate support for peers without disabilities in mainstream settings. Such changes in service request processes are also required to:

- find ways for the service to be more responsive at the time that requests are made. Attempts are being made by metropolitan SLPs to explore ways to do this, for example through monthly drop-in clinics at schools, and
- target particular stages or transitions for both students and their teachers, for example from primary school to high school.

**Contextualising services.** There was consensus among SLPs that an approach to bringing about these changes was to align SLPs more closely with their particular contexts. This could involve SLPs either having a regular presence, or being based in schools, as occurs in other states of Australia. Centralisation of services that are proving inadequate for meeting the needs of people in outlying areas are being increasingly questioned (Brett, 2011). As more people are forced to, and encouraged to re-inhabit regional areas, better service provision to these areas will need to be confronted (Brett, 2011).

Further, the findings of emotionally-supportive environments and enabling attitudes towards students with MSD in small, rural schools, as well as enabling attitudes in some rural and remote communities, suggests the need for further research in these places to gain a better understanding about how to promote relevant services that can build on these supports.

**Co-operation between Government Departments**

The findings suggest that there is a need to improve, or facilitate closer collaboration between departments providing services for students with MSD and their families. This is a need to share information about services and develop a shared framework for supporting collaboration, for example between SLPs and teachers. Participants recommended the development of shared guidelines for the development of IEPs for students, so that this can support SLPs and teachers to work together. Attempts are
underway by metropolitan SLPs through dialogue between senior SLPs, managers and executive and teachers at some schools. Another approach to improving collaboration would be to bring teachers and SLPs together into a shared organisational culture.

**Societal Factors: Discourse, Inclusion and Equality**

This dimension of the model is represented by the outermost concentric circle in Figure 8.1. The findings suggest a continued need for the promotion of enabling discourses about people with disability throughout the broader society. Consistent with complexity theory (Kuhn, 2007), the continued evolution and application of biopsychosocial models of disability, such as that used in the International Classification of Functioning, Disability and Health-Child and Youth version (ICF-CY) (WHO, 2007), may contribute to evolving practices and structures for enhancing communication opportunities for students with MSD.

The findings suggest the need to support the social inclusion and participation of students at school and in the broader community. All aspects of this model support this need for change. These specific recommendations were also made by participants:

1. Programming for peer interaction and social inclusion at school,
2. Teaching young people without disabilities how to interact with peers with disabilities,
3. Setting communication goals for accessing communication outside school,
4. Running community access programs to create opportunities for communication with members of the general public, such as purchasing items at the local supermarket, and,
5. Supporting families to build social networks that facilitate interactions with children in their local community, and to access other organisations for recreation activities and respite.

The findings also highlight the importance of a societal commitment to the evolution of inclusive education.

Finally, the findings highlight the need for complex, socio-structural change in order to improve access to opportunities for communication for young people with MSD. This model is intended as a contribution to bringing about this change.
LIMITATIONS OF THE STUDY

The methodology employed in this study drew on the philosophy that social reality is defined by personal and collective narratives (Riessman, 1993; Coffey & Atkinson, 1996). The supports and obstacles identified were derived directly from participants’ reported perceptions and experiences. However, reliance on self-report data could be seen as a limitation of the study for a number of reasons. Researchers acknowledge problems inherent in the interview process associated with participants using the situation to make a particular point or create a certain impression for the researcher (Ezzy, 2002; Eisenhart & Howe, 1992; Gubrium & Holstein, 1995). Participants may not always be honest in interviews and it may be difficult for researchers to elicit participants’ true perceptions (Creswell, 2008). Further, the self-report data was not triangulated with observational data to cross-check the factors identified that may have been observable, such as limited presence of LSOs in classrooms.

As is customary with qualitative research, a small number of participants were involved in the study. The teachers came from a small number of school contexts: for example four teachers worked in one SSP and five teachers worked in one SU. While this yielded information about differences within the same context, it may nevertheless have been a limitation in terms of achieving a broader range of views. Therefore, results should be interpreted in relation to the particular groups of participants in their particular circumstances. Further research is required to determine whether the supports and obstacles identified in this study apply more generally to groups of teachers and SLPs in different situations, such as geographical areas.

Whilst the role of families of school-aged children with MSD was an emergent theme, it was not within the scope of this study hence the views of families are missing from this study. The views of other important actual or potential communication partners identified by the participants were also missing from this study. This included peers without disabilities and LSOs.

It must also be recognised that teachers and other communication partners are only half of the dyad in a communicative interaction. While the focus was on the experiences of teachers and SLPs, the perspectives of students with MSD about the frequency and quality of their communicative interactions were missing from this study. The difficulty in “getting at” the lived experiences of students with MSD remains a challenge in this field of research (Dennis, 2002; Wright, 2008) and limits the ability to produce emancipatory outcomes for these individuals.
DIRECTIONS FOR FUTURE RESEARCH

Students with MSD, Their Peers and Peer Interaction

Further research with students with MSD is required to gain deeper insight into their perceptions and experiences of their communicative interactions with a variety of partners. Given the findings about limited peer interaction in mainstream classrooms, further research is also required with their peers about their experiences communicating with students with MSD. This research will contribute to an understanding of the support needs of peers, and ways to facilitate more interaction.

School Cultures

Given the importance of their role, further research is required with principals about their perspectives on the education and communication needs of students with MSD. Participatory action research could also be undertaken with groups of staff to identify inter-connected factors in their particular school context, and the changes that might align them in the direction of enhanced communication opportunities for students with MSD at their school.

Communication Intervention/Collaboration

SLPs recommended further exploration of the needs of teachers in specific schools, so as to structure professional development and other support into schools that would be effective in influencing the context. Further research could document instances where SLPs are involved in practices that contribute to building a positive culture and capacity in particular schools or communities, so that these practices could be evolved.

Families

Given the emergent theme of the role of families, further research is required with families about: (a) their attitudes, perceptions and beliefs towards their child with MSD and his/her communication options, and (b) their experiences of factors that support or hinder their ability to support their child’s communication needs. In particular, there is a need to gain an understanding of the values and beliefs held by rural, Aboriginal families about their child’s disability and communication options.
There is also a need to explore the inter-connections between cultural and linguistic difference and low socio-economic circumstances, and how these are experienced particularly by families in rural and remote areas.

Given the importance of collaboration, further research is also required with parents about their perceptions and experiences of collaborating with schools. Participants gave second-hand reports of families in rural and remote towns dissatisfied with their child’s schooling. Further research would yield the perspectives of parents on the culture/philosophy of their particular school, and how this influences the education and communication opportunities of their child with MSD.

**Speech-Language Pathology (SLP) Service Delivery**

The issues of inequities in SLP service provision for students with MSD, and potential contributing factors require further investigation. Greater understanding of these issues may contribute to the design of more effective services, particularly for students with MSD in rural and remote areas. Further research with school personnel, other stakeholders in particular communities and SLPs providing outreach services, about needs in rural and remote areas would contribute to the evolution of the contextualised services discussed. This could include research into the potential application of information technology and E-health in rural and remote areas for supporting communication intervention.

**Social Discourses and Inclusion**

Further research is required with members of the general public about their views on the communication opportunities, and community participation possibilities, for young people with MSD. There is a continued need for research into the implementation of inclusive practice in education and of social policy in the broader community to promote the social inclusion of young people with MSD. This research may contribute to the evolution of other socio-structural changes in the broader society.

**Community Development and Participatory Action Research**

Finally, future research could involve use of the framework provided by the ICF-CY (WHO, 2007) to develop tools for communities; teachers, parents, peers, and others, to analyse the contextual factors supporting or hindering communication opportunities
for young people with MSD in their community. Participatory action research may be a vehicle for communities to identify the changes needed in their particular context to enhance communication opportunities for young people with MSD.

**SUMMARY AND CONCLUSIONS**

This study explored potential reasons for the reported low frequencies of communicative interactions of students with MSD from the perspective of complexity theory. Teachers and SLPs working with students with MSD were asked about their perceptions and experiences of supports and obstacles to communication opportunities for these students. They identified a broad range of contextual factors perceived to influence students’ communication opportunities.

The factors identified included the effects of students’ impairments and health conditions, as well as teachers’ and SLPs’ own characteristics. However, teachers and SLPs also talked about environmental factors, such as the attitudes, perceptions and beliefs and practices of other people, and the availability of resources and infrastructure in the school, home and community contexts. They spoke about the influences of contextual factors on professional development and communication intervention, as well as the influences of the latter on students’ access to communication. Issues associated with geographical location, government departments and society, such as discourses, policies and structure of services, were also discussed. Therefore, contextual factors that could support or hinder communication opportunities were located at multiple, nested levels.

The influences of these contextual factors were found to be complex. There were many multi-directional interactions between factors at different levels that produced effects resulting in supports or obstacles. Further, it was found that the contextual factors could act as both supports and obstacles depending on details of individual students’ particular contexts. In addition, the contextual factors showed patterns of evolution in particular contexts, for example individual schools, creating particular cultures and practices that influenced the communication opportunities of students with MSD.

Finally, the results of the study informed the development of a model. The model is intended for individuals and groups, such as staff at a school or policy makers within government to analyse the influences of their cultures, policies and practices on communication opportunities for students with MSD. The model
emphasises both the roles of individuals, as well as sustained co-operation at multiple levels to bring about systemic changes that may contribute to enhancing frequencies and quality of communicative interactions for students with MSD.
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